

**NON-CONFIDENTIAL**

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1 **Request IR-1:**

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3 **Reference: Appendix 6.03 slides 14 and 18 and Application, Section 6.3 Alternatives**  
4 **Analysis.**

5

6 **(a) Please provide all computations showing the capital and O&M costs, the term, the**  
7 **financing (interest rate) assumptions, and any other relevant information used for**  
8 **wind resources to arrive at an \$80/MWH levelized cost as shown on slide 18 and in**  
9 **Figure 6-3 of the Application.**

10

11 **(b) What is the specific basis for NSPML's projected costs for installed indigenous wind**  
12 **power? Please provide all supporting documentation.**

13

14 **(c) Please confirm or explain otherwise that you use the same real capital costs per kW**  
15 **installed for the wind additions in 2019, 2028, 2034, and 2037 in base and low load**  
16 **cases.**

17

18 **Response IR-1:**

19

20 **(a) Please refer to Synapse IR-1 Attachment 1 ELECTRONIC.**

21

22 **(b) The projected costs were provided to NSPML by NS Power. The basis for NS Power's**  
23 **projected costs was the "Review of the Competitive Procurement Process for Renewable**  
24 **Low-Impact Electricity from IPP's", prepared for the Nova Scotia Department of Energy**  
25 **by Power Advisory LLC, November 6, 2012. Please refer to Synapse IR-1 Attachment 2.**

26

27 **(c) Confirmed.**

|             | <b>Fixed O &amp; M</b>   | <b>Variable O &amp; M</b> | <b>Capital Portion</b>   | <b>Total Revenue Requirement</b> |
|-------------|--------------------------|---------------------------|--------------------------|----------------------------------|
|             | <i>Nominal Cdn (000)</i> | <i>Nominal Cdn (000)</i>  | <i>Nominal Cdn (000)</i> | <i>Nominal Cdn (000)</i>         |
| <b>2012</b> | \$ 13,005                | \$ 1,215                  | \$ 40,028                | <b>\$ 54,248</b>                 |
| <b>2013</b> | \$ 13,265                | \$ 1,239                  | \$ (12,109)              | <b>\$ 2,396</b>                  |
| <b>2014</b> | \$ 13,530                | \$ 1,264                  | \$ 56,568                | <b>\$ 71,362</b>                 |
| <b>2015</b> | \$ 13,801                | \$ 1,290                  | \$ 89,000                | <b>\$ 104,090</b>                |
| <b>2016</b> | \$ 14,077                | \$ 1,315                  | \$ 103,310               | <b>\$ 118,703</b>                |
| <b>2017</b> | \$ 14,359                | \$ 1,342                  | \$ 108,560               | <b>\$ 124,260</b>                |
| <b>2018</b> | \$ 14,646                | \$ 1,368                  | \$ 109,279               | <b>\$ 125,293</b>                |
| <b>2019</b> | \$ 14,939                | \$ 1,396                  | \$ 107,733               | <b>\$ 124,067</b>                |
| <b>2020</b> | \$ 15,237                | \$ 1,424                  | \$ 105,054               | <b>\$ 121,715</b>                |
| <b>2021</b> | \$ 15,542                | \$ 1,452                  | \$ 101,809               | <b>\$ 118,803</b>                |
| <b>2022</b> | \$ 15,853                | \$ 1,481                  | \$ 98,280                | <b>\$ 115,615</b>                |
| <b>2023</b> | \$ 16,170                | \$ 1,511                  | \$ 94,611                | <b>\$ 112,292</b>                |
| <b>2024</b> | \$ 16,493                | \$ 1,541                  | \$ 90,870                | <b>\$ 108,905</b>                |
| <b>2025</b> | \$ 16,823                | \$ 1,572                  | \$ 87,094                | <b>\$ 105,489</b>                |
| <b>2026</b> | \$ 17,160                | \$ 1,603                  | \$ 83,300                | <b>\$ 102,063</b>                |
| <b>2027</b> | \$ 17,503                | \$ 1,635                  | \$ 79,498                | <b>\$ 98,636</b>                 |
| <b>2028</b> | \$ 17,853                | \$ 1,668                  | \$ 75,691                | <b>\$ 95,212</b>                 |
| <b>2029</b> | \$ 18,210                | \$ 1,702                  | \$ 71,881                | <b>\$ 91,793</b>                 |
| <b>2030</b> | \$ 18,574                | \$ 1,736                  | \$ 68,071                | <b>\$ 88,381</b>                 |
| <b>2031</b> | \$ 18,946                | \$ 1,770                  | \$ 64,260                | <b>\$ 84,976</b>                 |



| <b>Revenue Requirement</b>               |                  |                 |                  |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |
|--|------------------|-----------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|
|  | 1                | 2               | 3                | 4                 | 5                 | 6                 | 7                 | 8                 | 9                 | 10                | 11                | 12                | 13                | 14                | 15                | 16               | 17               | 18               | 19               | 20               |
|  | 2012             | 2013            | 2014             | 2015              | 2016              | 2017              | 2018              | 2019              | 2020              | 2021              | 2022              | 2023              | 2024              | 2025              | 2026              | 2027             | 2028             | 2029             | 2030             | 2031             |
| Depreciation                             | \$ 43,025        | \$ 43,025       | \$ 43,025        | \$ 43,025         | \$ 43,025         | \$ 43,025         | \$ 43,025         | \$ 43,025         | \$ 43,025         | \$ 43,025         | \$ 43,025         | \$ 43,025         | \$ 43,025         | \$ 43,025         | \$ 43,025         | \$ 43,025        | \$ 43,025        | \$ 43,025        | \$ 43,025        | \$ 43,025        |
| Interest Cost                            | \$ 31,462        | \$ 29,849       | \$ 28,235        | \$ 26,622         | \$ 25,008         | \$ 23,395         | \$ 21,781         | \$ 20,168         | \$ 18,554         | \$ 16,941         | \$ 15,328         | \$ 13,714         | \$ 12,101         | \$ 10,487         | \$ 8,874          | \$ 7,260         | \$ 5,647         | \$ 4,034         | \$ 2,420         | \$ 807           |
| ROE                                      | \$ 29,574        | \$ 28,058       | \$ 26,541        | \$ 25,024         | \$ 23,508         | \$ 21,991         | \$ 20,474         | \$ 18,958         | \$ 17,441         | \$ 15,925         | \$ 14,408         | \$ 12,891         | \$ 11,375         | \$ 9,858          | \$ 8,341          | \$ 6,825         | \$ 5,308         | \$ 3,792         | \$ 2,275         | \$ 758           |
| Fixed O & M                              | \$ 13,005        | \$ 13,265       | \$ 13,530        | \$ 13,801         | \$ 14,077         | \$ 14,359         | \$ 14,646         | \$ 14,939         | \$ 15,237         | \$ 15,542         | \$ 15,853         | \$ 16,170         | \$ 16,493         | \$ 16,823         | \$ 17,160         | \$ 17,503        | \$ 17,853        | \$ 18,210        | \$ 18,574        | \$ 18,946        |
| Variable O & M                           | \$ 1,215         | \$ 1,239        | \$ 1,264         | \$ 1,290          | \$ 1,315          | \$ 1,342          | \$ 1,368          | \$ 1,396          | \$ 1,424          | \$ 1,452          | \$ 1,481          | \$ 1,511          | \$ 1,541          | \$ 1,572          | \$ 1,603          | \$ 1,635         | \$ 1,668         | \$ 1,702         | \$ 1,736         | \$ 1,770         |
| Fuel Cost                                | \$ 0             | \$ 0            | \$ 0             | \$ 0              | \$ 0              | \$ 0              | \$ 0              | \$ 0              | \$ 0              | \$ 0              | \$ 0              | \$ 0              | \$ 0              | \$ 0              | \$ 0              | \$ 0             | \$ 0             | \$ 0             | \$ 0             | \$ 0             |
| Taxes                                    | \$ (64,033)      | \$ (113,040)    | \$ (41,233)      | \$ (5,671)        | \$ 11,770         | \$ 20,149         | \$ 23,998         | \$ 25,582         | \$ 26,033         | \$ 25,918         | \$ 25,520         | \$ 24,980         | \$ 24,370         | \$ 23,724         | \$ 23,060         | \$ 22,387        | \$ 21,710        | \$ 21,031        | \$ 20,351        | \$ 19,670        |
| <b>Total Revenue Requirement (\$000)</b> | <b>\$ 54,248</b> | <b>\$ 2,396</b> | <b>\$ 71,362</b> | <b>\$ 104,090</b> | <b>\$ 118,703</b> | <b>\$ 124,260</b> | <b>\$ 125,293</b> | <b>\$ 124,067</b> | <b>\$ 121,715</b> | <b>\$ 118,803</b> | <b>\$ 115,615</b> | <b>\$ 112,292</b> | <b>\$ 108,905</b> | <b>\$ 105,489</b> | <b>\$ 102,063</b> | <b>\$ 98,636</b> | <b>\$ 95,212</b> | <b>\$ 91,793</b> | <b>\$ 88,381</b> | <b>\$ 84,976</b> |

|                        |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Energy Delivered (MWh) | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 | 1,191,360 |
| \$/MWh                 | \$ 45.53  | \$ 2.01   | \$ 59.90  | \$ 87.37  | \$ 99.64  | \$ 104.30 | \$ 105.17 | \$ 104.14 | \$ 102.16 | \$ 99.72  | \$ 97.04  | \$ 94.25  | \$ 91.41  | \$ 88.55  | \$ 85.67  | \$ 82.79  | \$ 79.92  | \$ 77.05  | \$ 74.18  | \$ 71.33  |

| <b>Levelized Price of Tariff Components</b> | <b>\$/MWh</b>   |
|---|-----------------|
| Depreciation                                | \$ 36.11        |
| Interest Cost                               | \$ 16.15        |
| ROE   | \$ 15.18        |
| Fixed O & M                                 | \$ 12.76        |
| Variable O & M                              | \$ 1.19         |
| Fuel Cost                                   | \$ 0            |
| Taxes                                       | \$ (1.66)       |
| <b>Total</b>                                | <b>\$ 79.74</b> |

|              |                |
|--------------|----------------|
| Fixed        | \$78.55        |
| Variable     | \$1.19         |
| <b>Total</b> | <b>\$79.74</b> |

| <b>Rate Base</b>    |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |          |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|
|                     | 1         | 2         | 3         | 4         | 5         | 6         | 7         | 8         | 9         | 10        | 11        | 12        | 13        | 14        | 15        | 16        | 17        | 18        | 19       | 20       |
|                     | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      | 2021      | 2022      | 2023      | 2024      | 2025      | 2026      | 2027      | 2028      | 2029      | 2030     | 2031     |
| Opening             | \$860,498 | \$817,473 | \$774,448 | \$731,423 | \$688,398 | \$645,373 | \$602,348 | \$559,323 | \$516,299 | \$473,274 | \$430,249 | \$387,224 | \$344,199 | \$301,174 | \$258,149 | \$215,124 | \$172,100 | \$129,075 | \$86,050 | \$43,025 |
| Additions           | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0     | \$ 0     |
| Annual Depreciation | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025  | \$43,025 | \$43,025 |
| Closing             | \$860,498 | \$817,473 | \$774,448 | \$731,423 | \$688,398 | \$645,373 | \$602,348 | \$559,323 | \$516,299 | \$473,274 | \$430,249 | \$387,224 | \$344,199 | \$301,174 | \$258,149 | \$215,124 | \$172,100 | \$129,075 | \$86,050 | \$43,025 |
| Average Rate Base   | \$838,985 | \$795,960 | \$752,935 | \$709,910 | \$666,886 | \$623,861 | \$580,836 | \$537,811 | \$494,786 | \$451,761 | \$408,736 | \$365,711 | \$322,687 | \$279,662 | \$236,637 | \$193,612 | \$150,587 | \$107,562 | \$64,537 | \$21,512 |

| <b>Taxes</b>                                |                    |                     |                    |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
|---|--------------------|---------------------|--------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|   | 1                  | 2                   | 3                  | 4                 | 5                | 6                | 7                | 8                | 9                | 10               | 11               | 12               | 13               | 14               | 15               | 16               | 17               | 18               | 19               | 20               |
|   | 2012               | 2013                | 2014               | 2015              | 2016             | 2017             | 2018             | 2019             | 2020             | 2021             | 2022             | 2023             | 2024             | 2025             | 2026             | 2027             | 2028             | 2029             | 2030             | 2031             |
| Revenue Requirement                         | \$ 54,248          | \$ 2,396            | \$ 71,362          | \$ 104,090        | \$ 118,703       | \$ 124,260       | \$ 125,293       | \$ 124,067       | \$ 121,715       | \$ 118,803       | \$ 115,615       | \$ 112,292       | \$ 108,905       | \$ 105,489       | \$ 102,063       | \$ 98,636        | \$ 95,212        | \$ 91,793        | \$ 88,381        | \$ 84,976        |
| Less: Interest + OpEx + Fuel                | \$ 45,682          | \$ 44,353           | \$ 43,030          | \$ 41,712         | \$ 40,401        | \$ 39,095        | \$ 37,796        | \$ 36,502        | \$ 35,216        | \$ 33,935        | \$ 32,662        | \$ 31,395        | \$ 30,135        | \$ 28,883        | \$ 27,637        | \$ 26,399        | \$ 25,168        | \$ 23,945        | \$ 22,730        | \$ 21,523        |
| Less: Tax Depreciation                      | \$215,124          | \$322,687           | \$161,343          | \$80,672          | \$40,336         | \$20,168         | \$10,084         | \$5,042          | \$2,521          | \$1,260          | \$630            | \$315            | \$158            | \$79             | \$39             | \$20             | \$10             | \$5              | \$2              | \$1              |
| Taxable Income before application of losses | \$ (206,558)       | \$ (364,644)        | \$ (133,011)       | \$ (18,293)       | \$ 37,966        | \$ 64,997        | \$ 77,414        | \$ 82,523        | \$ 83,978        | \$ 83,607        | \$ 82,323        | \$ 80,581        | \$ 78,612        | \$ 76,528        | \$ 74,387        | \$ 72,217        | \$ 70,034        | \$ 67,843        | \$ 65,648        | \$ 63,452        |
| Tax Rate                                    | 31%                | 31%                 | 31%                | 31%               | 31%              | 31%              | 31%              | 31%              | 31%              | 31%              | 31%              | 31%              | 31%              | 31%              | 31%              | 31%              | 31%              | 31%              | 31%              | 31%              |
| <b>Taxes Payable - Corporatized</b>         | <b>\$ (64,033)</b> | <b>\$ (113,040)</b> | <b>\$ (41,233)</b> | <b>\$ (5,671)</b> | <b>\$ 11,770</b> | <b>\$ 20,149</b> | <b>\$ 23,998</b> | <b>\$ 25,582</b> | <b>\$ 26,033</b> | <b>\$ 25,918</b> | <b>\$ 25,520</b> | <b>\$ 24,980</b> | <b>\$ 24,370</b> | <b>\$ 23,724</b> | <b>\$ 23,060</b> | <b>\$ 22,387</b> | <b>\$ 21,710</b> | <b>\$ 21,031</b> | <b>\$ 20,351</b> | <b>\$ 19,670</b> |
| Losses Applied                              | \$ 0               | \$ 0                | \$ 0               | \$ 0              | \$ 0             | \$ 0             | \$ 0             | \$ 0             | \$ 0             | \$ 0             | \$ 0             | \$ 0             | \$ 0             | \$ 0             | \$ 0             | \$ 0             | \$ 0             | \$ 0             | \$ 0             | \$ 0             |
| Taxable Income                              | \$ (206,558)       | \$ (364,644)        | \$ (133,011)       | \$ (18,293)       | \$ 37,966        | \$ 64,997        | \$ 77,414        | \$ 82,523        | \$ 83,978        | \$ 83,607        | \$ 82,323        | \$ 80,581        | \$ 78,612        | \$ 76,528        | \$ 74,387        | \$ 72,217        | \$ 70,034        | \$ 67,843        | \$ 65,648        | \$ 63,452        |
| <b>Taxes Payable - Trapped</b>              | <b>\$ 0</b>        | <b>\$ 0</b>         | <b>\$ 0</b>        | <b>\$ 0</b>       | <b>\$ 11,770</b> | <b>\$ 20,149</b> | <b>\$ 23,998</b> | <b>\$ 25,582</b> | <b>\$ 26,033</b> | <b>\$ 25,918</b> | <b>\$ 25,520</b> | <b>\$ 24,980</b> | <b>\$ 24,370</b> | <b>\$ 23,724</b> | <b>\$ 23,060</b> | <b>\$ 22,387</b> | <b>\$ 21,710</b> | <b>\$ 21,031</b> | <b>\$ 20,351</b> | <b>\$ 19,670</b> |
| <b>Taxes Payable- Applied</b>               | <b>\$ (64,033)</b> | <b>\$ (113,040)</b> | <b>\$ (41,233)</b> | <b>\$ (5,671)</b> | <b>\$ 11,770</b> | <b>\$ 20,149</b> | <b>\$ 23,998</b> | <b>\$ 25,582</b> | <b>\$ 26,033</b> | <b>\$ 25,918</b> | <b>\$ 25,520</b> | <b>\$ 24,980</b> | <b>\$ 24,370</b> | <b>\$ 23,724</b> | <b>\$ 23,060</b> | <b>\$ 22,387</b> | <b>\$ 21,710</b> | <b>\$ 21,031</b> | <b>\$ 20,351</b> | <b>\$ 19,670</b> |

| <b>Losses Available for Carryforward</b> |           |           |           |           |           |           |           |           |           |           |           |           |           |          |      |      |      |      |      |      |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|------|------|------|------|------|------|
|  | 1         | 2         | 3         | 4         | 5         | 6         | 7         | 8         | 9         | 10        | 11        | 12        | 13        | 14       | 15   | 16   | 17   | 18   | 19   | 20   |
|  | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      | 2021      | 2022      | 2023      | 2024      | 2025     | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| Opening                                  | \$ 0      | \$206,558 | \$571,202 | \$704,213 | \$722,506 | \$684,540 | \$619,543 | \$542,129 | \$459,606 | \$375,628 | \$292,021 | \$209,698 | \$129,117 | \$50,505 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Current Losses                           | \$206,558 | \$364,644 | \$133,011 | \$18,293  | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 0     | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Less: Application of Losses              | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$37,966  | \$64,997  | \$77,414  | \$82,523  | \$83,978  | \$83,607  | \$82,323  | \$80,581  | \$78,612  | \$50,505 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Ending                                   | \$0       | \$206,558 | \$571,202 | \$704,213 | \$722,506 | \$684,540 | \$619,543 | \$542,129 | \$459,606 | \$375,628 | \$292,021 | \$209,698 | \$129,117 | \$50,505 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |

**CCA Balances**

|           |           |           |           |           |           |          |          |          |          |         |         |         |       |       |       |      |      |      |      |     |     |
|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|---------|---------|---------|-------|-------|-------|------|------|------|------|-----|-----|
| Opening   | \$0       | \$430,249 | \$645,373 | \$322,687 | \$161,343 | \$80,672 | \$40,336 | \$20,168 | \$10,084 | \$5,042 | \$2,521 | \$1,260 | \$630 | \$315 | \$158 | \$79 | \$39 | \$20 | \$10 | \$5 | \$2 |
| Additions | \$430,249 | \$430,249 | \$0       | \$0       | \$0       | \$0      | \$0      | \$0      | \$0      | \$0     | \$0     | \$0     | \$0   | \$0   | \$0   | \$0  | \$0  | \$0  | \$0  | \$0 | \$0 |
| Claimed   |           | \$215,124 | \$322,687 | \$161,343 | \$80,672  | \$40,336 | \$20,168 | \$10,084 | \$5,042  | \$2,521 | \$1,260 | \$630   | \$315 | \$158 | \$79  | \$39 | \$20 | \$10 | \$5  | \$2 | \$1 |
| Ending    | \$430,249 | \$645,373 | \$322,687 | \$161,343 | \$80,672  | \$40,336 | \$20,168 | \$10,084 | \$5,042  | \$2,521 | \$1,260 | \$630   | \$315 | \$158 | \$79  | \$39 | \$20 | \$10 | \$5  | \$2 | \$1 |

**Depreciation**

|                                       | 1               | 2               | 3               | 4               | 5               | 6               | 7               | 8               | 9               | 10              | 11              | 12              | 13              | 14              | 15              | 16              | 17              | 18              | 19              | 20              |
|---------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                       | 2012            | 2013            | 2014            | 2015            | 2016            | 2017            | 2018            | 2019            | 2020            | 2021            | 2022            | 2023            | 2024            | 2025            | 2026            | 2027            | 2028            | 2029            | 2030            | 2031            |
| <b>Capital Add #1</b>                 | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       | \$860,498       |
| Depreciation Period (Yrs.)            | 20              | 20              | 20              | 20              | 20              | 20              | 20              | 20              | 20              | 20              | 20              | 20              | 20              | 20              | 20              | 20              | 20              | 20              | 20              | 20              |
| Annual Depreciation                   | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        | \$43,025        |
| <b>Capital Add #2</b>                 | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             |
| Depreciation Period (Yrs.)            | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               |
| Annual Depreciation                   | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             |
| <b>Maintenance/Sustaining Capital</b> | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             |
| Depreciation Period (Yrs.)            | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               |
| Annual Depreciation                   | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             | \$0             |
| <b>Total Annual Depreciation</b>      | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> | <b>\$43,025</b> |

- To set the price:**
- Set CF to 32.0%
- Set COD to 2012
- Set ROE to 9.4%
- Set Interest to 6.0%
- Calculate what \$/kw = \$80 levelized price**
- Set Capacity factor to 30.0%
- Set ROE to 10.0%
- Set Interest to 5.0%
- Set COD to 2019
  
- For 2039 Model**
- Set COD to 2039
- Take 80% of capital cost

**Contains Commercially Sensitive Information**

# **Review of the Competitive Procurement Process for Renewable Low-Impact Electricity from IPPs**

Prepared for:

**Nova Scotia Department of Energy**

November 6, 2012

Prepared by:



Serving as:

**Renewable Electricity Administrator**

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## Table of Contents

|     |  |   |
|-----|--|---|
| 1   | Introduction and Purpose.....  | 1 |
| 1.1 | Review of Contents of Report.....                                    | 1 |
| 2   | Overview of Direction Provided to REA in the Terms of Reference..... | 2 |
| 3   | Ensuring Fairness and Transparency and Promoting Competition .....   | 3 |
| 3.1 | The RFP.....   | 4 |
| 4   | Review of RFP Results.....   | 5 |
| 5   | Conclusions .....  | 7 |

## 1 Introduction and Purpose

The 2010 amendments to the *Electricity Act* (Nova Scotia) provided for the appointment of a Renewable Electricity Administrator (REA) to oversee a competitive bidding process to procure a minimum of 300 GWh from Independent Power Producers (IPPs). In July 2011, the government appointed Power Advisory LLC (Power Advisory) to serve as the REA after a competitive application process. The government developed a terms of reference (TOR) to make clear the roles and responsibilities of the REA. Under the TOR, the REA is to “submit a written final report following the completion of each RFP process to the Nova Scotia Department of Energy that provides commentary on the fairness, transparency and competitiveness of the RFP, and comparative economic analysis supporting the selection and recommendation of the successful bids” (p. 5) This is that report for the 2012 RFP for a minimum of 300 GWh.

Throughout the RFP process, the REA solicited and received comments and input from stakeholders. The Nova Scotia Consumer Advocate questioned the need for 300 GWh of renewable energy from IPPs to achieve the Province’s 2015 legislated requirement of 25% renewable electricity generation noting recent reductions in industrial load and renewable energy development under the COMFIT. Power Advisory sought direction from the Government on this issue and was informed that this was an element of government policy and not subject to review as part of the RFP process. Power Advisory notes that the Government was mindful of the potential rate impacts from this procurement and sought assurances that any adverse rate impacts would be limited and short-lived.

### 1.1 Review of Contents of Report

This first chapter is the introduction which reviews the purpose and scope of this report. The second chapter reviews the direction provided to the REA in the TOR. The third chapter reviews the efforts taken to ensure fairness and transparency and to promote the competitiveness of the process. Chapter 4 reviews the results of the RFP including the number of Proposals submitted and the Proposals that were awarded Power Purchase Agreements (PPAs). Chapter 5 offers conclusions on the fairness and transparency of the process and the competitiveness of the results realized.



## 2 Overview of Direction Provided to REA in the Terms of Reference

The TOR provided that to “promote fairness, transparency, and efficiency, IPP projects will be secured through a competitive process under the management of an independent entity.” (p.1) The REA was directed to “develop an appropriate Request for Proposals which fits the needs of the Province and the requirements of the public utility.” (p. 2) Further, the REA was directed “to conduct the RFP process in a fair and transparent manner.” In addition, the TOR specified that “the objective of the competitive bid process is to identify the project which represents the best value for electricity ratepayers.” (p. 6) As discussed further below, Power Advisory used this objective to guide the development of the RFP and the PPA.

The TOR stipulated that the “Request for Proposals will be developed in the context of the standard Power Purchase Agreement developed by NSPI.” (p. 2). The TOR also directed the REA to “work with NSPI, stakeholders and the Board to develop a standard form Power Purchase Agreement.” (p. 3).

### 3 Ensuring Fairness and Transparency and Promoting Competition

Power Advisory sought to ensure that the competitive process was fair and transparent by developing an RFP that outlined clearly the criteria that would be employed when scoring proposals and providing ample opportunity for Proponents to comment on the RFP and PPA and ask questions regarding the overall process. Outlining the criteria that will be employed to score Proposals allows Proponents to assess how they can most efficiently take the actions necessary to mature their Project so as to secure a higher score. With the Evaluation Criteria intended to assess Project's risks, they provided an additional incentive for Proponent's to mitigate their Projects' risks which would lead to a lower price bid. We have worked to ensure that the PPA provides best value for electricity ratepayers by seeking an efficient allocation of risk between the sellers (IPPs) and the buyer (NSPI) and working to ensure that the process was highly competitive.<sup>1</sup>

The RFP development involved the release of five drafts of the RFP. Stakeholder consultation was a major part of the RFP process, with the greatest participation by Independent Power Producers who were the only eligible participants.<sup>2</sup> As part of the RFP drafting process, we hosted two general meetings with stakeholders along with individual information sessions with potential Proponents that submitted a Notice of Intent to Bid. To help ensure transparency, we also published answers to questions posed by Proponents for all stakeholders to review. In addition, we had numerous meetings and discussions with stakeholders including Nova Scotia Power Inc. (NSPI), have accepted comments and questions on the standard form PPA and circulated five drafts of the PPA. The PPA was reviewed by and ultimately approved by the Utility and Review Board (UARB) who found that "the PPA seems well thought out and thorough in its various provisions. It appears to balance the interests of IPP's, NSPI and ratepayers."<sup>3</sup>

Stakeholders were able to intervene in the UARB process. Several IPPs, the Consumer Advocate and NSPI did. Several of the parties that intervened and commented on the PPA did so in the context of expressing support for the process and the outcomes realized. Shear Wind Inc. noted "the thoughtful and professional approach taken both by the Department of Energy ("DOE") and the REA to the development of the draft PPA, and sees this as a much improved process over prior Requests for Proposals for renewable energy in the Province." (Shear Wind Written Submission, p. 1) RES Canada commented that "[t]he proposed contract properly allocates the risks of the contemplated projects to the parties that can best manage them, providing for the best outcome to the customer." (RES Canada, Comments on PPA, p. 1)

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<sup>1</sup> See February 24, 2012 Cover letter from Power Advisory LLC to Nancy McNeil re: Proposed Standard Form Power Purchase Agreement E-REA-R-12/ Matter No. M04838

<sup>2</sup> Per the *Renewable Electricity Regulations* (N.S. Reg. 155/2010) up to 49% of IPPs can be owned by NSPI.

<sup>3</sup> NSUARB-E-REA-R-12, p. 10.

### 3.1 The RFP

Recognizing that there was a mature IPP development community in Nova Scotia, the RFP employed stringent mandatory requirements to ensure that Proponents that would be eligible to be awarded a PPA were well qualified.<sup>4</sup> This allowed the RFP process to reduce the emphasis that was put on Project and Proponent related qualifications in the scoring of proposals.<sup>5</sup> Those Proposals that passed the Mandatory Requirements were scored on the basis of six non-price criteria to measure their maturity and assess the risk of being able to deliver on their contractual commitments. These non-price evaluation criteria were: (1) Network Upgrade Costs (40%) which considered the potential cost of network upgrades that could be triggered by the Project; (2) Project Team Experience (15%) which considered the project team's relevant experience developing similar generation projects; (3) Financial Capability (15%) which considered the degree to which the Proponent has secured firm financial commitments from investors and lenders; (4) certainty of Renewable Resource Assessment (10%) which considered the reliability of the renewable resource assessment; (5) Status of Environmental Assessment (10%) which considered where the Proponent was in the process of securing an environmental assessment; and (6) Community Acceptance Efforts (10%) which considered ongoing and planned efforts to secure community acceptance for the Project.

All Proposals achieving a minimum score of 60 points were then subjected to a price evaluation using the delivered price which reflects the contract price to be paid (i.e., Energy Rate) and a locational loss factor determined by the Nova Scotia Power System Operator specifically for this RFP.<sup>6</sup> This delivered price was adjusted based on the Proposal Score such that maximum adjustment would be 20% for a Proposal with a perfect score of 100. A local content plan was to be used as a tie breaker in the event that two projects received the same Evaluated Price.

Recognizing that there is the potential for attrition in the development of Projects and for changes that cause Proponents to reduce their contractual output as allowed under the PPA, the RFP indicated that the procurement target would be from 339 GWh to 407 GWh. The 339 GWh reflects a 13% attrition rate to achieve 300 GWh, consistent with the experience in other RFPs, and the 407 GWh was 20% higher than this given that projects typically have to be of a certain size to realize economies of scale.<sup>7</sup> By comparison NSPI employed a procurement "margin of safety" of 34% in its 2007 RFP, i.e., it procured 34% more than it originally sought.

<sup>4</sup> Mandatory Requirements are requirements that all Proponents must meet to be considered further.

<sup>5</sup> Specifically, by employing more stringent Mandatory Requirements and requiring a higher level of minimum performance with respect to Project characteristics and Proponent experience less weight needs to be employed for evaluation criteria that contrast the relevant experience of Proponents and the development status of the Project.

<sup>6</sup> A minimum score of 80 was required for projects that were larger than 50 MW. A higher minimum score was required for such projects given the greater risk to customers of having such a large portion of the procurement target represented by one project.

<sup>7</sup> The Ontario Power Authority's Renewable Energy Supply III RFP experienced a 13% attrition rate and employed similar Mandatory Requirements and Evaluation Criteria.

## 4 Review of RFP Results

Nineteen proposals from twelve different Proponents were received in response to the RFP, offering about eight times the procurement target of a minimum of 300 GWh.<sup>8</sup> This high level of response is a good indication regarding the competitiveness of the RFP process. One Proposal failed to provide the full amount of required Proposal Security (\$25/kW of Project Name Plate Capacity up to \$1 million) and therefore was disqualified and the Proponent notified.

The project evaluation team then reviewed each of the remaining eighteen Proposals to confirm that they satisfied each of the RFP Mandatory Requirements. Where there was uncertainty regarding whether a proposal satisfied the Mandatory Requirements and the RFP didn't specifically identify the information required, clarification requests were issued to the Proponent. All eighteen Proposals were found to satisfy the Mandatory Requirements.

All eighteen Proposals were then scored by the each member of the evaluation team. To the degree that additional information was needed by team members to properly score Proposals a clarification request was issued.<sup>9</sup> Evaluation team members had a face-to-face meeting to review their scoring of each Proposal and to discuss the considerations that each member applied when scoring Proposals. A consensus was ultimately reached on how Proposals were to be scored.

Integrating the non-price scores using the discount factor along with the delivered prices produced the Evaluated Price. With Proposals ranked from lowest to highest Evaluated Price, the Award Group became apparent. Using the criteria for the selection of the Award Group as outlined in the RFP, three Proposals were selected: (1) South Canoe (Minas) Wind Project (24 MW offering 70 GWh); (2) South Canoe (Oxford) Wind Project (78 MW offering 241 GWh),<sup>10</sup> and (3) Sable Wind proposed by the Municipality of the District of Guysborough (13.8 MW offering 44.4 GWh).

The Proposal with the highest Evaluated Price of the three, Sable Wind, had an Evaluated Price which was 4.4% lower than the Proposal with the next highest Evaluated Price which wasn't included in the Award Group. Sable Wind's Delivered Price was 11% lower than this other Proposal's price, indicating that Sable Wind's non-price score was considerably lower than this other competing Proposal's. With the price evaluation being totally objective an 11% lower Delivered Price requires that the competing Proposal achieve a non-price score that is 22 points higher, which represents a significant difference.

Figure 1 compares the Evaluated Price for each of the eighteen proposals that were evaluated. The competitiveness of the process is demonstrated by the close grouping of Evaluated Prices for Proposals. For example, there are four proposals that have an Evaluated Price that is within 5%

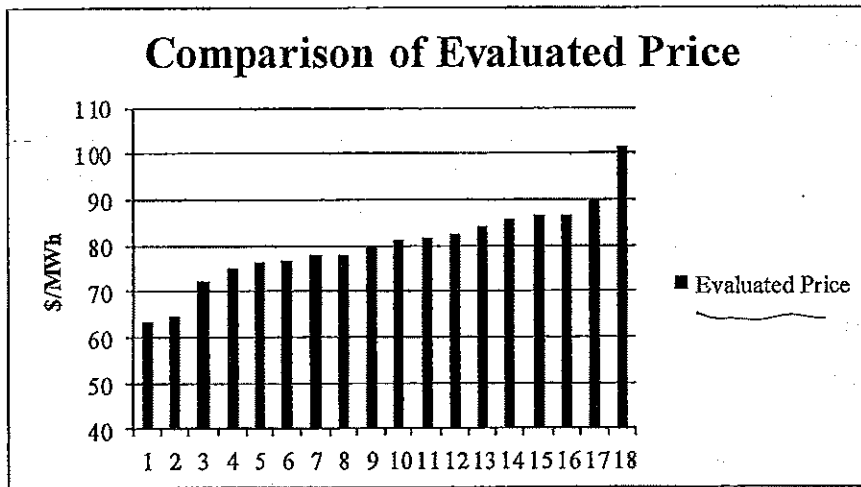
<sup>8</sup> One Proponent submitted two separate Proposals with different partners.

<sup>9</sup> The evaluation team was careful to ensure that Proponents weren't provided with an opportunity to "repair" (address a major deficiency) or "enhance" (e.g., update) their proposal.

<sup>10</sup> On its Proposal Price Form, the South Canoe (Oxford) Wind Project Proposal indicated that if a PPA were also offered to the South Canoe (Minas) Wind Project that economies of scale would be realized that would allow the Project to offer a price that was over \$2/MWh lower. This reduction in the Energy Rate was not considered in the evaluation process, but the PPA that was offered to the Proponent took credit for these savings.

of the Proposal with the lowest Evaluated Price that wasn't offered a PPA. This suggests that there was significant competition among Proposals, but that the Proposals included in the Award Group clearly offered greater value.

As indicated, the Minister of Energy requested that the REA consider "the rate impacts on Nova Scotia customers and seek to balance these rate impacts with the objectives of the RES."<sup>11</sup> Pursuant to this request we estimated the rate impacts from the three PPAs and calculated that these to be about \$0.9/MWh in 2015 and \$0.8/MWh in 2019, with a reduction in rates from these PPAs realized in 2020 and the remaining fourteen years of the PPA.<sup>12</sup> Furthermore, this analysis indicated that including the third PPA which increased the amount of energy procured from 311 GWh to 355 GWh would actually result in lower overall rates on a net present value basis over the 20-year term of the PPA.<sup>13</sup>



<sup>11</sup> June 27, 2012 Letter from Charlie Parker, Minister of Energy, to John Dalton, Renewable Electricity Administrator.

<sup>12</sup> Power Advisory estimated these rate impacts by first estimating the power supply costs that these projects would avoid and then comparing these avoided costs with the Energy Rate for the three Projects awarded PPAs.

<sup>13</sup> This third PPA actually offers a lower Energy Rate than the two other Proposals that were offered a PPA. This Project had a higher Evaluated Price given that its non-price score was higher and as a consequence its Evaluated Price was higher.

## 5 Conclusions

Power Advisory believes that the RFP process was fair and transparent to all Proponents and was highly competitive, ensuring that it delivered best value for electricity ratepayers. Power Advisory notes that some Proponents may question the fairness of the process given that NSPI had a minority interest in each of the successful Projects.<sup>14</sup> However, this was allowed by the Renewable Electricity Regulations and was an element of the RFP process that was understood by all Proponents. Nonetheless, we believe that to the degree there are likely to be future RFP processes for renewable energy from IPPs the form of NSPI's participation should be considered to ensure the competitiveness of these processes. In particular, we are concerned that subsequent processes will be less competitive if NSPI is allowed to participate in the same manner given that IPPs with no NSPI participation may elect to not participate in the RFP process given that they believe that they cannot overcome the competitive advantages offered by NSPI.<sup>15</sup>

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<sup>14</sup> This issue was by Proponents in our debriefings.

<sup>15</sup> In our debriefing with Proponents NSPI's participation in the process was a major issue of concern for many of the Proponents. We understand that these Proponents have met with the Department of Energy to express their concerns so they are not repeated here.

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1 **Request IR-2:**

2  
3 **Reference: Figure 6-3 of Application, Section 6.3 Alternatives Analysis, Wind Capacity**  
4 **Factor and curtailment**

5  
6 **(a) Please provide all underlying calculations and the spreadsheet used (with Excel**  
7 **formulas intact) for computing the assumed curtailment referenced in Figure 6-3.**  
8 **Include the specific hourly minimum steam generation requirement, and hourly**  
9 **available wind, and the hourly curtailment of wind. Provide the specific hourly**  
10 **forecast system load net of wind production. Include these computations for all**  
11 **years of the analysis.**

12  
13 **(b) Confirm that the book life for the indigenous wind is 20 years.**

14  
15 **(c) Explain exactly what is meant by the use of 80% as a redevelopment cost and**  
16 **indicate how this is treated in the overall NPV analysis for any of the three cases. In**  
17 **particular, does this assume that at year 21, wind resources are assumed to be**  
18 **redeveloped at a cost equal to 80% of the levelized cost of wind (\$2012)?**

19  
20 **Response IR-2:**

21  
22 **(a) Please refer to Synapse IR-2 Attachment 1 and Attachment 2, filed electronically.**

23  
24 **(b) Confirmed.**

25  
26 **(c) At year 21, wind resources are assumed to be redeveloped at a cost equal to 80 percent of**  
27 **the 2012 cost escalated to the year of redevelopment. The resultant cost of that**  
28 **redevelopment would be discounted to the appropriate NPV and added to the cumulative**  
29 **cost total.**

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 1     | 1   | 1      | 1116.8 | 0.33078    | 107.5         | 178.6         | 261.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 2      | 1043   | 0.244123   | 79.3          | 131.8         | 192.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 3      | 1011.4 | 0.423852   | 137.8         | 228.9         | 334.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 4      | 997.9  | 0.643737   | 209.2         | 347.6         | 508.6         |                    | -                          | -                          | 0.65                       |
| 2020 | 1     | 1   | 5      | 1030.7 | 0.662867   | 215.4         | 357.9         | 523.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 6      | 1100.2 | 0.678273   | 220.4         | 366.3         | 535.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 7      | 1223.9 | 0.750687   | 244.0         | 405.4         | 593.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 8      | 1325.6 | 0.856533   | 278.4         | 462.5         | 676.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 9      | 1408.4 | 0.783016   | 254.5         | 422.8         | 618.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 10     | 1427.1 | 0.677455   | 220.2         | 365.8         | 535.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 11     | 1411.9 | 0.73668    | 239.4         | 397.8         | 582.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 12     | 1377.8 | 0.700461   | 227.6         | 378.2         | 553.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 13     | 1401.8 | 0.64498    | 209.6         | 348.3         | 509.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 14     | 1386.5 | 0.500587   | 162.7         | 270.3         | 395.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 15     | 1388.3 | 0.326926   | 106.3         | 176.5         | 258.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 16     | 1392.4 | 0.227344   | 73.9          | 122.8         | 179.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 17     | 1484.8 | 0.198969   | 64.7          | 107.4         | 157.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 18     | 1564.8 | 0.176726   | 57.4          | 95.4          | 139.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 19     | 1514.2 | 0.196368   | 63.8          | 106.0         | 155.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 20     | 1502.9 | 0.207986   | 67.6          | 112.3         | 164.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 21     | 1452.1 | 0.131629   | 42.8          | 71.1          | 104.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 22     | 1386   | 0.148969   | 48.4          | 80.4          | 117.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 23     | 1281.8 | 0.135585   | 44.1          | 73.2          | 107.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 1   | 24     | 1195.4 | 0.155029   | 50.4          | 83.7          | 122.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 1      | 1115.4 | 0.181431   | 59.0          | 98.0          | 143.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 2      | 1047.1 | 0.239829   | 77.9          | 129.5         | 189.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 3      | 1017.4 | 0.343561   | 111.7         | 185.5         | 271.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 4      | 1039.9 | 0.349394   | 113.6         | 188.7         | 276.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 5      | 1034.4 | 0.374165   | 121.6         | 202.0         | 295.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 6      | 1103.8 | 0.433687   | 140.9         | 234.2         | 342.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 7      | 1246.6 | 0.506563   | 164.6         | 273.5         | 400.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 8      | 1401.3 | 0.693438   | 225.4         | 374.5         | 547.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 9      | 1461.2 | 0.765938   | 248.9         | 413.6         | 605.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 10     | 1453.3 | 0.794143   | 258.1         | 428.8         | 627.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 11     | 1461.7 | 0.855358   | 278.0         | 461.9         | 675.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 12     | 1423.4 | 0.842702   | 273.9         | 455.1         | 665.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 13     | 1414.5 | 0.671453   | 218.2         | 362.6         | 530.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 14     | 1433.4 | 0.898721   | 292.1         | 485.3         | 710.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 15     | 1413.7 | 0.905087   | 294.2         | 488.7         | 715.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 16     | 1470.2 | 0.883      | 287.0         | 476.8         | 697.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 17     | 1515.1 | 0.900462   | 292.6         | 486.2         | 711.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 18     | 1567.1 | 0.830128   | 269.8         | 448.3         | 655.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 19     | 1527.6 | 0.785854   | 255.4         | 424.4         | 620.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 20     | 1503.7 | 0.808998   | 262.9         | 436.9         | 639.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 2   | 21     | 1449.7 | 0.711927   | 231.4         | 384.4         | 562.4         |                    | -                          | -                          | -                          |



| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 1     | 2   | 22     | 1392.6 | 0.685899      | 222.9            | 370.4            | 541.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 2   | 23     | 1302   | 0.624959      | 203.1            | 337.5            | 493.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 2   | 24     | 1233.8 | 0.542228      | 176.2            | 292.8            | 428.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 1      | 1334.2 | 0.458415      | 149.0            | 247.5            | 362.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 2      | 1295.1 | 0.409867      | 133.2            | 221.3            | 323.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 3      | 1211.1 | 0.313854      | 102.0            | 169.5            | 247.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 4      | 1198.9 | 0.269735      | 87.7             | 145.7            | 213.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 5      | 1182.3 | 0.233516      | 75.9             | 126.1            | 184.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 6      | 1209.4 | 0.230072      | 74.8             | 124.2            | 181.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 7      | 1279.9 | 0.185788      | 60.4             | 100.3            | 146.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 8      | 1293.5 | 0.203901      | 66.3             | 110.1            | 161.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 9      | 1379.9 | 0.152971      | 49.7             | 82.6             | 120.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 10     | 1432.7 | 0.150402      | 48.9             | 81.2             | 118.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 11     | 1433.5 | 0.089206      | 29.0             | 48.2             | 70.5             |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 12     | 1450.9 | 0.082734      | 26.9             | 44.7             | 65.4             |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 13     | 1460.6 | 0.040848      | 13.3             | 22.1             | 32.3             |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 14     | 1482.3 | 0.079332      | 25.8             | 42.8             | 62.7             |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 15     | 1460.1 | 0.170297      | 55.3             | 92.0             | 134.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 16     | 1413.9 | 0.219645      | 71.4             | 118.6            | 173.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 17     | 1478   | 0.114915      | 37.3             | 62.1             | 90.8             |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 18     | 1530.9 | 0.137038      | 44.5             | 74.0             | 108.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 19     | 1564.8 | 0.200706      | 65.2             | 108.4            | 158.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 20     | 1514.5 | 0.165424      | 53.8             | 89.3             | 130.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 21     | 1424.6 | 0.236982      | 77.0             | 128.0            | 187.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 22     | 1380.8 | 0.318565      | 103.5            | 172.0            | 251.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 23     | 1346.7 | 0.487976      | 158.6            | 263.5            | 385.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 3   | 24     | 1227.2 | 0.466726      | 151.7            | 252.0            | 368.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 1      | 1121.8 | 0.462941      | 150.5            | 250.0            | 365.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 2      | 1073.1 | 0.527116      | 171.3            | 284.6            | 416.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 3      | 1044.8 | 0.558989      | 181.7            | 301.9            | 441.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 4      | 1062.3 | 0.663973      | 215.8            | 358.5            | 524.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 5      | 1075.6 | 0.66208       | 215.2            | 357.5            | 523.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 6      | 1106.5 | 0.681605      | 221.5            | 368.1            | 538.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 7      | 1168.6 | 0.749809      | 243.7            | 404.9            | 592.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 8      | 1226.5 | 0.720003      | 234.0            | 388.8            | 568.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 9      | 1327.7 | 0.567727      | 184.5            | 306.6            | 448.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 10     | 1393.9 | 0.663738      | 215.7            | 358.4            | 524.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 11     | 1406.3 | 0.710165      | 230.8            | 383.5            | 561.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 12     | 1459.9 | 0.633012      | 205.7            | 341.8            | 500.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 13     | 1476.7 | 0.749955      | 243.7            | 405.0            | 592.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 14     | 1426.1 | 0.757491      | 246.2            | 409.0            | 598.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 15     | 1460.1 | 0.76953       | 250.1            | 415.5            | 607.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 16     | 1455.4 | 0.661487      | 215.0            | 357.2            | 522.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 17     | 1509.8 | 0.649359      | 211.0            | 350.7            | 513.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 4   | 18     | 1572   | 0.580758      | 188.7            | 313.6            | 458.8            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 1     | 4   | 19     | 1488.1 | 0.571403   | 185.7         | 308.6         | 451.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 4   | 20     | 1458.4 | 0.573747   | 186.5         | 309.8         | 453.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 4   | 21     | 1363.3 | 0.403586   | 131.2         | 217.9         | 318.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 4   | 22     | 1258.1 | 0.386201   | 125.5         | 208.5         | 305.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 4   | 23     | 1266.9 | 0.373642   | 121.4         | 201.8         | 295.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 4   | 24     | 1173.8 | 0.345374   | 112.2         | 186.5         | 272.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 1      | 1080.8 | 0.280129   | 91.0          | 151.3         | 221.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 2      | 990.9  | 0.389342   | 126.5         | 210.2         | 307.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 3      | 959.4  | 0.400199   | 130.1         | 216.1         | 316.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 4      | 959.5  | 0.374684   | 121.8         | 202.3         | 296.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 5      | 984.3  | 0.331442   | 107.7         | 179.0         | 261.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 6      | 1009.7 | 0.344612   | 112.0         | 186.1         | 272.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 7      | 1044.7 | 0.292356   | 95.0          | 157.9         | 231.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 8      | 1094.5 | 0.317679   | 103.2         | 171.5         | 251.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 9      | 1195.7 | 0.310576   | 100.9         | 167.7         | 245.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 10     | 1259.1 | 0.307769   | 100.0         | 166.2         | 243.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 11     | 1303.6 | 0.409664   | 133.1         | 221.2         | 323.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 12     | 1333.8 | 0.364306   | 118.4         | 196.7         | 287.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 13     | 1324.6 | 0.271721   | 88.3          | 146.7         | 214.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 14     | 1275.5 | 0.338601   | 110.0         | 182.8         | 267.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 15     | 1228.1 | 0.346524   | 112.6         | 187.1         | 273.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 16     | 1337   | 0.357901   | 116.3         | 193.3         | 282.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 17     | 1375.6 | 0.29301    | 95.2          | 158.2         | 231.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 18     | 1435.3 | 0.289408   | 94.1          | 156.3         | 228.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 19     | 1379.6 | 0.257162   | 83.6          | 138.9         | 203.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 20     | 1335.6 | 0.218862   | 71.1          | 118.2         | 172.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 21     | 1334.9 | 0.269835   | 87.7          | 145.7         | 213.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 22     | 1342.9 | 0.288499   | 93.8          | 155.8         | 227.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 23     | 1261.8 | 0.332071   | 107.9         | 179.3         | 262.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 5   | 24     | 1148.1 | 0.356972   | 116.0         | 192.8         | 282.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 6   | 1      | 1039.5 | 0.446239   | 145.0         | 241.0         | 352.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 6   | 2      | 972.4  | 0.504793   | 164.1         | 272.6         | 398.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 6   | 3      | 957.5  | 0.536693   | 174.4         | 289.8         | 424.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 6   | 4      | 983.7  | 0.639343   | 207.8         | 345.2         | 505.1         |                    | -                          | -                          | 11.38                      |
| 2020 | 1     | 6   | 5      | 997.3  | 0.585593   | 190.3         | 316.2         | 462.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 6   | 6      | 1081.9 | 0.571698   | 185.8         | 308.7         | 451.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 6   | 7      | 1177   | 0.556559   | 180.9         | 300.5         | 439.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 6   | 8      | 1316.5 | 0.560565   | 182.2         | 302.7         | 442.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 6   | 9      | 1451.8 | 0.520994   | 169.3         | 281.3         | 411.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 6   | 10     | 1462.4 | 0.426318   | 138.6         | 230.2         | 336.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 6   | 11     | 1486.4 | 0.282881   | 91.9          | 152.8         | 223.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 6   | 12     | 1401.3 | 0.20038    | 65.1          | 108.2         | 158.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 6   | 13     | 1417.7 | 0.181452   | 59.0          | 98.0          | 143.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 6   | 14     | 1382.8 | 0.160869   | 52.3          | 86.9          | 127.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 6   | 15     | 1335.7 | 0.117344   | 38.1          | 63.4          | 92.7          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 1     | 6   | 16     | 1387.6 | 0.081185      | 26.4             | 43.8             | 64.1             |                       | -                             | -                             | -                             |
| 2020 | 1     | 6   | 17     | 1467.5 | 0.041427      | 13.5             | 22.4             | 32.7             |                       | -                             | -                             | -                             |
| 2020 | 1     | 6   | 18     | 1502.6 | 0.097373      | 31.6             | 52.6             | 76.9             |                       | -                             | -                             | -                             |
| 2020 | 1     | 6   | 19     | 1479.4 | 0.141606      | 46.0             | 76.5             | 111.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 6   | 20     | 1511   | 0.149082      | 48.5             | 80.5             | 117.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 6   | 21     | 1443.8 | 0.260047      | 84.5             | 140.4            | 205.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 6   | 22     | 1388.7 | 0.207034      | 67.3             | 111.8            | 163.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 6   | 23     | 1294.7 | 0.203811      | 66.2             | 110.1            | 161.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 6   | 24     | 1203.6 | 0.214217      | 69.6             | 115.7            | 169.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 1      | 1118.1 | 0.19607       | 63.7             | 105.9            | 154.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 2      | 1044.8 | 0.1468        | 47.7             | 79.3             | 116.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 3      | 1014.8 | 0.210389      | 68.4             | 113.6            | 166.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 4      | 1033.5 | 0.339846      | 110.4            | 183.5            | 268.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 5      | 1034.6 | 0.383009      | 124.5            | 206.8            | 302.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 6      | 1102.7 | 0.54312       | 176.5            | 293.3            | 429.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 7      | 1216.1 | 0.523062      | 170.0            | 282.5            | 413.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 8      | 1357   | 0.458653      | 149.1            | 247.7            | 362.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 9      | 1445.1 | 0.346986      | 112.8            | 187.4            | 274.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 10     | 1434   | 0.286763      | 93.2             | 154.9            | 226.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 11     | 1419.3 | 0.22623       | 73.5             | 122.2            | 178.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 12     | 1412.7 | 0.167649      | 54.5             | 90.5             | 132.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 13     | 1399.4 | 0.167067      | 54.3             | 90.2             | 132.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 14     | 1385   | 0.192889      | 62.7             | 104.2            | 152.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 15     | 1329   | 0.263419      | 85.6             | 142.2            | 208.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 16     | 1363.1 | 0.264466      | 86.0             | 142.8            | 208.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 17     | 1444.1 | 0.242153      | 78.7             | 130.8            | 191.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 18     | 1551.6 | 0.311694      | 101.3            | 168.3            | 246.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 19     | 1549   | 0.235215      | 76.4             | 127.0            | 185.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 20     | 1467.5 | 0.315931      | 102.7            | 170.6            | 249.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 21     | 1421.5 | 0.389411      | 126.6            | 210.3            | 307.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 22     | 1361.2 | 0.462055      | 150.2            | 249.5            | 365.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 23     | 1264.5 | 0.46149       | 150.0            | 249.2            | 364.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 7   | 24     | 1201.7 | 0.3579        | 116.3            | 193.3            | 282.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 8   | 1      | 1116.8 | 0.396693      | 128.9            | 214.2            | 313.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 8   | 2      | 1043   | 0.337552      | 109.7            | 182.3            | 266.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 8   | 3      | 1011.4 | 0.396273      | 128.8            | 214.0            | 313.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 8   | 4      | 997.9  | 0.379086      | 123.2            | 204.7            | 299.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 8   | 5      | 1030.7 | 0.382879      | 124.4            | 206.8            | 302.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 8   | 6      | 1100.2 | 0.310802      | 101.0            | 167.8            | 245.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 8   | 7      | 1223.9 | 0.325568      | 105.8            | 175.8            | 257.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 8   | 8      | 1325.6 | 0.280578      | 91.2             | 151.5            | 221.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 8   | 9      | 1408.4 | 0.357551      | 116.2            | 193.1            | 282.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 8   | 10     | 1427.1 | 0.339314      | 110.3            | 183.2            | 268.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 8   | 11     | 1411.9 | 0.289849      | 94.2             | 156.5            | 229.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 8   | 12     | 1377.8 | 0.258059      | 83.9             | 139.4            | 203.9            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 1     | 8   | 13     | 1401.8 | 0.246292   | 80.0          | 133.0         | 194.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 8   | 14     | 1386.5 | 0.264991   | 86.1          | 143.1         | 209.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 8   | 15     | 1388.3 | 0.223357   | 72.6          | 120.6         | 176.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 8   | 16     | 1392.4 | 0.241849   | 78.6          | 130.6         | 191.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 8   | 17     | 1484.8 | 0.255827   | 83.1          | 138.1         | 202.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 8   | 18     | 1564.8 | 0.255091   | 82.9          | 137.7         | 201.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 8   | 19     | 1514.2 | 0.21476    | 69.8          | 116.0         | 169.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 8   | 20     | 1502.9 | 0.126547   | 41.1          | 68.3          | 100.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 8   | 21     | 1452.1 | 0.095186   | 30.9          | 51.4          | 75.2          |                    | -                          | -                          | -                          |
| 2020 | 1     | 8   | 22     | 1386   | 0.102094   | 33.2          | 55.1          | 80.7          |                    | -                          | -                          | -                          |
| 2020 | 1     | 8   | 23     | 1281.8 | 0.105235   | 34.2          | 56.8          | 83.1          |                    | -                          | -                          | -                          |
| 2020 | 1     | 8   | 24     | 1195.4 | 0.060495   | 19.7          | 32.7          | 47.8          |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 1      | 1115.4 | 0.048614   | 15.8          | 26.3          | 38.4          |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 2      | 1047.1 | 0.044657   | 14.5          | 24.1          | 35.3          |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 3      | 1017.4 | 0.042103   | 13.7          | 22.7          | 33.3          |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 4      | 1039.9 | 0.051225   | 16.6          | 27.7          | 40.5          |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 5      | 1034.4 | 0.062063   | 20.2          | 33.5          | 49.0          |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 6      | 1103.8 | 0.083258   | 27.1          | 45.0          | 65.8          |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 7      | 1246.6 | 0.077571   | 25.2          | 41.9          | 61.3          |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 8      | 1401.3 | 0.081541   | 26.5          | 44.0          | 64.4          |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 9      | 1461.2 | 0.079514   | 25.8          | 42.9          | 62.8          |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 10     | 1453.3 | 0.123331   | 40.1          | 66.6          | 97.4          |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 11     | 1461.7 | 0.135274   | 44.0          | 73.0          | 106.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 12     | 1423.4 | 0.155223   | 50.4          | 83.8          | 122.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 13     | 1414.5 | 0.16782    | 54.5          | 90.6          | 132.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 14     | 1433.4 | 0.178285   | 57.9          | 96.3          | 140.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 15     | 1413.7 | 0.172142   | 55.9          | 93.0          | 136.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 16     | 1470.2 | 0.179952   | 58.5          | 97.2          | 142.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 17     | 1515.1 | 0.252728   | 82.1          | 136.5         | 199.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 18     | 1567.1 | 0.244647   | 79.5          | 132.1         | 193.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 19     | 1527.6 | 0.218421   | 71.0          | 117.9         | 172.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 20     | 1503.7 | 0.18512    | 60.2          | 100.0         | 146.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 21     | 1449.7 | 0.180909   | 58.8          | 97.7          | 142.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 22     | 1392.6 | 0.157621   | 51.2          | 85.1          | 124.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 23     | 1302   | 0.197952   | 64.3          | 106.9         | 156.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 9   | 24     | 1233.8 | 0.244319   | 79.4          | 131.9         | 193.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 10  | 1      | 1139.6 | 0.230559   | 74.9          | 124.5         | 182.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 10  | 2      | 1092.7 | 0.243348   | 79.1          | 131.4         | 192.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 10  | 3      | 1070.2 | 0.239325   | 77.8          | 129.2         | 189.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 10  | 4      | 1039.9 | 0.281339   | 91.4          | 151.9         | 222.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 10  | 5      | 1084.1 | 0.353217   | 114.8         | 190.7         | 279.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 10  | 6      | 1145.8 | 0.413779   | 134.5         | 223.4         | 326.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 10  | 7      | 1258.1 | 0.472849   | 153.7         | 255.3         | 373.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 10  | 8      | 1392.7 | 0.552583   | 179.6         | 298.4         | 436.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 10  | 9      | 1493.3 | 0.52204    | 169.7         | 281.9         | 412.4         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 1     | 10  | 10     | 1548.6 | 0.472658      | 153.6            | 255.2            | 373.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 10  | 11     | 1550.3 | 0.422         | 137.2            | 227.9            | 333.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 10  | 12     | 1527.8 | 0.437339      | 142.1            | 236.2            | 345.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 10  | 13     | 1506.6 | 0.460881      | 149.8            | 248.9            | 364.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 10  | 14     | 1484.4 | 0.386072      | 125.5            | 208.5            | 305.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 10  | 15     | 1451.6 | 0.30648       | 99.6             | 165.5            | 242.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 10  | 16     | 1510.3 | 0.312008      | 101.4            | 168.5            | 246.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 10  | 17     | 1513   | 0.301685      | 98.0             | 162.9            | 238.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 10  | 18     | 1604.2 | 0.453094      | 147.3            | 244.7            | 357.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 10  | 19     | 1552.2 | 0.566511      | 184.1            | 305.9            | 447.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 10  | 20     | 1476.2 | 0.560367      | 182.1            | 302.6            | 442.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 10  | 21     | 1449.4 | 0.623917      | 202.8            | 336.9            | 492.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 10  | 22     | 1354.2 | 0.570847      | 185.5            | 308.3            | 451.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 10  | 23     | 1267.3 | 0.4028        | 130.9            | 217.5            | 318.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 10  | 24     | 1242.4 | 0.428082      | 139.1            | 231.2            | 338.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 1      | 1169.4 | 0.366427      | 119.1            | 197.9            | 289.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 2      | 1112.4 | 0.525856      | 170.9            | 284.0            | 415.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 3      | 1082.2 | 0.616529      | 200.4            | 332.9            | 487.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 4      | 1075.8 | 0.718756      | 233.6            | 388.1            | 567.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 5      | 1072.2 | 0.801629      | 260.5            | 432.9            | 633.3            |                       | -                             | -                             | 51.09                         |
| 2020 | 1     | 11  | 6      | 1108   | 0.807384      | 262.4            | 436.0            | 637.8            |                       | -                             | -                             | 19.83                         |
| 2020 | 1     | 11  | 7      | 1173.5 | 0.809629      | 263.1            | 437.2            | 639.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 8      | 1230.3 | 0.815458      | 265.0            | 440.3            | 644.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 9      | 1336.9 | 0.778491      | 253.0            | 420.4            | 615.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 10     | 1397.7 | 0.783575      | 254.7            | 423.1            | 619.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 11     | 1478.7 | 0.724573      | 235.5            | 391.3            | 572.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 12     | 1449.8 | 0.712437      | 231.5            | 384.7            | 562.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 13     | 1480.1 | 0.729831      | 237.2            | 394.1            | 576.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 14     | 1430.6 | 0.721346      | 234.4            | 389.5            | 569.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 15     | 1406.3 | 0.683493      | 222.1            | 369.1            | 540.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 16     | 1415.6 | 0.626366      | 203.6            | 338.2            | 494.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 17     | 1406.3 | 0.586146      | 190.5            | 316.5            | 463.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 18     | 1535.8 | 0.589862      | 191.7            | 318.5            | 466.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 19     | 1534   | 0.565004      | 183.6            | 305.1            | 446.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 20     | 1486.1 | 0.461319      | 149.9            | 249.1            | 364.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 21     | 1414.7 | 0.376474      | 122.4            | 203.3            | 297.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 22     | 1419.2 | 0.329768      | 107.2            | 178.1            | 260.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 23     | 1357.9 | 0.252388      | 82.0             | 136.3            | 199.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 11  | 24     | 1241   | 0.245627      | 79.8             | 132.6            | 194.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 1      | 1156.4 | 0.306143      | 99.5             | 165.3            | 241.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 2      | 1111.7 | 0.228034      | 74.1             | 123.1            | 180.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 3      | 1133.4 | 0.201746      | 65.6             | 108.9            | 159.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 4      | 1129.6 | 0.203586      | 66.2             | 109.9            | 160.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 5      | 1149.4 | 0.167708      | 54.5             | 90.6             | 132.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 6      | 1155.3 | 0.17788       | 57.8             | 96.1             | 140.5            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 1     | 12  | 7      | 1217.3 | 0.129801      | 42.2             | 70.1             | 102.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 8      | 1249.5 | 0.146717      | 47.7             | 79.2             | 115.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 9      | 1364   | 0.13468       | 43.8             | 72.7             | 106.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 10     | 1459.6 | 0.208403      | 67.7             | 112.5            | 164.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 11     | 1505.2 | 0.193893      | 63.0             | 104.7            | 153.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 12     | 1533.3 | 0.20482       | 66.6             | 110.6            | 161.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 13     | 1510.8 | 0.198058      | 64.4             | 107.0            | 156.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 14     | 1469.5 | 0.238364      | 77.5             | 128.7            | 188.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 15     | 1431.5 | 0.345372      | 112.2            | 186.5            | 272.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 16     | 1455.2 | 0.452642      | 147.1            | 244.4            | 357.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 17     | 1521.9 | 0.591773      | 192.3            | 319.6            | 467.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 18     | 1625.9 | 0.725219      | 235.7            | 391.6            | 572.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 19     | 1620.9 | 0.823001      | 267.5            | 444.4            | 650.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 20     | 1613.9 | 0.860095      | 279.5            | 464.5            | 679.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 21     | 1555.6 | 0.839269      | 272.8            | 453.2            | 663.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 22     | 1498.7 | 0.871726      | 283.3            | 470.7            | 688.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 23     | 1438.7 | 0.825944      | 268.4            | 446.0            | 652.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 12  | 24     | 1337.1 | 0.792371      | 257.5            | 427.9            | 626.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 1      | 1344.4 | 0.851504      | 276.7            | 459.8            | 672.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 2      | 1344.9 | 0.814409      | 264.7            | 439.8            | 643.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 3      | 1382.3 | 0.833974      | 271.0            | 450.3            | 658.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 4      | 1397.1 | 0.797664      | 259.2            | 430.7            | 630.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 5      | 1395.5 | 0.66794       | 217.1            | 360.7            | 527.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 6      | 1466.5 | 0.682382      | 221.8            | 368.5            | 539.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 7      | 1600.9 | 0.687574      | 223.5            | 371.3            | 543.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 8      | 1757.3 | 0.725625      | 235.8            | 391.8            | 573.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 9      | 1892.4 | 0.640095      | 208.0            | 345.7            | 505.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 10     | 1875.2 | 0.620315      | 201.6            | 335.0            | 490.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 11     | 1812   | 0.618925      | 201.2            | 334.2            | 489.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 12     | 1761.8 | 0.632105      | 205.4            | 341.3            | 499.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 13     | 1734.8 | 0.673974      | 219.0            | 363.9            | 532.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 14     | 1730.2 | 0.711221      | 231.1            | 384.1            | 561.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 15     | 1676.5 | 0.688993      | 223.9            | 372.1            | 544.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 16     | 1769.2 | 0.757115      | 246.1            | 408.8            | 598.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 17     | 1837.1 | 0.749966      | 243.7            | 405.0            | 592.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 18     | 1917.1 | 0.780932      | 253.8            | 421.7            | 616.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 19     | 1885.9 | 0.887837      | 288.5            | 479.4            | 701.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 20     | 1873   | 0.857043      | 278.5            | 462.8            | 677.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 21     | 1796.8 | 0.831809      | 270.3            | 449.2            | 657.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 22     | 1712.8 | 0.820308      | 266.6            | 443.0            | 648.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 23     | 1592.7 | 0.86231       | 280.3            | 465.6            | 681.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 13  | 24     | 1503.8 | 0.845372      | 274.7            | 456.5            | 667.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 1      | 1389.1 | 0.706752      | 229.7            | 381.6            | 558.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 2      | 1304.2 | 0.7251        | 235.7            | 391.6            | 572.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 3      | 1258.2 | 0.738883      | 240.1            | 399.0            | 583.7            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 1     | 14  | 4      | 1258.8 | 0.781113      | 253.9            | 421.8            | 617.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 5      | 1250.3 | 0.823274      | 267.6            | 444.6            | 650.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 6      | 1310.1 | 0.799758      | 259.9            | 431.9            | 631.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 7      | 1451.4 | 0.797257      | 259.1            | 430.5            | 629.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 8      | 1588.5 | 0.812352      | 264.0            | 438.7            | 641.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 9      | 1666.1 | 0.832189      | 270.5            | 449.4            | 657.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 10     | 1699.8 | 0.841106      | 273.4            | 454.2            | 664.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 11     | 1677.8 | 0.84612       | 275.0            | 456.9            | 668.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 12     | 1625.5 | 0.816269      | 265.3            | 440.8            | 644.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 13     | 1560.6 | 0.692319      | 225.0            | 373.9            | 546.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 14     | 1495.7 | 0.591107      | 192.1            | 319.2            | 467.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 15     | 1492.1 | 0.514979      | 167.4            | 278.1            | 406.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 16     | 1537.3 | 0.420307      | 136.6            | 227.0            | 332.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 17     | 1591.5 | 0.379076      | 123.2            | 204.7            | 299.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 18     | 1695   | 0.349737      | 113.7            | 188.9            | 276.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 19     | 1709.9 | 0.280806      | 91.3             | 151.6            | 221.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 20     | 1622.6 | 0.381427      | 124.0            | 206.0            | 301.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 21     | 1611.1 | 0.399999      | 130.0            | 216.0            | 316.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 22     | 1538.6 | 0.445305      | 144.7            | 240.5            | 351.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 23     | 1451.7 | 0.425714      | 138.4            | 229.9            | 336.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 14  | 24     | 1431.5 | 0.566039      | 184.0            | 305.7            | 447.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 1      | 1347.9 | 0.641001      | 208.3            | 346.1            | 506.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 2      | 1321.7 | 0.535793      | 174.1            | 289.3            | 423.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 3      | 1281.8 | 0.493215      | 160.3            | 266.3            | 389.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 4      | 1259.1 | 0.448961      | 145.9            | 242.4            | 354.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 5      | 1253.9 | 0.386929      | 125.8            | 208.9            | 305.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 6      | 1348.3 | 0.359922      | 117.0            | 194.4            | 284.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 7      | 1466.5 | 0.368707      | 119.8            | 199.1            | 291.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 8      | 1588.1 | 0.441759      | 143.6            | 238.5            | 349.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 9      | 1668.7 | 0.488689      | 158.8            | 263.9            | 386.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 10     | 1669.4 | 0.465548      | 151.3            | 251.4            | 367.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 11     | 1695.3 | 0.424333      | 137.9            | 229.1            | 335.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 12     | 1601.6 | 0.508558      | 165.3            | 274.6            | 401.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 13     | 1604.2 | 0.476184      | 154.8            | 257.1            | 376.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 14     | 1556   | 0.538263      | 174.9            | 290.7            | 425.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 15     | 1549.2 | 0.456092      | 148.2            | 246.3            | 360.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 16     | 1587.5 | 0.410995      | 133.6            | 221.9            | 324.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 17     | 1666.2 | 0.504704      | 164.0            | 272.5            | 398.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 18     | 1710.5 | 0.484565      | 157.5            | 261.7            | 382.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 19     | 1654.8 | 0.604205      | 196.4            | 326.3            | 477.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 20     | 1621   | 0.690797      | 224.5            | 373.0            | 545.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 21     | 1563.5 | 0.747907      | 243.1            | 403.9            | 590.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 22     | 1466.4 | 0.745871      | 242.4            | 402.8            | 589.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 23     | 1404   | 0.692056      | 224.9            | 373.7            | 546.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 15  | 24     | 1332.5 | 0.702799      | 228.4            | 379.5            | 555.2            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 1     | 16  | 1      | 1267.8 | 0.665356      | 216.2            | 359.3            | 525.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 2      | 1216.9 | 0.683505      | 222.1            | 369.1            | 540.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 3      | 1169.3 | 0.603814      | 196.2            | 326.1            | 477.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 4      | 1170.1 | 0.636913      | 207.0            | 343.9            | 503.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 5      | 1164.2 | 0.720551      | 234.2            | 389.1            | 569.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 6      | 1223.2 | 0.694932      | 225.9            | 375.3            | 549.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 7      | 1370.9 | 0.63629       | 206.8            | 343.6            | 502.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 8      | 1507.2 | 0.58073       | 188.7            | 313.6            | 458.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 9      | 1584.9 | 0.548284      | 178.2            | 296.1            | 433.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 10     | 1550.8 | 0.368777      | 119.9            | 199.1            | 291.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 11     | 1572.3 | 0.315927      | 102.7            | 170.6            | 249.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 12     | 1511.6 | 0.282078      | 91.7             | 152.3            | 222.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 13     | 1546   | 0.263763      | 85.7             | 142.4            | 208.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 14     | 1529.6 | 0.1832        | 59.5             | 98.9             | 144.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 15     | 1520.1 | 0.139637      | 45.4             | 75.4             | 110.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 16     | 1530.5 | 0.119167      | 38.7             | 64.4             | 94.1             |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 17     | 1567.2 | 0.20208       | 65.7             | 109.1            | 159.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 18     | 1618.6 | 0.312016      | 101.4            | 168.5            | 246.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 19     | 1596.4 | 0.357038      | 116.0            | 192.8            | 282.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 20     | 1515.8 | 0.362313      | 117.8            | 195.6            | 286.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 21     | 1444.7 | 0.469737      | 152.7            | 253.7            | 371.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 22     | 1444.7 | 0.58852       | 191.3            | 317.8            | 464.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 23     | 1335.6 | 0.622806      | 202.4            | 336.3            | 492.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 16  | 24     | 1304.3 | 0.736747      | 239.4            | 397.8            | 582.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 1      | 1227.8 | 0.796562      | 258.9            | 430.1            | 629.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 2      | 1173.7 | 0.836254      | 271.8            | 451.6            | 660.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 3      | 1130.8 | 0.787419      | 255.9            | 425.2            | 622.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 4      | 1129.3 | 0.791795      | 257.3            | 427.6            | 625.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 5      | 1144   | 0.816441      | 265.3            | 440.9            | 645.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 6      | 1185.1 | 0.759539      | 246.9            | 410.2            | 600.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 7      | 1297.4 | 0.701609      | 228.0            | 378.9            | 554.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 8      | 1435.4 | 0.744639      | 242.0            | 402.1            | 588.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 9      | 1509.6 | 0.686638      | 223.2            | 370.8            | 542.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 10     | 1520.4 | 0.453433      | 147.4            | 244.9            | 358.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 11     | 1531.2 | 0.301065      | 97.8             | 162.6            | 237.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 12     | 1524.2 | 0.260049      | 84.5             | 140.4            | 205.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 13     | 1498.4 | 0.121846      | 39.6             | 65.8             | 96.3             |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 14     | 1441.8 | 0.047839      | 15.5             | 25.8             | 37.8             |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 15     | 1420.5 | 0.029372      | 9.5              | 15.9             | 23.2             |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 16     | 1412.3 | 0.018578      | 6.0              | 10.0             | 14.7             |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 17     | 1454.7 | 0.015167      | 4.9              | 8.2              | 12.0             |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 18     | 1551.2 | 0.012562      | 4.1              | 6.8              | 9.9              |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 19     | 1458.1 | 0.02806       | 9.1              | 15.2             | 22.2             |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 20     | 1396.6 | 0.048506      | 15.8             | 26.2             | 38.3             |                       | -                             | -                             | -                             |
| 2020 | 1     | 17  | 21     | 1398.8 | 0.136371      | 44.3             | 73.6             | 107.7            |                       | -                             | -                             | -                             |



| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 1     | 17  | 22     | 1353.3 | 0.204214   | 66.4          | 110.3         | 161.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 17  | 23     | 1260.8 | 0.339031   | 110.2         | 183.1         | 267.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 17  | 24     | 1214.7 | 0.557868   | 181.3         | 301.2         | 440.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 1      | 1173.8 | 0.637357   | 207.1         | 344.2         | 503.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 2      | 1081.4 | 0.670185   | 217.8         | 361.9         | 529.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 3      | 1042.6 | 0.746113   | 242.5         | 402.9         | 589.4         |                    | -                          | -                          | 36.83                      |
| 2020 | 1     | 18  | 4      | 1031.8 | 0.767602   | 249.5         | 414.5         | 606.4         |                    | -                          | -                          | 64.61                      |
| 2020 | 1     | 18  | 5      | 1047   | 0.664785   | 216.1         | 359.0         | 525.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 6      | 1074.8 | 0.67532    | 219.5         | 364.7         | 533.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 7      | 1123.9 | 0.748649   | 243.3         | 404.3         | 591.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 8      | 1207.5 | 0.797331   | 259.1         | 430.6         | 629.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 9      | 1295.4 | 0.795309   | 258.5         | 429.5         | 628.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 10     | 1338.5 | 0.802442   | 260.8         | 433.3         | 633.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 11     | 1356.7 | 0.80217    | 260.7         | 433.2         | 633.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 12     | 1307.6 | 0.780632   | 253.7         | 421.5         | 616.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 13     | 1298.1 | 0.796276   | 258.8         | 430.0         | 629.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 14     | 1298.1 | 0.848369   | 275.7         | 458.1         | 670.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 15     | 1305   | 0.847289   | 275.4         | 457.5         | 669.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 16     | 1335.7 | 0.805134   | 261.7         | 434.8         | 636.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 17     | 1390.4 | 0.814051   | 264.6         | 439.6         | 643.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 18     | 1467   | 0.822873   | 267.4         | 444.4         | 650.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 19     | 1408.7 | 0.852717   | 277.1         | 460.5         | 673.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 20     | 1385.1 | 0.739564   | 240.4         | 399.4         | 584.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 21     | 1276.1 | 0.773396   | 251.4         | 417.6         | 611.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 22     | 1289.9 | 0.754719   | 245.3         | 407.5         | 596.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 23     | 1238.8 | 0.749742   | 243.7         | 404.9         | 592.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 18  | 24     | 1142.4 | 0.851842   | 276.8         | 460.0         | 673.0         |                    | -                          | -                          | 20.56                      |
| 2020 | 1     | 19  | 1      | 1088.7 | 0.722031   | 234.7         | 389.9         | 570.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 2      | 1063.7 | 0.732838   | 238.2         | 395.7         | 578.9         |                    | -                          | -                          | 5.24                       |
| 2020 | 1     | 19  | 3      | 1078.8 | 0.674241   | 219.1         | 364.1         | 532.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 4      | 1102.9 | 0.639457   | 207.8         | 345.3         | 505.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 5      | 1154.1 | 0.54715    | 177.8         | 295.5         | 432.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 6      | 1188.5 | 0.563305   | 183.1         | 304.2         | 445.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 7      | 1221.2 | 0.526165   | 171.0         | 284.1         | 415.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 8      | 1286.7 | 0.51707    | 168.0         | 279.2         | 408.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 9      | 1389.7 | 0.551472   | 179.2         | 297.8         | 435.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 10     | 1477.9 | 0.496189   | 161.3         | 267.9         | 392.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 11     | 1475.4 | 0.360025   | 117.0         | 194.4         | 284.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 12     | 1405.9 | 0.470871   | 153.0         | 254.3         | 372.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 13     | 1418   | 0.522122   | 169.7         | 281.9         | 412.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 14     | 1360.1 | 0.590081   | 191.8         | 318.6         | 466.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 15     | 1342.3 | 0.326504   | 106.1         | 176.3         | 257.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 16     | 1416.2 | 0.148153   | 48.1          | 80.0          | 117.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 17     | 1485.7 | 0.097798   | 31.8          | 52.8          | 77.3          |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 18     | 1584.9 | 0.080674   | 26.2          | 43.6          | 63.7          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 1     | 19  | 19     | 1546.5 | 0.128238   | 41.7          | 69.2          | 101.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 20     | 1512.8 | 0.078992   | 25.7          | 42.7          | 62.4          |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 21     | 1512.4 | 0.136424   | 44.3          | 73.7          | 107.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 22     | 1503   | 0.196684   | 63.9          | 106.2         | 155.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 23     | 1402   | 0.156327   | 50.8          | 84.4          | 123.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 19  | 24     | 1300.8 | 0.151241   | 49.2          | 81.7          | 119.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 1      | 1209.3 | 0.102313   | 33.3          | 55.2          | 80.8          |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 2      | 1193.6 | 0.107051   | 34.8          | 57.8          | 84.6          |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 3      | 1203.6 | 0.212901   | 69.2          | 115.0         | 168.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 4      | 1188.5 | 0.205042   | 66.6          | 110.7         | 162.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 5      | 1207.8 | 0.177761   | 57.8          | 96.0          | 140.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 6      | 1296   | 0.232812   | 75.7          | 125.7         | 183.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 7      | 1412.1 | 0.161574   | 52.5          | 87.3          | 127.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 8      | 1539   | 0.21991    | 71.5          | 118.8         | 173.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 9      | 1615.5 | 0.273211   | 88.8          | 147.5         | 215.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 10     | 1636.4 | 0.278835   | 90.6          | 150.6         | 220.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 11     | 1668.7 | 0.248113   | 80.6          | 134.0         | 196.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 12     | 1643.1 | 0.271468   | 88.2          | 146.6         | 214.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 13     | 1660.9 | 0.308245   | 100.2         | 166.5         | 243.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 14     | 1675.7 | 0.244467   | 79.5          | 132.0         | 193.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 15     | 1567.2 | 0.387311   | 125.9         | 209.1         | 306.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 16     | 1618   | 0.608313   | 197.7         | 328.5         | 480.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 17     | 1690.5 | 0.724103   | 235.3         | 391.0         | 572.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 18     | 1725.4 | 0.754652   | 245.3         | 407.5         | 596.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 19     | 1700.4 | 0.739268   | 240.3         | 399.2         | 584.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 20     | 1642.3 | 0.613818   | 199.5         | 331.5         | 484.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 21     | 1571.8 | 0.653187   | 212.3         | 352.7         | 516.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 22     | 1526.8 | 0.659908   | 214.5         | 356.4         | 521.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 23     | 1413.2 | 0.723477   | 235.1         | 390.7         | 571.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 20  | 24     | 1353.7 | 0.651518   | 211.7         | 351.8         | 514.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 1      | 1275.8 | 0.589951   | 191.7         | 318.6         | 466.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 2      | 1192.9 | 0.527431   | 171.4         | 284.8         | 416.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 3      | 1179   | 0.54302    | 176.5         | 293.2         | 429.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 4      | 1152.8 | 0.578336   | 188.0         | 312.3         | 456.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 5      | 1150.5 | 0.454616   | 147.8         | 245.5         | 359.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 6      | 1226.6 | 0.45835    | 149.0         | 247.5         | 362.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 7      | 1326.9 | 0.354257   | 115.1         | 191.3         | 279.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 8      | 1462.4 | 0.311712   | 101.3         | 168.3         | 246.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 9      | 1575   | 0.181153   | 58.9          | 97.8          | 143.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 10     | 1609.2 | 0.18914    | 61.5          | 102.1         | 149.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 11     | 1532.1 | 0.129721   | 42.2          | 70.0          | 102.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 12     | 1463.8 | 0.077721   | 25.3          | 42.0          | 61.4          |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 13     | 1464.5 | 0.069573   | 22.6          | 37.6          | 55.0          |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 14     | 1394.2 | 0.111142   | 36.1          | 60.0          | 87.8          |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 15     | 1354.2 | 0.198521   | 64.5          | 107.2         | 156.8         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 1     | 21  | 16     | 1417.6 | 0.136515   | 44.4          | 73.7          | 107.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 17     | 1540.2 | 0.126562   | 41.1          | 68.3          | 100.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 18     | 1628.1 | 0.124787   | 40.6          | 67.4          | 98.6          |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 19     | 1562.9 | 0.162765   | 52.9          | 87.9          | 128.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 20     | 1557.1 | 0.145122   | 47.2          | 78.4          | 114.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 21     | 1517.4 | 0.183074   | 59.5          | 98.9          | 144.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 22     | 1421.3 | 0.236255   | 76.8          | 127.6         | 186.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 23     | 1332.5 | 0.391187   | 127.1         | 211.2         | 309.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 21  | 24     | 1279.2 | 0.56597    | 183.9         | 305.6         | 447.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 1      | 1194.5 | 0.700608   | 227.7         | 378.3         | 553.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 2      | 1125.8 | 0.632519   | 205.6         | 341.6         | 499.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 3      | 1117.4 | 0.608413   | 197.7         | 328.5         | 480.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 4      | 1122.7 | 0.663999   | 215.8         | 358.6         | 524.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 5      | 1125.8 | 0.751802   | 244.3         | 406.0         | 593.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 6      | 1198.9 | 0.679152   | 220.7         | 366.7         | 536.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 7      | 1335   | 0.628221   | 204.2         | 339.2         | 496.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 8      | 1468.4 | 0.645248   | 209.7         | 348.4         | 509.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 9      | 1567.3 | 0.629701   | 204.7         | 340.0         | 497.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 10     | 1566.9 | 0.469776   | 152.7         | 253.7         | 371.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 11     | 1524.3 | 0.419649   | 136.4         | 226.6         | 331.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 12     | 1505.4 | 0.414468   | 134.7         | 223.8         | 327.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 13     | 1540.4 | 0.374975   | 121.9         | 202.5         | 296.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 14     | 1460.2 | 0.340835   | 110.8         | 184.1         | 269.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 15     | 1480.8 | 0.435145   | 141.4         | 235.0         | 343.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 16     | 1528.5 | 0.433353   | 140.8         | 234.0         | 342.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 17     | 1596.3 | 0.360052   | 117.0         | 194.4         | 284.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 18     | 1633.9 | 0.358238   | 116.4         | 193.4         | 283.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 19     | 1559.3 | 0.239123   | 77.7          | 129.1         | 188.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 20     | 1498.6 | 0.131421   | 42.7          | 71.0          | 103.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 21     | 1458.3 | 0.021344   | 6.9           | 11.5          | 16.9          |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 22     | 1432.4 | 0.032973   | 10.7          | 17.8          | 26.0          |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 23     | 1326.6 | 0.059315   | 19.3          | 32.0          | 46.9          |                    | -                          | -                          | -                          |
| 2020 | 1     | 22  | 24     | 1283   | 0.111636   | 36.3          | 60.3          | 88.2          |                    | -                          | -                          | -                          |
| 2020 | 1     | 23  | 1      | 1196.1 | 0.105411   | 34.3          | 56.9          | 83.3          |                    | -                          | -                          | -                          |
| 2020 | 1     | 23  | 2      | 1146.6 | 0.110801   | 36.0          | 59.8          | 87.5          |                    | -                          | -                          | -                          |
| 2020 | 1     | 23  | 3      | 1122.9 | 0.094132   | 30.6          | 50.8          | 74.4          |                    | -                          | -                          | -                          |
| 2020 | 1     | 23  | 4      | 1108.8 | 0.123077   | 40.0          | 66.5          | 97.2          |                    | -                          | -                          | -                          |
| 2020 | 1     | 23  | 5      | 1119   | 0.159955   | 52.0          | 86.4          | 126.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 23  | 6      | 1189.3 | 0.235113   | 76.4          | 127.0         | 185.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 23  | 7      | 1309.5 | 0.205756   | 66.9          | 111.1         | 162.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 23  | 8      | 1448.6 | 0.192206   | 62.5          | 103.8         | 151.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 23  | 9      | 1495.6 | 0.180212   | 58.6          | 97.3          | 142.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 23  | 10     | 1456.9 | 0.132319   | 43.0          | 71.5          | 104.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 23  | 11     | 1444.8 | 0.10062    | 32.7          | 54.3          | 79.5          |                    | -                          | -                          | -                          |
| 2020 | 1     | 23  | 12     | 1443.8 | 0.145217   | 47.2          | 78.4          | 114.7         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 1     | 23  | 13     | 1449.5 | 0.18241       | 59.3             | 98.5             | 144.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 23  | 14     | 1379.8 | 0.168807      | 54.9             | 91.2             | 133.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 23  | 15     | 1389.7 | 0.152741      | 49.6             | 82.5             | 120.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 23  | 16     | 1377.6 | 0.170403      | 55.4             | 92.0             | 134.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 23  | 17     | 1460.4 | 0.248491      | 80.8             | 134.2            | 196.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 23  | 18     | 1555.4 | 0.366309      | 119.1            | 197.8            | 289.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 23  | 19     | 1590.1 | 0.47513       | 154.4            | 256.6            | 375.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 23  | 20     | 1536.3 | 0.442464      | 143.8            | 238.9            | 349.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 23  | 21     | 1483.7 | 0.466186      | 151.5            | 251.7            | 368.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 23  | 22     | 1410.1 | 0.548126      | 178.1            | 296.0            | 433.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 23  | 23     | 1357   | 0.627327      | 203.9            | 338.8            | 495.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 23  | 24     | 1291.1 | 0.736269      | 239.3            | 397.6            | 581.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 1      | 1229.8 | 0.726058      | 236.0            | 392.1            | 573.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 2      | 1178.3 | 0.739721      | 240.4            | 399.4            | 584.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 3      | 1142.1 | 0.756382      | 245.8            | 408.4            | 597.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 4      | 1171.5 | 0.832731      | 270.6            | 449.7            | 657.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 5      | 1165.3 | 0.839648      | 272.9            | 453.4            | 663.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 6      | 1214   | 0.820467      | 266.7            | 443.1            | 648.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 7      | 1359.5 | 0.844117      | 274.3            | 455.8            | 666.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 8      | 1495.5 | 0.851093      | 276.6            | 459.6            | 672.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 9      | 1555.8 | 0.821338      | 266.9            | 443.5            | 648.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 10     | 1592.7 | 0.831626      | 270.3            | 449.1            | 657.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 11     | 1505.4 | 0.8823        | 286.7            | 476.4            | 697.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 12     | 1463.9 | 0.877793      | 285.3            | 474.0            | 693.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 13     | 1469.9 | 0.863645      | 280.7            | 466.4            | 682.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 14     | 1443.8 | 0.887557      | 288.5            | 479.3            | 701.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 15     | 1373   | 0.829109      | 269.5            | 447.7            | 655.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 16     | 1415.9 | 0.776138      | 252.2            | 419.1            | 613.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 17     | 1509.7 | 0.61394       | 199.5            | 331.5            | 485.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 18     | 1593.6 | 0.634751      | 206.3            | 342.8            | 501.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 19     | 1568.8 | 0.527867      | 171.6            | 285.0            | 417.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 20     | 1579.3 | 0.339967      | 110.5            | 183.6            | 268.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 21     | 1497.3 | 0.273761      | 89.0             | 147.8            | 216.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 22     | 1473.7 | 0.169357      | 55.0             | 91.5             | 133.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 23     | 1392.3 | 0.129004      | 41.9             | 69.7             | 101.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 24  | 24     | 1388.8 | 0.183628      | 59.7             | 99.2             | 145.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 25  | 1      | 1341.3 | 0.170705      | 55.5             | 92.2             | 134.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 25  | 2      | 1288.4 | 0.17161       | 55.8             | 92.7             | 135.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 25  | 3      | 1248.8 | 0.1902        | 61.8             | 102.7            | 150.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 25  | 4      | 1280.8 | 0.123042      | 40.0             | 66.4             | 97.2             |                       | -                             | -                             | -                             |
| 2020 | 1     | 25  | 5      | 1293   | 0.137869      | 44.8             | 74.4             | 108.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 25  | 6      | 1332.5 | 0.203466      | 66.1             | 109.9            | 160.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 25  | 7      | 1379.3 | 0.195221      | 63.4             | 105.4            | 154.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 25  | 8      | 1477.8 | 0.229826      | 74.7             | 124.1            | 181.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 25  | 9      | 1575.6 | 0.23907       | 77.7             | 129.1            | 188.9            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 1     | 25  | 10     | 1571.8 | 0.259749   | 84.4          | 140.3         | 205.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 25  | 11     | 1554.7 | 0.337519   | 109.7         | 182.3         | 266.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 25  | 12     | 1566.9 | 0.409242   | 133.0         | 221.0         | 323.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 25  | 13     | 1481.3 | 0.389509   | 126.6         | 210.3         | 307.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 25  | 14     | 1417.8 | 0.475277   | 154.5         | 256.6         | 375.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 25  | 15     | 1352.7 | 0.472455   | 153.5         | 255.1         | 373.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 25  | 16     | 1384.2 | 0.382225   | 124.2         | 206.4         | 302.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 25  | 17     | 1510.3 | 0.335423   | 109.0         | 181.1         | 265.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 25  | 18     | 1613.4 | 0.352199   | 114.5         | 190.2         | 278.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 25  | 19     | 1672   | 0.373303   | 121.3         | 201.6         | 294.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 25  | 20     | 1623.2 | 0.402898   | 130.9         | 217.6         | 318.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 25  | 21     | 1549.7 | 0.445207   | 144.7         | 240.4         | 351.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 25  | 22     | 1516.1 | 0.508938   | 165.4         | 274.8         | 402.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 25  | 23     | 1456.3 | 0.540097   | 175.5         | 291.7         | 426.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 25  | 24     | 1374.4 | 0.501981   | 163.1         | 271.1         | 396.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 1      | 1336   | 0.56656    | 184.1         | 305.9         | 447.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 2      | 1279.4 | 0.553175   | 179.8         | 298.7         | 437.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 3      | 1309.1 | 0.444727   | 144.5         | 240.2         | 351.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 4      | 1327.8 | 0.406486   | 132.1         | 219.5         | 321.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 5      | 1310.5 | 0.391493   | 127.2         | 211.4         | 309.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 6      | 1360.8 | 0.32871    | 106.8         | 177.5         | 259.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 7      | 1400.3 | 0.425434   | 138.3         | 229.7         | 336.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 8      | 1414.7 | 0.447743   | 145.5         | 241.8         | 353.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 9      | 1514.5 | 0.491709   | 159.8         | 265.5         | 388.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 10     | 1532.9 | 0.528175   | 171.7         | 285.2         | 417.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 11     | 1500.7 | 0.51791    | 168.3         | 279.7         | 409.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 12     | 1433   | 0.444438   | 144.4         | 240.0         | 351.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 13     | 1435.6 | 0.479497   | 155.8         | 258.9         | 378.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 14     | 1406.1 | 0.433305   | 140.8         | 234.0         | 342.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 15     | 1344.4 | 0.465488   | 151.3         | 251.4         | 367.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 16     | 1386.5 | 0.397907   | 129.3         | 214.9         | 314.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 17     | 1445.5 | 0.335366   | 109.0         | 181.1         | 264.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 18     | 1544.8 | 0.269162   | 87.5          | 145.3         | 212.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 19     | 1583.5 | 0.250921   | 81.5          | 135.5         | 198.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 20     | 1573.9 | 0.251451   | 81.7          | 135.8         | 198.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 21     | 1539   | 0.191825   | 62.3          | 103.6         | 151.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 22     | 1451.4 | 0.230922   | 75.0          | 124.7         | 182.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 23     | 1393.6 | 0.18742    | 60.9          | 101.2         | 148.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 26  | 24     | 1316   | 0.154145   | 50.1          | 83.2          | 121.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 1      | 1248.4 | 0.104982   | 34.1          | 56.7          | 82.9          |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 2      | 1254.1 | 0.057371   | 18.6          | 31.0          | 45.3          |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 3      | 1242.5 | 0.05017    | 16.3          | 27.1          | 39.6          |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 4      | 1275   | 0.019692   | 6.4           | 10.6          | 15.6          |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 5      | 1299.2 | 0.030398   | 9.9           | 16.4          | 24.0          |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 6      | 1387.6 | 0.048382   | 15.7          | 26.1          | 38.2          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 1     | 27  | 7      | 1518.6 | 0.077219   | 25.1          | 41.7          | 61.0          |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 8      | 1609.4 | 0.106251   | 34.5          | 57.4          | 83.9          |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 9      | 1645.1 | 0.157843   | 51.3          | 85.2          | 124.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 10     | 1700   | 0.258609   | 84.0          | 139.6         | 204.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 11     | 1633.1 | 0.285583   | 92.8          | 154.2         | 225.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 12     | 1624.8 | 0.359422   | 116.8         | 194.1         | 283.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 13     | 1599.3 | 0.39341    | 127.9         | 212.4         | 310.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 14     | 1582.7 | 0.497346   | 161.6         | 268.6         | 392.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 15     | 1573.9 | 0.581356   | 188.9         | 313.9         | 459.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 16     | 1569.6 | 0.706235   | 229.5         | 381.4         | 557.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 17     | 1549.8 | 0.821288   | 266.9         | 443.5         | 648.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 18     | 1641.3 | 0.843125   | 274.0         | 455.3         | 666.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 19     | 1534.1 | 0.858272   | 278.9         | 463.5         | 678.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 20     | 1520.4 | 0.89138    | 289.7         | 481.3         | 704.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 21     | 1471.9 | 0.882249   | 286.7         | 476.4         | 697.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 22     | 1407.6 | 0.863245   | 280.6         | 466.2         | 682.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 23     | 1300.8 | 0.85914    | 279.2         | 463.9         | 678.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 27  | 24     | 1223.9 | 0.768244   | 249.7         | 414.9         | 606.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 1      | 1124   | 0.620503   | 201.7         | 335.1         | 490.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 2      | 1046   | 0.644541   | 209.5         | 348.1         | 509.2         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 3      | 1043.7 | 0.698249   | 226.9         | 377.1         | 551.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 4      | 1024.3 | 0.698954   | 227.2         | 377.4         | 552.2         |                    | -                          | -                          | 17.87                      |
| 2020 | 1     | 28  | 5      | 1028.2 | 0.616875   | 200.5         | 333.1         | 487.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 6      | 1070.5 | 0.662393   | 215.3         | 357.7         | 523.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 7      | 1166.5 | 0.785427   | 255.3         | 424.1         | 620.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 8      | 1293.7 | 0.779416   | 253.3         | 420.9         | 615.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 9      | 1389.1 | 0.783004   | 254.5         | 422.8         | 618.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 10     | 1376.5 | 0.788968   | 256.4         | 426.0         | 623.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 11     | 1353.3 | 0.808009   | 262.6         | 436.3         | 638.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 12     | 1375.1 | 0.751547   | 244.3         | 405.8         | 593.7         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 13     | 1391.7 | 0.779046   | 253.2         | 420.7         | 615.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 14     | 1355.1 | 0.79738    | 259.1         | 430.6         | 629.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 15     | 1274.4 | 0.790044   | 256.8         | 426.6         | 624.1         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 16     | 1327.7 | 0.717129   | 233.1         | 387.2         | 566.5         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 17     | 1383.4 | 0.685777   | 222.9         | 370.3         | 541.8         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 18     | 1420.3 | 0.585195   | 190.2         | 316.0         | 462.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 19     | 1406.7 | 0.427014   | 138.8         | 230.6         | 337.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 20     | 1395.8 | 0.343559   | 111.7         | 185.5         | 271.4         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 21     | 1328.7 | 0.209967   | 68.2          | 113.4         | 165.9         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 22     | 1280.5 | 0.155714   | 50.6          | 84.1          | 123.0         |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 23     | 1187.3 | 0.099246   | 32.3          | 53.6          | 78.4          |                    | -                          | -                          | -                          |
| 2020 | 1     | 28  | 24     | 1156.8 | 0.121902   | 39.6          | 65.8          | 96.3          |                    | -                          | -                          | -                          |
| 2020 | 1     | 29  | 1      | 1113.8 | 0.264001   | 85.8          | 142.6         | 208.6         |                    | -                          | -                          | -                          |
| 2020 | 1     | 29  | 2      | 1051   | 0.492842   | 160.2         | 266.1         | 389.3         |                    | -                          | -                          | -                          |
| 2020 | 1     | 29  | 3      | 1014.9 | 0.566447   | 184.1         | 305.9         | 447.5         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 1     | 29  | 4      | 1030   | 0.62394       | 202.8            | 336.9            | 492.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 5      | 1037.9 | 0.419893      | 136.5            | 226.7            | 331.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 6      | 1112.3 | 0.446513      | 145.1            | 241.1            | 352.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 7      | 1249.8 | 0.612811      | 199.2            | 330.9            | 484.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 8      | 1382   | 0.756492      | 245.9            | 408.5            | 597.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 9      | 1427   | 0.678328      | 220.5            | 366.3            | 535.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 10     | 1411.5 | 0.808111      | 262.6            | 436.4            | 638.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 11     | 1344.1 | 0.781552      | 254.0            | 422.0            | 617.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 12     | 1366.9 | 0.825644      | 268.3            | 445.8            | 652.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 13     | 1340.6 | 0.86546       | 281.3            | 467.3            | 683.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 14     | 1288.2 | 0.884509      | 287.5            | 477.6            | 698.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 15     | 1189.3 | 0.869338      | 282.5            | 469.4            | 686.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 16     | 1254.9 | 0.793052      | 257.7            | 428.2            | 626.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 17     | 1309.8 | 0.783517      | 254.6            | 423.1            | 619.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 18     | 1409.1 | 0.720273      | 234.1            | 388.9            | 569.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 19     | 1386   | 0.639179      | 207.7            | 345.2            | 505.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 20     | 1373   | 0.657024      | 213.5            | 354.8            | 519.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 21     | 1344.5 | 0.689802      | 224.2            | 372.5            | 544.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 22     | 1323.3 | 0.652969      | 212.2            | 352.6            | 515.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 23     | 1209.7 | 0.567058      | 184.3            | 306.2            | 448.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 29  | 24     | 1223.4 | 0.440282      | 143.1            | 237.8            | 347.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 1      | 1109.6 | 0.514044      | 167.1            | 277.6            | 406.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 2      | 1041.2 | 0.514324      | 167.2            | 277.7            | 406.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 3      | 1039.3 | 0.41921       | 136.2            | 226.4            | 331.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 4      | 1037.4 | 0.415348      | 135.0            | 224.3            | 328.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 5      | 1029.9 | 0.40018       | 130.1            | 216.1            | 316.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 6      | 1100.2 | 0.423099      | 137.5            | 228.5            | 334.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 7      | 1241.5 | 0.46297       | 150.5            | 250.0            | 365.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 8      | 1386   | 0.466958      | 151.8            | 252.2            | 368.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 9      | 1467.5 | 0.359409      | 116.8            | 194.1            | 283.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 10     | 1467.3 | 0.224049      | 72.8             | 121.0            | 177.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 11     | 1400.6 | 0.202936      | 66.0             | 109.6            | 160.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 12     | 1360.1 | 0.213289      | 69.3             | 115.2            | 168.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 13     | 1390.2 | 0.212457      | 69.0             | 114.7            | 167.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 14     | 1327.8 | 0.132217      | 43.0             | 71.4             | 104.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 15     | 1314.8 | 0.09308       | 30.3             | 50.3             | 73.5             |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 16     | 1351.5 | 0.059573      | 19.4             | 32.2             | 47.1             |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 17     | 1441.9 | 0.106136      | 34.5             | 57.3             | 83.8             |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 18     | 1493.7 | 0.176741      | 57.4             | 95.4             | 139.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 19     | 1473   | 0.321406      | 104.5            | 173.6            | 253.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 20     | 1438.9 | 0.418486      | 136.0            | 226.0            | 330.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 21     | 1419.6 | 0.640313      | 208.1            | 345.8            | 505.8            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 22     | 1343.2 | 0.797031      | 259.0            | 430.4            | 629.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 23     | 1274.1 | 0.781501      | 254.0            | 422.0            | 617.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 30  | 24     | 1215.2 | 0.721067      | 234.3            | 389.4            | 569.6            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 1     | 31  | 1      | 1138   | 0.752827      | 244.7            | 406.5            | 594.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 2      | 1073.8 | 0.73735       | 239.6            | 398.2            | 582.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 3      | 1041.5 | 0.68209       | 221.7            | 368.3            | 538.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 4      | 1031.9 | 0.667983      | 217.1            | 360.7            | 527.7            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 5      | 1062.7 | 0.669121      | 217.5            | 361.3            | 528.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 6      | 1116.7 | 0.604599      | 196.5            | 326.5            | 477.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 7      | 1250.2 | 0.478818      | 155.6            | 258.6            | 378.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 8      | 1392.3 | 0.535706      | 174.1            | 289.3            | 423.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 9      | 1498.9 | 0.443451      | 144.1            | 239.5            | 350.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 10     | 1576.6 | 0.429064      | 139.4            | 231.7            | 339.0            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 11     | 1576.3 | 0.435815      | 141.6            | 235.3            | 344.3            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 12     | 1541.7 | 0.363961      | 118.3            | 196.5            | 287.5            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 13     | 1559.4 | 0.362543      | 117.8            | 195.8            | 286.4            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 14     | 1526   | 0.269522      | 87.6             | 145.5            | 212.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 15     | 1514.2 | 0.190691      | 62.0             | 103.0            | 150.6            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 16     | 1579   | 0.131776      | 42.8             | 71.2             | 104.1            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 17     | 1649.1 | 0.089483      | 29.1             | 48.3             | 70.7             |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 18     | 1691.3 | 0.130583      | 42.4             | 70.5             | 103.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 19     | 1643.9 | 0.160573      | 52.2             | 86.7             | 126.9            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 20     | 1625.7 | 0.179978      | 58.5             | 97.2             | 142.2            |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 21     | 1562.7 | 0.126335      | 41.1             | 68.2             | 99.8             |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 22     | 1486.6 | 0.109677      | 35.6             | 59.2             | 86.6             |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 23     | 1440   | 0.076888      | 25.0             | 41.5             | 60.7             |                       | -                             | -                             | -                             |
| 2020 | 1     | 31  | 24     | 1426   | 0.059595      | 19.4             | 32.2             | 47.1             |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 1      | 1284.1 | 0.075838      | 24.6             | 41.0             | 59.9             |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 2      | 1229.5 | 0.1193        | 38.8             | 64.4             | 94.2             |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 3      | 1215.6 | 0.148051      | 48.1             | 79.9             | 117.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 4      | 1225.4 | 0.123243      | 40.1             | 66.6             | 97.4             |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 5      | 1190.2 | 0.168978      | 54.9             | 91.2             | 133.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 6      | 1246.3 | 0.223479      | 72.6             | 120.7            | 176.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 7      | 1320.5 | 0.243716      | 79.2             | 131.6            | 192.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 8      | 1441.7 | 0.282062      | 91.7             | 152.3            | 222.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 9      | 1554.1 | 0.27953       | 90.8             | 150.9            | 220.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 10     | 1588.7 | 0.298093      | 96.9             | 161.0            | 235.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 11     | 1594.1 | 0.404808      | 131.6            | 218.6            | 319.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 12     | 1569.4 | 0.469152      | 152.5            | 253.3            | 370.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 13     | 1559.7 | 0.437393      | 142.2            | 236.2            | 345.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 14     | 1475.5 | 0.590912      | 192.0            | 319.1            | 466.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 15     | 1408.7 | 0.586962      | 190.8            | 317.0            | 463.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 16     | 1456.6 | 0.556372      | 180.8            | 300.4            | 439.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 17     | 1528.8 | 0.561053      | 182.3            | 303.0            | 443.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 18     | 1665.7 | 0.552861      | 179.7            | 298.5            | 436.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 19     | 1701.2 | 0.557204      | 181.1            | 300.9            | 440.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 20     | 1677.5 | 0.406869      | 132.2            | 219.7            | 321.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 21     | 1606.2 | 0.35414       | 115.1            | 191.2            | 279.8            |                       | -                             | -                             | -                             |



| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 2     | 1   | 22     | 1517.8 | 0.287729      | 93.5             | 155.4            | 227.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 23     | 1463.8 | 0.170519      | 55.4             | 92.1             | 134.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 1   | 24     | 1334.5 | 0.098942      | 32.2             | 53.4             | 78.2             |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 1      | 1233.2 | 0.10976       | 35.7             | 59.3             | 86.7             |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 2      | 1218.9 | 0.094791      | 30.8             | 51.2             | 74.9             |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 3      | 1205.3 | 0.099147      | 32.2             | 53.5             | 78.3             |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 4      | 1247   | 0.118355      | 38.5             | 63.9             | 93.5             |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 5      | 1229.5 | 0.136271      | 44.3             | 73.6             | 107.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 6      | 1269.3 | 0.132431      | 43.0             | 71.5             | 104.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 7      | 1371.6 | 0.132164      | 43.0             | 71.4             | 104.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 8      | 1437.1 | 0.130377      | 42.4             | 70.4             | 103.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 9      | 1610.4 | 0.159         | 51.7             | 85.9             | 125.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 10     | 1707.5 | 0.14293       | 46.5             | 77.2             | 112.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 11     | 1608.1 | 0.13183       | 42.8             | 71.2             | 104.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 12     | 1558.3 | 0.12451       | 40.5             | 67.2             | 98.4             |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 13     | 1395.6 | 0.088215      | 28.7             | 47.6             | 69.7             |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 14     | 1365.6 | 0.098268      | 31.9             | 53.1             | 77.6             |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 15     | 1322.8 | 0.118913      | 38.6             | 64.2             | 93.9             |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 16     | 1335.9 | 0.114203      | 37.1             | 61.7             | 90.2             |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 17     | 1425.4 | 0.115675      | 37.6             | 62.5             | 91.4             |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 18     | 1597.8 | 0.161897      | 52.6             | 87.4             | 127.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 19     | 1690.4 | 0.129237      | 42.0             | 69.8             | 102.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 20     | 1655.4 | 0.170893      | 55.5             | 92.3             | 135.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 21     | 1625.3 | 0.175053      | 56.9             | 94.5             | 138.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 22     | 1638.7 | 0.175682      | 57.1             | 94.9             | 138.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 23     | 1520.3 | 0.180476      | 58.7             | 97.5             | 142.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 2   | 24     | 1362.2 | 0.209636      | 68.1             | 113.2            | 165.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 1      | 1286.6 | 0.214316      | 69.7             | 115.7            | 169.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 2      | 1245.7 | 0.190408      | 61.9             | 102.8            | 150.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 3      | 1252.6 | 0.239603      | 77.9             | 129.4            | 189.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 4      | 1306.3 | 0.26805       | 87.1             | 144.7            | 211.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 5      | 1273.9 | 0.28686       | 93.2             | 154.9            | 226.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 6      | 1416.1 | 0.340296      | 110.6            | 183.8            | 268.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 7      | 1591.2 | 0.321965      | 104.6            | 173.9            | 254.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 8      | 1726.5 | 0.275819      | 89.6             | 148.9            | 217.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 9      | 1795.2 | 0.322751      | 104.9            | 174.3            | 255.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 10     | 1784.8 | 0.386546      | 125.6            | 208.7            | 305.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 11     | 1731.5 | 0.39533       | 128.5            | 213.5            | 312.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 12     | 1666.3 | 0.416012      | 135.2            | 224.6            | 328.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 13     | 1698.6 | 0.370121      | 120.3            | 199.9            | 292.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 14     | 1621.6 | 0.390058      | 126.8            | 210.6            | 308.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 15     | 1571.5 | 0.440573      | 143.2            | 237.9            | 348.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 16     | 1561.9 | 0.486529      | 158.1            | 262.7            | 384.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 17     | 1686.8 | 0.484232      | 157.4            | 261.5            | 382.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 18     | 1810.1 | 0.488479      | 158.8            | 263.8            | 385.9            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 2     | 3   | 19     | 1748.4 | 0.530859      | 172.5            | 286.7            | 419.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 20     | 1749.8 | 0.501072      | 162.8            | 270.6            | 395.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 21     | 1632.5 | 0.517553      | 168.2            | 279.5            | 408.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 22     | 1585.2 | 0.451139      | 146.6            | 243.6            | 356.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 23     | 1473.7 | 0.50494       | 164.1            | 272.7            | 398.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 3   | 24     | 1414.5 | 0.501513      | 163.0            | 270.8            | 396.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 1      | 1383.6 | 0.546979      | 177.8            | 295.4            | 432.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 2      | 1305   | 0.564249      | 183.4            | 304.7            | 445.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 3      | 1270.7 | 0.540097      | 175.5            | 291.7            | 426.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 4      | 1308.9 | 0.468406      | 152.2            | 252.9            | 370.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 5      | 1318.2 | 0.432442      | 140.5            | 233.5            | 341.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 6      | 1431.6 | 0.41789       | 135.8            | 225.7            | 330.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 7      | 1598.2 | 0.415004      | 134.9            | 224.1            | 327.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 8      | 1746.7 | 0.405701      | 131.9            | 219.1            | 320.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 9      | 1848.1 | 0.403035      | 131.0            | 217.6            | 318.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 10     | 1849.1 | 0.387468      | 125.9            | 209.2            | 306.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 11     | 1778.2 | 0.405852      | 131.9            | 219.2            | 320.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 12     | 1817.9 | 0.484995      | 157.6            | 261.9            | 383.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 13     | 1779.9 | 0.506167      | 164.5            | 273.3            | 399.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 14     | 1744.7 | 0.527307      | 171.4            | 284.7            | 416.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 15     | 1716.6 | 0.497998      | 161.8            | 268.9            | 393.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 16     | 1730.2 | 0.505943      | 164.4            | 273.2            | 399.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 17     | 1782   | 0.524769      | 170.5            | 283.4            | 414.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 18     | 1900.3 | 0.545107      | 177.2            | 294.4            | 430.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 19     | 1933.9 | 0.544082      | 176.8            | 293.8            | 429.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 20     | 1889   | 0.52521       | 170.7            | 283.6            | 414.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 21     | 1850.9 | 0.505543      | 164.3            | 273.0            | 399.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 22     | 1796.9 | 0.496779      | 161.5            | 268.3            | 392.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 23     | 1671.8 | 0.420738      | 136.7            | 227.2            | 332.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 4   | 24     | 1630.5 | 0.412504      | 134.1            | 222.8            | 325.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 1      | 1549.9 | 0.450584      | 146.4            | 243.3            | 356.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 2      | 1506.5 | 0.388921      | 126.4            | 210.0            | 307.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 3      | 1494.8 | 0.389945      | 126.7            | 210.6            | 308.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 4      | 1499.9 | 0.392615      | 127.6            | 212.0            | 310.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 5      | 1531.3 | 0.396599      | 128.9            | 214.2            | 313.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 6      | 1584.7 | 0.400443      | 130.1            | 216.2            | 316.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 7      | 1705.5 | 0.380108      | 123.5            | 205.3            | 300.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 8      | 1827.5 | 0.377699      | 122.8            | 204.0            | 298.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 9      | 1884.2 | 0.325913      | 105.9            | 176.0            | 257.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 10     | 1837.3 | 0.246573      | 80.1             | 133.1            | 194.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 11     | 1728.2 | 0.273059      | 88.7             | 147.5            | 215.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 12     | 1695.6 | 0.352029      | 114.4            | 190.1            | 278.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 13     | 1635.6 | 0.314525      | 102.2            | 169.8            | 248.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 14     | 1567.5 | 0.314648      | 102.3            | 169.9            | 248.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 15     | 1524.3 | 0.209671      | 68.1             | 113.2            | 165.6            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 2     | 5   | 16     | 1611.2 | 0.27926       | 90.8             | 150.8            | 220.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 17     | 1653.6 | 0.232283      | 75.5             | 125.4            | 183.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 18     | 1714.3 | 0.280704      | 91.2             | 151.6            | 221.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 19     | 1699.7 | 0.348379      | 113.2            | 188.1            | 275.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 20     | 1717.5 | 0.338438      | 110.0            | 182.8            | 267.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 21     | 1633.3 | 0.301635      | 98.0             | 162.9            | 238.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 22     | 1545.6 | 0.409656      | 133.1            | 221.2            | 323.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 23     | 1465.1 | 0.406968      | 132.3            | 219.8            | 321.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 5   | 24     | 1461.3 | 0.415017      | 134.9            | 224.1            | 327.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 1      | 1420.1 | 0.446527      | 145.1            | 241.1            | 352.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 2      | 1325.8 | 0.467802      | 152.0            | 252.6            | 369.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 3      | 1338.6 | 0.452101      | 146.9            | 244.1            | 357.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 4      | 1317.3 | 0.46376       | 150.7            | 250.4            | 366.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 5      | 1331.7 | 0.522726      | 169.9            | 282.3            | 413.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 6      | 1421.2 | 0.616835      | 200.5            | 333.1            | 487.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 7      | 1592.1 | 0.680533      | 221.2            | 367.5            | 537.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 8      | 1756.1 | 0.728974      | 236.9            | 393.6            | 575.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 9      | 1810.6 | 0.734657      | 238.8            | 396.7            | 580.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 10     | 1740.1 | 0.665422      | 216.3            | 359.3            | 525.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 11     | 1670.8 | 0.655509      | 213.0            | 354.0            | 517.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 12     | 1592.7 | 0.588386      | 191.2            | 317.7            | 464.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 13     | 1537.7 | 0.582803      | 189.4            | 314.7            | 460.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 14     | 1546.7 | 0.516967      | 168.0            | 279.2            | 408.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 15     | 1557.8 | 0.445996      | 144.9            | 240.8            | 352.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 16     | 1547.7 | 0.389546      | 126.6            | 210.4            | 307.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 17     | 1639.8 | 0.429887      | 139.7            | 232.1            | 339.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 18     | 1682   | 0.419358      | 136.3            | 226.5            | 331.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 19     | 1692.5 | 0.468547      | 152.3            | 253.0            | 370.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 20     | 1706   | 0.502263      | 163.2            | 271.2            | 396.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 21     | 1640.2 | 0.464188      | 150.9            | 250.7            | 366.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 22     | 1572   | 0.474134      | 154.1            | 256.0            | 374.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 23     | 1480.4 | 0.423784      | 137.7            | 228.8            | 334.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 6   | 24     | 1445   | 0.388947      | 126.4            | 210.0            | 307.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 7   | 1      | 1389.6 | 0.398143      | 129.4            | 215.0            | 314.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 7   | 2      | 1346.9 | 0.353897      | 115.0            | 191.1            | 279.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 7   | 3      | 1300.3 | 0.395055      | 128.4            | 213.3            | 312.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 7   | 4      | 1304.4 | 0.463355      | 150.6            | 250.2            | 366.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 7   | 5      | 1360.8 | 0.340828      | 110.8            | 184.0            | 269.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 7   | 6      | 1511.6 | 0.396756      | 128.9            | 214.2            | 313.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 7   | 7      | 1656.7 | 0.378555      | 123.0            | 204.4            | 299.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 7   | 8      | 1802.3 | 0.368823      | 119.9            | 199.2            | 291.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 7   | 9      | 1857.5 | 0.368794      | 119.9            | 199.1            | 291.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 7   | 10     | 1829.8 | 0.35657       | 115.9            | 192.5            | 281.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 7   | 11     | 1786.7 | 0.365074      | 118.6            | 197.1            | 288.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 7   | 12     | 1764.5 | 0.254887      | 82.8             | 137.6            | 201.4            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 2     | 7   | 13     | 1757.8 | 0.23514    | 76.4          | 127.0         | 185.8         |                    | -                          | -                          | -                          |
| 2020 | 2     | 7   | 14     | 1678.2 | 0.228806   | 74.4          | 123.6         | 180.8         |                    | -                          | -                          | -                          |
| 2020 | 2     | 7   | 15     | 1624.2 | 0.247464   | 80.4          | 133.6         | 195.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 7   | 16     | 1563.8 | 0.148456   | 48.2          | 80.2          | 117.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 7   | 17     | 1651.7 | 0.16855    | 54.8          | 91.0          | 133.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 7   | 18     | 1736   | 0.071319   | 23.2          | 38.5          | 56.3          |                    | -                          | -                          | -                          |
| 2020 | 2     | 7   | 19     | 1712.6 | 0.113143   | 36.8          | 61.1          | 89.4          |                    | -                          | -                          | -                          |
| 2020 | 2     | 7   | 20     | 1696.5 | 0.102892   | 33.4          | 55.6          | 81.3          |                    | -                          | -                          | -                          |
| 2020 | 2     | 7   | 21     | 1644.2 | 0.205151   | 66.7          | 110.8         | 162.1         |                    | -                          | -                          | -                          |
| 2020 | 2     | 7   | 22     | 1517.1 | 0.353535   | 114.9         | 190.9         | 279.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 7   | 23     | 1462.3 | 0.346517   | 112.6         | 187.1         | 273.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 7   | 24     | 1429.9 | 0.311155   | 101.1         | 168.0         | 245.8         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 1      | 1421.8 | 0.339637   | 110.4         | 183.4         | 268.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 2      | 1351.8 | 0.433796   | 141.0         | 234.3         | 342.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 3      | 1334.8 | 0.40526    | 131.7         | 218.8         | 320.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 4      | 1328   | 0.38118    | 123.9         | 205.8         | 301.1         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 5      | 1360.5 | 0.315439   | 102.5         | 170.3         | 249.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 6      | 1386.8 | 0.292437   | 95.0          | 157.9         | 231.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 7      | 1446.4 | 0.241006   | 78.3          | 130.1         | 190.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 8      | 1568.9 | 0.202098   | 65.7          | 109.1         | 159.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 9      | 1682.7 | 0.142524   | 46.3          | 77.0          | 112.6         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 10     | 1652.8 | 0.079188   | 25.7          | 42.8          | 62.6          |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 11     | 1645.1 | 0.063496   | 20.6          | 34.3          | 50.2          |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 12     | 1643.5 | 0.086157   | 28.0          | 46.5          | 68.1          |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 13     | 1589.9 | 0.11269    | 36.6          | 60.9          | 89.0          |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 14     | 1510.1 | 0.254953   | 82.9          | 137.7         | 201.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 15     | 1458.1 | 0.341093   | 110.9         | 184.2         | 269.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 16     | 1506   | 0.356464   | 115.9         | 192.5         | 281.6         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 17     | 1502.7 | 0.449903   | 146.2         | 242.9         | 355.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 18     | 1645.6 | 0.495731   | 161.1         | 267.7         | 391.6         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 19     | 1711.1 | 0.5543     | 180.1         | 299.3         | 437.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 20     | 1665   | 0.593997   | 193.0         | 320.8         | 469.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 21     | 1649.2 | 0.637216   | 207.1         | 344.1         | 503.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 22     | 1590.5 | 0.605055   | 196.6         | 326.7         | 478.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 23     | 1540.9 | 0.524234   | 170.4         | 283.1         | 414.1         |                    | -                          | -                          | -                          |
| 2020 | 2     | 8   | 24     | 1433.9 | 0.523637   | 170.2         | 282.8         | 413.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 1      | 1337.7 | 0.450394   | 146.4         | 243.2         | 355.8         |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 2      | 1333.9 | 0.450603   | 146.4         | 243.3         | 356.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 3      | 1301.5 | 0.473806   | 154.0         | 255.9         | 374.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 4      | 1265.3 | 0.448423   | 145.7         | 242.1         | 354.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 5      | 1267.1 | 0.472418   | 153.5         | 255.1         | 373.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 6      | 1247.9 | 0.532069   | 172.9         | 287.3         | 420.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 7      | 1305.6 | 0.249586   | 81.1          | 134.8         | 197.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 8      | 1332.7 | 0.14415    | 46.8          | 77.8          | 113.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 9      | 1472.6 | 0.171492   | 55.7          | 92.6          | 135.5         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 2     | 9   | 10     | 1523.1 | 0.067278   | 21.9          | 36.3          | 53.1          |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 11     | 1534.7 | 0.027579   | 9.0           | 14.9          | 21.8          |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 12     | 1478.8 | 0.021976   | 7.1           | 11.9          | 17.4          |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 13     | 1507.5 | 0.049343   | 16.0          | 26.6          | 39.0          |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 14     | 1403.7 | 0.019917   | 6.5           | 10.8          | 15.7          |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 15     | 1355.6 | 0.028691   | 9.3           | 15.5          | 22.7          |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 16     | 1428.5 | 0.02688    | 8.7           | 14.5          | 21.2          |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 17     | 1448.3 | 0.040537   | 13.2          | 21.9          | 32.0          |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 18     | 1514.7 | 0.089235   | 29.0          | 48.2          | 70.5          |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 19     | 1531.9 | 0.200546   | 65.2          | 108.3         | 158.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 20     | 1402.6 | 0.346174   | 112.5         | 186.9         | 273.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 21     | 1393.9 | 0.527416   | 171.4         | 284.8         | 416.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 22     | 1298.6 | 0.639436   | 207.8         | 345.3         | 505.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 23     | 1219.9 | 0.659454   | 214.3         | 356.1         | 521.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 9   | 24     | 1132.5 | 0.647875   | 210.6         | 349.9         | 511.8         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 1      | 1070.1 | 0.636609   | 206.9         | 343.8         | 502.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 2      | 1059   | 0.51816    | 168.4         | 279.8         | 409.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 3      | 1034.2 | 0.396808   | 129.0         | 214.3         | 313.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 4      | 1049.7 | 0.373246   | 121.3         | 201.6         | 294.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 5      | 1068.9 | 0.299543   | 97.4          | 161.8         | 236.6         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 6      | 1121.7 | 0.220993   | 71.8          | 119.3         | 174.6         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 7      | 1237.4 | 0.14535    | 47.2          | 78.5          | 114.8         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 8      | 1390.4 | 0.077536   | 25.2          | 41.9          | 61.3          |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 9      | 1492   | 0.037937   | 12.3          | 20.5          | 30.0          |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 10     | 1533.4 | 0.045873   | 14.9          | 24.8          | 36.2          |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 11     | 1492.8 | 0.05615    | 18.2          | 30.3          | 44.4          |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 12     | 1536.5 | 0.103412   | 33.6          | 55.8          | 81.7          |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 13     | 1466.2 | 0.160141   | 52.0          | 86.5          | 126.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 14     | 1409.3 | 0.167342   | 54.4          | 90.4          | 132.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 15     | 1378.7 | 0.189581   | 61.6          | 102.4         | 149.8         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 16     | 1430.9 | 0.22052    | 71.7          | 119.1         | 174.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 17     | 1479.3 | 0.205974   | 66.9          | 111.2         | 162.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 18     | 1522.5 | 0.460671   | 149.7         | 248.8         | 363.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 19     | 1497.2 | 0.482554   | 156.8         | 260.6         | 381.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 20     | 1501.8 | 0.524426   | 170.4         | 283.2         | 414.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 21     | 1410.5 | 0.624262   | 202.9         | 337.1         | 493.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 22     | 1326   | 0.743906   | 241.8         | 401.7         | 587.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 23     | 1244   | 0.696113   | 226.2         | 375.9         | 549.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 10  | 24     | 1208.9 | 0.626812   | 203.7         | 338.5         | 495.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 11  | 1      | 1138.7 | 0.621555   | 202.0         | 335.6         | 491.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 11  | 2      | 1073.9 | 0.629597   | 204.6         | 340.0         | 497.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 11  | 3      | 1047.4 | 0.527792   | 171.5         | 285.0         | 417.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 11  | 4      | 1031   | 0.527885   | 171.6         | 285.1         | 417.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 11  | 5      | 1035.1 | 0.439143   | 142.7         | 237.1         | 346.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 11  | 6      | 1086.7 | 0.437445   | 142.2         | 236.2         | 345.6         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 2     | 11  | 7      | 1208   | 0.409135      | 133.0            | 220.9            | 323.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 8      | 1356.8 | 0.400903      | 130.3            | 216.5            | 316.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 9      | 1437.8 | 0.314637      | 102.3            | 169.9            | 248.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 10     | 1482   | 0.370359      | 120.4            | 200.0            | 292.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 11     | 1424.5 | 0.286369      | 93.1             | 154.6            | 226.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 12     | 1372.2 | 0.313004      | 101.7            | 169.0            | 247.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 13     | 1386.4 | 0.197905      | 64.3             | 106.9            | 156.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 14     | 1303.2 | 0.168606      | 54.8             | 91.0             | 133.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 15     | 1266.8 | 0.074368      | 24.2             | 40.2             | 58.8             |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 16     | 1385.6 | 0.03001       | 9.8              | 16.2             | 23.7             |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 17     | 1419.4 | 0.11763       | 38.2             | 63.5             | 92.9             |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 18     | 1463   | 0.26048       | 84.7             | 140.7            | 205.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 19     | 1481.5 | 0.320126      | 104.0            | 172.9            | 252.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 20     | 1525.7 | 0.419479      | 136.3            | 226.5            | 331.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 21     | 1384.9 | 0.448861      | 145.9            | 242.4            | 354.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 22     | 1302   | 0.450979      | 146.6            | 243.5            | 356.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 23     | 1210.7 | 0.459845      | 149.4            | 248.3            | 363.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 11  | 24     | 1177   | 0.433617      | 140.9            | 234.2            | 342.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 1      | 1114.3 | 0.300958      | 97.8             | 162.5            | 237.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 2      | 1072.8 | 0.371546      | 120.8            | 200.6            | 293.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 3      | 1064.9 | 0.347476      | 112.9            | 187.6            | 274.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 4      | 1047   | 0.261921      | 85.1             | 141.4            | 206.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 5      | 1080.3 | 0.318762      | 103.6            | 172.1            | 251.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 6      | 1159.2 | 0.341802      | 111.1            | 184.6            | 270.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 7      | 1276.6 | 0.495169      | 160.9            | 267.4            | 391.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 8      | 1454.9 | 0.466772      | 151.7            | 252.1            | 368.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 9      | 1538.3 | 0.460752      | 149.7            | 248.8            | 364.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 10     | 1609.7 | 0.584619      | 190.0            | 315.7            | 461.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 11     | 1485.2 | 0.526308      | 171.1            | 284.2            | 415.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 12     | 1373.2 | 0.584589      | 190.0            | 315.7            | 461.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 13     | 1283.9 | 0.606361      | 197.1            | 327.4            | 479.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 14     | 1202.9 | 0.669862      | 217.7            | 361.7            | 529.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 15     | 1162.4 | 0.56183       | 182.6            | 303.4            | 443.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 16     | 1183.7 | 0.570884      | 185.5            | 308.3            | 451.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 17     | 1259.9 | 0.588044      | 191.1            | 317.5            | 464.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 18     | 1350.6 | 0.535074      | 173.9            | 288.9            | 422.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 19     | 1378.3 | 0.63344       | 205.9            | 342.1            | 500.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 20     | 1367.5 | 0.642234      | 208.7            | 346.8            | 507.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 21     | 1310.1 | 0.66581       | 216.4            | 359.5            | 526.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 22     | 1269.6 | 0.670223      | 217.8            | 361.9            | 529.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 23     | 1215.5 | 0.650378      | 211.4            | 351.2            | 513.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 12  | 24     | 1144.3 | 0.662446      | 215.3            | 357.7            | 523.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 1      | 1125.3 | 0.668451      | 217.2            | 361.0            | 528.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 2      | 1075.5 | 0.589329      | 191.5            | 318.2            | 465.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 3      | 1032   | 0.583375      | 189.6            | 315.0            | 460.9            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 2     | 13  | 4      | 1059.3 | 0.558245      | 181.4            | 301.5            | 441.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 5      | 1061.3 | 0.59198       | 192.4            | 319.7            | 467.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 6      | 1127.9 | 0.637901      | 207.3            | 344.5            | 503.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 7      | 1262.3 | 0.580236      | 188.6            | 313.3            | 458.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 8      | 1415.4 | 0.547143      | 177.8            | 295.5            | 432.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 9      | 1524.9 | 0.588456      | 191.2            | 317.8            | 464.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 10     | 1518.5 | 0.530234      | 172.3            | 286.3            | 418.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 11     | 1494.4 | 0.654916      | 212.8            | 353.7            | 517.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 12     | 1443.5 | 0.580825      | 188.8            | 313.6            | 458.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 13     | 1466.9 | 0.530687      | 172.5            | 286.6            | 419.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 14     | 1391.1 | 0.596161      | 193.8            | 321.9            | 471.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 15     | 1401.2 | 0.518064      | 168.4            | 279.8            | 409.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 16     | 1396.8 | 0.41129       | 133.7            | 222.1            | 324.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 17     | 1440   | 0.321738      | 104.6            | 173.7            | 254.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 18     | 1519.5 | 0.376612      | 122.4            | 203.4            | 297.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 19     | 1556.3 | 0.480278      | 156.1            | 259.4            | 379.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 20     | 1544.5 | 0.508186      | 165.2            | 274.4            | 401.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 21     | 1478.2 | 0.421606      | 137.0            | 227.7            | 333.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 22     | 1398.4 | 0.456632      | 148.4            | 246.6            | 360.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 23     | 1262.2 | 0.457206      | 148.6            | 246.9            | 361.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 13  | 24     | 1222.7 | 0.39231       | 127.5            | 211.8            | 309.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 1      | 1155.2 | 0.3549        | 115.3            | 191.6            | 280.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 2      | 1111.8 | 0.274035      | 89.1             | 148.0            | 216.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 3      | 1085.7 | 0.21977       | 71.4             | 118.7            | 173.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 4      | 1073.5 | 0.143736      | 46.7             | 77.6             | 113.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 5      | 1075.2 | 0.189044      | 61.4             | 102.1            | 149.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 6      | 1128.1 | 0.207982      | 67.6             | 112.3            | 164.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 7      | 1257.7 | 0.159665      | 51.9             | 86.2             | 126.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 8      | 1400.4 | 0.155819      | 50.6             | 84.1             | 123.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 9      | 1496.8 | 0.113417      | 36.9             | 61.2             | 89.6             |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 10     | 1444.5 | 0.11737       | 38.1             | 63.4             | 92.7             |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 11     | 1416.7 | 0.109861      | 35.7             | 59.3             | 86.8             |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 12     | 1345.1 | 0.120381      | 39.1             | 65.0             | 95.1             |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 13     | 1321.1 | 0.083583      | 27.2             | 45.1             | 66.0             |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 14     | 1272.6 | 0.084256      | 27.4             | 45.5             | 66.6             |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 15     | 1238.7 | 0.095904      | 31.2             | 51.8             | 75.8             |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 16     | 1243.1 | 0.136725      | 44.4             | 73.8             | 108.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 17     | 1262.5 | 0.149232      | 48.5             | 80.6             | 117.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 18     | 1375.1 | 0.437284      | 142.1            | 236.1            | 345.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 19     | 1395.8 | 0.406752      | 132.2            | 219.6            | 321.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 20     | 1404.1 | 0.480258      | 156.1            | 259.3            | 379.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 21     | 1364.5 | 0.44891       | 145.9            | 242.4            | 354.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 22     | 1296.6 | 0.419801      | 136.4            | 226.7            | 331.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 23     | 1184.9 | 0.399866      | 130.0            | 215.9            | 315.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 14  | 24     | 1144   | 0.385235      | 125.2            | 208.0            | 304.3            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 2     | 15  | 1      | 1104.2 | 0.358638      | 116.6            | 193.7            | 283.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 2      | 1043.1 | 0.302969      | 98.5             | 163.6            | 239.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 3      | 1020.4 | 0.236512      | 76.9             | 127.7            | 186.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 4      | 1014.5 | 0.241932      | 78.6             | 130.6            | 191.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 5      | 1019.1 | 0.20531       | 66.7             | 110.9            | 162.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 6      | 1032.9 | 0.138836      | 45.1             | 75.0             | 109.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 7      | 1080.3 | 0.191493      | 62.2             | 103.4            | 151.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 8      | 1134.6 | 0.160535      | 52.2             | 86.7             | 126.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 9      | 1201.5 | 0.189098      | 61.5             | 102.1            | 149.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 10     | 1269   | 0.090083      | 29.3             | 48.6             | 71.2             |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 11     | 1296.3 | 0.061502      | 20.0             | 33.2             | 48.6             |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 12     | 1276.8 | 0.024425      | 7.9              | 13.2             | 19.3             |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 13     | 1258   | 0.022392      | 7.3              | 12.1             | 17.7             |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 14     | 1166   | 0.009824      | 3.2              | 5.3              | 7.8              |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 15     | 1120.5 | 0.016253      | 5.3              | 8.8              | 12.8             |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 16     | 1095.8 | 0.013473      | 4.4              | 7.3              | 10.6             |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 17     | 1186.6 | 0.016698      | 5.4              | 9.0              | 13.2             |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 18     | 1216.3 | 0.018625      | 6.1              | 10.1             | 14.7             |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 19     | 1259.6 | 0.032397      | 10.5             | 17.5             | 25.6             |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 20     | 1266.9 | 0.055593      | 18.1             | 30.0             | 43.9             |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 21     | 1257.8 | 0.05464       | 17.8             | 29.5             | 43.2             |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 22     | 1226.6 | 0.084476      | 27.5             | 45.6             | 66.7             |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 23     | 1206.7 | 0.082298      | 26.7             | 44.4             | 65.0             |                       | -                             | -                             | -                             |
| 2020 | 2     | 15  | 24     | 1116.2 | 0.136083      | 44.2             | 73.5             | 107.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 1      | 1054.4 | 0.146856      | 47.7             | 79.3             | 116.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 2      | 1027   | 0.150337      | 48.9             | 81.2             | 118.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 3      | 1018.4 | 0.137228      | 44.6             | 74.1             | 108.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 4      | 992.5  | 0.123712      | 40.2             | 66.8             | 97.7             |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 5      | 999.8  | 0.121723      | 39.6             | 65.7             | 96.2             |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 6      | 1035   | 0.131245      | 42.7             | 70.9             | 103.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 7      | 1064.9 | 0.128264      | 41.7             | 69.3             | 101.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 8      | 1117.2 | 0.14585       | 47.4             | 78.8             | 115.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 9      | 1169.1 | 0.143331      | 46.6             | 77.4             | 113.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 10     | 1231.7 | 0.147024      | 47.8             | 79.4             | 116.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 11     | 1285   | 0.11115       | 36.1             | 60.0             | 87.8             |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 12     | 1252.2 | 0.145294      | 47.2             | 78.5             | 114.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 13     | 1267   | 0.180696      | 58.7             | 97.6             | 142.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 14     | 1273.2 | 0.26281       | 85.4             | 141.9            | 207.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 15     | 1236.9 | 0.301536      | 98.0             | 162.8            | 238.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 16     | 1248.5 | 0.294563      | 95.7             | 159.1            | 232.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 17     | 1287.5 | 0.372911      | 121.2            | 201.4            | 294.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 18     | 1399.1 | 0.308617      | 100.3            | 166.7            | 243.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 19     | 1313.8 | 0.278669      | 90.6             | 150.5            | 220.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 20     | 1356.5 | 0.241851      | 78.6             | 130.6            | 191.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 21     | 1323.9 | 0.202269      | 65.7             | 109.2            | 159.8            |                       | -                             | -                             | -                             |



| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 2     | 16  | 22     | 1275.7 | 0.218058      | 70.9             | 117.8            | 172.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 23     | 1184.9 | 0.220616      | 71.7             | 119.1            | 174.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 16  | 24     | 1080.3 | 0.239915      | 78.0             | 129.6            | 189.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 1      | 1035.2 | 0.194468      | 63.2             | 105.0            | 153.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 2      | 993.8  | 0.203811      | 66.2             | 110.1            | 161.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 3      | 993.1  | 0.224528      | 73.0             | 121.2            | 177.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 4      | 997.3  | 0.238245      | 77.4             | 128.7            | 188.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 5      | 995.6  | 0.259309      | 84.3             | 140.0            | 204.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 6      | 1055.9 | 0.218419      | 71.0             | 117.9            | 172.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 7      | 1172.6 | 0.208832      | 67.9             | 112.8            | 165.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 8      | 1305.4 | 0.216668      | 70.4             | 117.0            | 171.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 9      | 1381.3 | 0.207477      | 67.4             | 112.0            | 163.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 10     | 1408.3 | 0.214553      | 69.7             | 115.9            | 169.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 11     | 1412.7 | 0.191938      | 62.4             | 103.6            | 151.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 12     | 1330.5 | 0.183455      | 59.6             | 99.1             | 144.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 13     | 1357.1 | 0.189261      | 61.5             | 102.2            | 149.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 14     | 1304.8 | 0.188108      | 61.1             | 101.6            | 148.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 15     | 1250.2 | 0.197141      | 64.1             | 106.5            | 155.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 16     | 1317.6 | 0.189313      | 61.5             | 102.2            | 149.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 17     | 1392.8 | 0.122305      | 39.7             | 66.0             | 96.6             |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 18     | 1418.3 | 0.163035      | 53.0             | 88.0             | 128.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 19     | 1406.9 | 0.249947      | 81.2             | 135.0            | 197.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 20     | 1396.2 | 0.23925       | 77.8             | 129.2            | 189.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 21     | 1358.6 | 0.275425      | 89.5             | 148.7            | 217.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 22     | 1244   | 0.236487      | 76.9             | 127.7            | 186.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 23     | 1174.3 | 0.222479      | 72.3             | 120.1            | 175.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 17  | 24     | 1164.6 | 0.241107      | 78.4             | 130.2            | 190.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 1      | 1092.4 | 0.227074      | 73.8             | 122.6            | 179.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 2      | 1028.6 | 0.231364      | 75.2             | 124.9            | 182.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 3      | 1014.5 | 0.229539      | 74.6             | 124.0            | 181.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 4      | 1019.1 | 0.275838      | 89.6             | 149.0            | 217.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 5      | 998.9  | 0.235471      | 76.5             | 127.2            | 186.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 6      | 1047.3 | 0.23192       | 75.4             | 125.2            | 183.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 7      | 1182.4 | 0.249912      | 81.2             | 135.0            | 197.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 8      | 1323.2 | 0.236773      | 77.0             | 127.9            | 187.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 9      | 1407.7 | 0.280179      | 91.1             | 151.3            | 221.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 10     | 1377.5 | 0.366137      | 119.0            | 197.7            | 289.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 11     | 1334.3 | 0.420828      | 136.8            | 227.2            | 332.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 12     | 1282   | 0.515306      | 167.5            | 278.3            | 407.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 13     | 1241.9 | 0.578754      | 188.1            | 312.5            | 457.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 14     | 1188.9 | 0.658961      | 214.2            | 355.8            | 520.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 15     | 1172.9 | 0.746254      | 242.5            | 403.0            | 589.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 16     | 1188.9 | 0.643428      | 209.1            | 347.5            | 508.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 17     | 1223.3 | 0.686418      | 223.1            | 370.7            | 542.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 18  | 18     | 1250.9 | 0.70807       | 230.1            | 382.4            | 559.4            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 2     | 18  | 19     | 1297.3 | 0.673671   | 218.9         | 363.8         | 532.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 18  | 20     | 1341.9 | 0.711328   | 231.2         | 384.1         | 561.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 18  | 21     | 1268.2 | 0.707961   | 230.1         | 382.3         | 559.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 18  | 22     | 1209.6 | 0.652244   | 212.0         | 352.2         | 515.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 18  | 23     | 1141.1 | 0.675502   | 219.5         | 364.8         | 533.6         |                    | -                          | -                          | -                          |
| 2020 | 2     | 18  | 24     | 1081   | 0.668731   | 217.3         | 361.1         | 528.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 1      | 1059.3 | 0.681332   | 221.4         | 367.9         | 538.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 2      | 998.9  | 0.654551   | 212.7         | 353.5         | 517.1         |                    | -                          | -                          | 8.20                       |
| 2020 | 2     | 19  | 3      | 990.8  | 0.690683   | 224.5         | 373.0         | 545.6         |                    | -                          | -                          | 44.84                      |
| 2020 | 2     | 19  | 4      | 986.8  | 0.68288    | 221.9         | 368.8         | 539.5         |                    | -                          | -                          | 42.67                      |
| 2020 | 2     | 19  | 5      | 995.6  | 0.617382   | 200.6         | 333.4         | 487.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 6      | 1058.3 | 0.666152   | 216.5         | 359.7         | 526.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 7      | 1138   | 0.596352   | 193.8         | 322.0         | 471.1         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 8      | 1218.5 | 0.591954   | 192.4         | 319.7         | 467.6         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 9      | 1376.4 | 0.588438   | 191.2         | 317.8         | 464.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 10     | 1438.7 | 0.533247   | 173.3         | 288.0         | 421.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 11     | 1353.1 | 0.532099   | 172.9         | 287.3         | 420.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 12     | 1331.9 | 0.554165   | 180.1         | 299.2         | 437.8         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 13     | 1343.9 | 0.521604   | 169.5         | 281.7         | 412.1         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 14     | 1318.8 | 0.533834   | 173.5         | 288.3         | 421.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 15     | 1315.4 | 0.558944   | 181.7         | 301.8         | 441.6         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 16     | 1386.1 | 0.542864   | 176.4         | 293.1         | 428.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 17     | 1372.5 | 0.41954    | 136.4         | 226.6         | 331.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 18     | 1324.7 | 0.460672   | 149.7         | 248.8         | 363.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 19     | 1297.9 | 0.514472   | 167.2         | 277.8         | 406.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 20     | 1287.2 | 0.505406   | 164.3         | 272.9         | 399.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 21     | 1302.9 | 0.552123   | 179.4         | 298.1         | 436.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 22     | 1187.5 | 0.620238   | 201.6         | 334.9         | 490.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 23     | 1112.2 | 0.61442    | 199.7         | 331.8         | 485.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 19  | 24     | 1074.4 | 0.588143   | 191.1         | 317.6         | 464.6         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 1      | 1044.2 | 0.545867   | 177.4         | 294.8         | 431.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 2      | 996.2  | 0.576887   | 187.5         | 311.5         | 455.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 3      | 968.7  | 0.549069   | 178.4         | 296.5         | 433.8         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 4      | 984.3  | 0.561242   | 182.4         | 303.1         | 443.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 5      | 959.5  | 0.586604   | 190.6         | 316.8         | 463.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 6      | 1020.4 | 0.489873   | 159.2         | 264.5         | 387.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 7      | 1137   | 0.555721   | 180.6         | 300.1         | 439.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 8      | 1253.9 | 0.447504   | 145.4         | 241.7         | 353.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 9      | 1333.6 | 0.335856   | 109.2         | 181.4         | 265.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 10     | 1366.7 | 0.255829   | 83.1          | 138.1         | 202.1         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 11     | 1340.8 | 0.212965   | 69.2          | 115.0         | 168.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 12     | 1326.5 | 0.167928   | 54.6          | 90.7          | 132.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 13     | 1323   | 0.179553   | 58.4          | 97.0          | 141.8         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 14     | 1249.4 | 0.257001   | 83.5          | 138.8         | 203.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 15     | 1244.6 | 0.41571    | 135.1         | 224.5         | 328.4         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 2     | 20  | 16     | 1251.2 | 0.438227   | 142.4         | 236.6         | 346.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 17     | 1300.2 | 0.467646   | 152.0         | 252.5         | 369.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 18     | 1312.1 | 0.383101   | 124.5         | 206.9         | 302.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 19     | 1370.2 | 0.395276   | 128.5         | 213.4         | 312.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 20     | 1343.4 | 0.477967   | 155.3         | 258.1         | 377.6         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 21     | 1281.1 | 0.493057   | 160.2         | 266.3         | 389.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 22     | 1184   | 0.623388   | 202.6         | 336.6         | 492.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 23     | 1095.8 | 0.622709   | 202.4         | 336.3         | 491.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 20  | 24     | 1066.1 | 0.629512   | 204.6         | 339.9         | 497.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 1      | 1021.9 | 0.643049   | 209.0         | 347.2         | 508.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 2      | 976.7  | 0.621709   | 202.1         | 335.7         | 491.2         |                    | -                          | -                          | 4.45                       |
| 2020 | 2     | 21  | 3      | 952.2  | 0.530891   | 172.5         | 286.7         | 419.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 4      | 946.5  | 0.523      | 170.0         | 282.4         | 413.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 5      | 956.9  | 0.546179   | 177.5         | 294.9         | 431.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 6      | 990.8  | 0.478755   | 155.6         | 258.5         | 378.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 7      | 1102.7 | 0.467363   | 151.9         | 252.4         | 369.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 8      | 1231.5 | 0.381136   | 123.9         | 205.8         | 301.1         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 9      | 1289.1 | 0.368425   | 119.7         | 198.9         | 291.1         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 10     | 1333.3 | 0.29487    | 95.8          | 159.2         | 232.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 11     | 1338   | 0.231616   | 75.3          | 125.1         | 183.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 12     | 1296.9 | 0.206539   | 67.1          | 111.5         | 163.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 13     | 1260.7 | 0.164464   | 53.5          | 88.8          | 129.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 14     | 1237.3 | 0.164546   | 53.5          | 88.9          | 130.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 15     | 1199.2 | 0.184047   | 59.8          | 99.4          | 145.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 16     | 1231.5 | 0.135772   | 44.1          | 73.3          | 107.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 17     | 1269.9 | 0.069414   | 22.6          | 37.5          | 54.8          |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 18     | 1382.7 | 0.110526   | 35.9          | 59.7          | 87.3          |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 19     | 1357.7 | 0.181947   | 59.1          | 98.3          | 143.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 20     | 1287.9 | 0.197927   | 64.3          | 106.9         | 156.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 21     | 1196.5 | 0.303647   | 98.7          | 164.0         | 239.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 22     | 1150.7 | 0.269816   | 87.7          | 145.7         | 213.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 23     | 1104.1 | 0.31002    | 100.8         | 167.4         | 244.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 21  | 24     | 1072.2 | 0.440343   | 143.1         | 237.8         | 347.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 1      | 1034   | 0.538548   | 175.0         | 290.8         | 425.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 2      | 967.8  | 0.568882   | 184.9         | 307.2         | 449.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 3      | 945.2  | 0.56902    | 184.9         | 307.3         | 449.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 4      | 929.9  | 0.625642   | 203.3         | 337.8         | 494.3         |                    | -                          | -                          | 54.36                      |
| 2020 | 2     | 22  | 5      | 941.4  | 0.625451   | 203.3         | 337.7         | 494.1         |                    | -                          | -                          | 42.71                      |
| 2020 | 2     | 22  | 6      | 960.6  | 0.568821   | 184.9         | 307.2         | 449.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 7      | 1002.9 | 0.620281   | 201.6         | 335.0         | 490.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 8      | 1089.6 | 0.585248   | 190.2         | 316.0         | 462.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 9      | 1184.9 | 0.512081   | 166.4         | 276.5         | 404.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 10     | 1238.6 | 0.479877   | 156.0         | 259.1         | 379.1         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 11     | 1229.5 | 0.423717   | 137.7         | 228.8         | 334.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 12     | 1151.4 | 0.40585    | 131.9         | 219.2         | 320.6         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 2     | 22  | 13     | 1164.6 | 0.421702   | 137.1         | 227.7         | 333.1         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 14     | 1135.4 | 0.357397   | 116.2         | 193.0         | 282.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 15     | 1110   | 0.387493   | 125.9         | 209.2         | 306.1         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 16     | 1131.6 | 0.283905   | 92.3          | 153.3         | 224.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 17     | 1229.6 | 0.160618   | 52.2          | 86.7          | 126.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 18     | 1252.6 | 0.195534   | 63.5          | 105.6         | 154.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 19     | 1230   | 0.225767   | 73.4          | 121.9         | 178.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 20     | 1293.4 | 0.186627   | 60.7          | 100.8         | 147.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 21     | 1237.4 | 0.225583   | 73.3          | 121.8         | 178.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 22     | 1167.1 | 0.256678   | 83.4          | 138.6         | 202.8         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 23     | 1102.5 | 0.33496    | 108.9         | 180.9         | 264.6         |                    | -                          | -                          | -                          |
| 2020 | 2     | 22  | 24     | 1028.1 | 0.235252   | 76.5          | 127.0         | 185.8         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 1      | 1001.5 | 0.262542   | 85.3          | 141.8         | 207.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 2      | 966.5  | 0.302191   | 98.2          | 163.2         | 238.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 3      | 956.9  | 0.358224   | 116.4         | 193.4         | 283.0         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 4      | 933.1  | 0.281259   | 91.4          | 151.9         | 222.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 5      | 940.1  | 0.247439   | 80.4          | 133.6         | 195.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 6      | 966.5  | 0.264656   | 86.0          | 142.9         | 209.1         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 7      | 982.9  | 0.323396   | 105.1         | 174.6         | 255.5         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 8      | 1026.7 | 0.388497   | 126.3         | 209.8         | 306.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 9      | 1129.4 | 0.481412   | 156.5         | 260.0         | 380.3         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 10     | 1160.8 | 0.445757   | 144.9         | 240.7         | 352.1         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 11     | 1163.1 | 0.601418   | 195.5         | 324.8         | 475.1         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 12     | 1196.1 | 0.621442   | 202.0         | 335.6         | 490.9         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 13     | 1179.3 | 0.506563   | 164.6         | 273.5         | 400.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 14     | 1114.2 | 0.486906   | 158.2         | 262.9         | 384.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 15     | 1100.5 | 0.680281   | 221.1         | 367.4         | 537.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 16     | 1109.6 | 0.554662   | 180.3         | 299.5         | 438.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 17     | 1239.2 | 0.535913   | 174.2         | 289.4         | 423.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 18     | 1299.9 | 0.774965   | 251.9         | 418.5         | 612.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 19     | 1291.7 | 0.768637   | 249.8         | 415.1         | 607.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 20     | 1252   | 0.69706    | 226.5         | 376.4         | 550.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 21     | 1275.1 | 0.619177   | 201.2         | 334.4         | 489.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 22     | 1193.7 | 0.655934   | 213.2         | 354.2         | 518.2         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 23     | 1119.4 | 0.697941   | 226.8         | 376.9         | 551.4         |                    | -                          | -                          | -                          |
| 2020 | 2     | 23  | 24     | 1025.5 | 0.694167   | 225.6         | 374.9         | 548.4         |                    | -                          | -                          | 12.89                      |
| 2020 | 2     | 24  | 1      | 966.5  | 0.776624   | 252.4         | 419.4         | 613.5         |                    | -                          | -                          | 137.03                     |
| 2020 | 2     | 24  | 2      | 951.1  | 0.866499   | 281.6         | 467.9         | 684.5         |                    | -                          | 6.81                       | 223.43                     |
| 2020 | 2     | 24  | 3      | 947.7  | 0.923404   | 300.1         | 498.6         | 729.5         |                    | -                          | 40.94                      | 271.79                     |
| 2020 | 2     | 24  | 4      | 927.4  | 0.91704    | 298.0         | 495.2         | 724.5         |                    | -                          | 57.80                      | 287.06                     |
| 2020 | 2     | 24  | 5      | 955.4  | 0.919048   | 298.7         | 496.3         | 726.0         |                    | -                          | 30.89                      | 260.65                     |
| 2020 | 2     | 24  | 6      | 1009.8 | 0.832691   | 270.6         | 449.7         | 657.8         |                    | -                          | -                          | 138.03                     |
| 2020 | 2     | 24  | 7      | 1125.5 | 0.762962   | 248.0         | 412.0         | 602.7         |                    | -                          | -                          | -                          |
| 2020 | 2     | 24  | 8      | 1261.6 | 0.730109   | 237.3         | 394.3         | 576.8         |                    | -                          | -                          | -                          |
| 2020 | 2     | 24  | 9      | 1339   | 0.729131   | 237.0         | 393.7         | 576.0         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 2     | 24  | 10     | 1354.3 | 0.66554       | 216.3            | 359.4            | 525.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 24  | 11     | 1328.3 | 0.499886      | 162.5            | 269.9            | 394.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 24  | 12     | 1276.4 | 0.447468      | 145.4            | 241.6            | 353.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 24  | 13     | 1306.7 | 0.321354      | 104.4            | 173.5            | 253.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 24  | 14     | 1283.3 | 0.317709      | 103.3            | 171.6            | 251.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 24  | 15     | 1264.2 | 0.213467      | 69.4             | 115.3            | 168.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 24  | 16     | 1344.8 | 0.081846      | 26.6             | 44.2             | 64.7             |                       | -                             | -                             | -                             |
| 2020 | 2     | 24  | 17     | 1427.6 | 0.073086      | 23.8             | 39.5             | 57.7             |                       | -                             | -                             | -                             |
| 2020 | 2     | 24  | 18     | 1428.9 | 0.050788      | 16.5             | 27.4             | 40.1             |                       | -                             | -                             | -                             |
| 2020 | 2     | 24  | 19     | 1409   | 0.052345      | 17.0             | 28.3             | 41.4             |                       | -                             | -                             | -                             |
| 2020 | 2     | 24  | 20     | 1378   | 0.070571      | 22.9             | 38.1             | 55.8             |                       | -                             | -                             | -                             |
| 2020 | 2     | 24  | 21     | 1344.2 | 0.149709      | 48.7             | 80.8             | 118.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 24  | 22     | 1262.5 | 0.189867      | 61.7             | 102.5            | 150.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 24  | 23     | 1160.8 | 0.357397      | 116.2            | 193.0            | 282.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 24  | 24     | 1154.7 | 0.466814      | 151.7            | 252.1            | 368.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 1      | 1072.9 | 0.542733      | 176.4            | 293.1            | 428.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 2      | 1039.1 | 0.631596      | 205.3            | 341.1            | 499.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 3      | 1031   | 0.750934      | 244.1            | 405.5            | 593.2            |                       | -                             | -                             | 52.24                         |
| 2020 | 2     | 25  | 4      | 1025.2 | 0.779287      | 253.3            | 420.8            | 615.6            |                       | -                             | -                             | 80.44                         |
| 2020 | 2     | 25  | 5      | 1014.5 | 0.72439       | 235.4            | 391.2            | 572.3            |                       | -                             | -                             | 47.77                         |
| 2020 | 2     | 25  | 6      | 1072.6 | 0.585017      | 190.1            | 315.9            | 462.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 7      | 1168.9 | 0.512674      | 166.6            | 276.8            | 405.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 8      | 1300   | 0.692558      | 225.1            | 374.0            | 547.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 9      | 1382.4 | 0.707625      | 230.0            | 382.1            | 559.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 10     | 1389.1 | 0.708708      | 230.3            | 382.7            | 559.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 11     | 1331.4 | 0.764448      | 248.4            | 412.8            | 603.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 12     | 1384.5 | 0.806698      | 262.2            | 435.6            | 637.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 13     | 1327.3 | 0.771479      | 250.7            | 416.6            | 609.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 14     | 1354.1 | 0.770446      | 250.4            | 416.0            | 608.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 15     | 1289.9 | 0.799572      | 259.9            | 431.8            | 631.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 16     | 1325.2 | 0.913985      | 297.0            | 493.6            | 722.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 17     | 1314.5 | 0.923558      | 300.2            | 498.7            | 729.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 18     | 1402.2 | 0.888413      | 288.7            | 479.7            | 701.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 19     | 1469.1 | 0.908426      | 295.2            | 490.5            | 717.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 20     | 1388.3 | 0.865631      | 281.3            | 467.4            | 683.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 21     | 1322.2 | 0.89514       | 290.9            | 483.4            | 707.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 22     | 1247.7 | 0.878801      | 285.6            | 474.6            | 694.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 25  | 23     | 1175   | 0.895447      | 291.0            | 483.5            | 707.4            |                       | -                             | -                             | 22.40                         |
| 2020 | 2     | 25  | 24     | 1134.3 | 0.803624      | 261.2            | 434.0            | 634.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 1      | 1077.7 | 0.836814      | 272.0            | 451.9            | 661.1            |                       | -                             | -                             | 73.38                         |
| 2020 | 2     | 26  | 2      | 1035.5 | 0.824441      | 267.9            | 445.2            | 651.3            |                       | -                             | -                             | 105.81                        |
| 2020 | 2     | 26  | 3      | 1014.5 | 0.817973      | 265.8            | 441.7            | 646.2            |                       | -                             | -                             | 121.70                        |
| 2020 | 2     | 26  | 4      | 1009.8 | 0.750808      | 244.0            | 405.4            | 593.1            |                       | -                             | -                             | 73.34                         |
| 2020 | 2     | 26  | 5      | 1026.7 | 0.909453      | 295.6            | 491.1            | 718.5            |                       | -                             | -                             | 181.77                        |
| 2020 | 2     | 26  | 6      | 1052.2 | 0.875113      | 284.4            | 472.6            | 691.3            |                       | -                             | -                             | 129.14                        |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 2     | 26  | 7      | 1178.5 | 0.845146      | 274.7            | 456.4            | 667.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 8      | 1308.4 | 0.864596      | 281.0            | 466.9            | 683.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 9      | 1398   | 0.876971      | 285.0            | 473.6            | 692.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 10     | 1400   | 0.916308      | 297.8            | 494.8            | 723.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 11     | 1309.7 | 0.865116      | 281.2            | 467.2            | 683.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 12     | 1272.3 | 0.850776      | 276.5            | 459.4            | 672.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 13     | 1260.7 | 0.825274      | 268.2            | 445.6            | 652.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 14     | 1206.2 | 0.799011      | 259.7            | 431.5            | 631.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 15     | 1230.2 | 0.76025       | 247.1            | 410.5            | 600.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 16     | 1265.1 | 0.787432      | 255.9            | 425.2            | 622.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 17     | 1335.4 | 0.734068      | 238.6            | 396.4            | 579.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 18     | 1361.9 | 0.710664      | 231.0            | 383.8            | 561.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 19     | 1439.6 | 0.720315      | 234.1            | 389.0            | 569.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 20     | 1468.6 | 0.801205      | 260.4            | 432.7            | 633.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 21     | 1453.7 | 0.738379      | 240.0            | 398.7            | 583.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 22     | 1347.9 | 0.79597       | 258.7            | 429.8            | 628.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 23     | 1234.8 | 0.79308       | 257.8            | 428.3            | 626.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 26  | 24     | 1157.4 | 0.803125      | 261.0            | 433.7            | 634.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 1      | 1073.5 | 0.59183       | 192.3            | 319.6            | 467.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 2      | 1040   | 0.634079      | 206.1            | 342.4            | 500.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 3      | 1019.1 | 0.657849      | 213.8            | 355.2            | 519.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 4      | 1024   | 0.626567      | 203.6            | 338.3            | 495.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 5      | 1025.5 | 0.600773      | 195.3            | 324.4            | 474.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 6      | 1077.6 | 0.485808      | 157.9            | 262.3            | 383.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 7      | 1176.7 | 0.47016       | 152.8            | 253.9            | 371.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 8      | 1317.8 | 0.345039      | 112.1            | 186.3            | 272.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 9      | 1436.1 | 0.295925      | 96.2             | 159.8            | 233.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 10     | 1497.8 | 0.263498      | 85.6             | 142.3            | 208.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 11     | 1362.8 | 0.218129      | 70.9             | 117.8            | 172.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 12     | 1310.8 | 0.177633      | 57.7             | 95.9             | 140.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 13     | 1308   | 0.155859      | 50.7             | 84.2             | 123.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 14     | 1255.1 | 0.119096      | 38.7             | 64.3             | 94.1             |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 15     | 1262.9 | 0.079024      | 25.7             | 42.7             | 62.4             |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 16     | 1254.7 | 0.061763      | 20.1             | 33.4             | 48.8             |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 17     | 1360.1 | 0.045004      | 14.6             | 24.3             | 35.6             |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 18     | 1423.1 | 0.043502      | 14.1             | 23.5             | 34.4             |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 19     | 1438.2 | 0.057902      | 18.8             | 31.3             | 45.7             |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 20     | 1440.8 | 0.112301      | 36.5             | 60.6             | 88.7             |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 21     | 1369.3 | 0.19061       | 61.9             | 102.9            | 150.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 22     | 1253.8 | 0.203848      | 66.3             | 110.1            | 161.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 23     | 1172.2 | 0.202733      | 65.9             | 109.5            | 160.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 27  | 24     | 1140.8 | 0.21262       | 69.1             | 114.8            | 168.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 1      | 1086.7 | 0.256589      | 83.4             | 138.6            | 202.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 2      | 1044.2 | 0.20566       | 66.8             | 111.1            | 162.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 3      | 1010.4 | 0.26477       | 86.1             | 143.0            | 209.2            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 2     | 28  | 4      | 1030.5 | 0.217559      | 70.7             | 117.5            | 171.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 5      | 1007   | 0.195421      | 63.5             | 105.5            | 154.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 6      | 1050.9 | 0.178928      | 58.2             | 96.6             | 141.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 7      | 1149   | 0.187236      | 60.9             | 101.1            | 147.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 8      | 1264.7 | 0.134678      | 43.8             | 72.7             | 106.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 9      | 1350.3 | 0.090595      | 29.4             | 48.9             | 71.6             |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 10     | 1361.1 | 0.154626      | 50.3             | 83.5             | 122.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 11     | 1413.3 | 0.141381      | 45.9             | 76.3             | 111.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 12     | 1397.6 | 0.176119      | 57.2             | 95.1             | 139.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 13     | 1467.2 | 0.15772       | 51.3             | 85.2             | 124.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 14     | 1427.1 | 0.154805      | 50.3             | 83.6             | 122.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 15     | 1404.9 | 0.273256      | 88.8             | 147.6            | 215.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 16     | 1452.4 | 0.202207      | 65.7             | 109.2            | 159.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 17     | 1412   | 0.18731       | 60.9             | 101.1            | 148.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 18     | 1493.6 | 0.156515      | 50.9             | 84.5             | 123.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 19     | 1354.7 | 0.179046      | 58.2             | 96.7             | 141.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 20     | 1368.8 | 0.158986      | 51.7             | 85.9             | 125.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 21     | 1261.4 | 0.179564      | 58.4             | 97.0             | 141.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 22     | 1228.5 | 0.154201      | 50.1             | 83.3             | 121.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 23     | 1151.3 | 0.182571      | 59.3             | 98.6             | 144.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 28  | 24     | 1141.1 | 0.161391      | 52.5             | 87.2             | 127.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 1      | 1106   | 0.256589      | 83.4             | 138.6            | 202.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 2      | 1031.9 | 0.20566       | 66.8             | 111.1            | 162.5            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 3      | 996    | 0.26477       | 86.1             | 143.0            | 209.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 4      | 992.6  | 0.217559      | 70.7             | 117.5            | 171.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 5      | 981.1  | 0.195421      | 63.5             | 105.5            | 154.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 6      | 996.8  | 0.178928      | 58.2             | 96.6             | 141.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 7      | 1026.2 | 0.187236      | 60.9             | 101.1            | 147.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 8      | 1109.6 | 0.134678      | 43.8             | 72.7             | 106.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 9      | 1144   | 0.090595      | 29.4             | 48.9             | 71.6             |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 10     | 1246.6 | 0.154626      | 50.3             | 83.5             | 122.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 11     | 1262.7 | 0.141381      | 45.9             | 76.3             | 111.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 12     | 1264.5 | 0.176119      | 57.2             | 95.1             | 139.1            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 13     | 1213.1 | 0.15772       | 51.3             | 85.2             | 124.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 14     | 1167.7 | 0.154805      | 50.3             | 83.6             | 122.3            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 15     | 1148.3 | 0.273256      | 88.8             | 147.6            | 215.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 16     | 1173.8 | 0.202207      | 65.7             | 109.2            | 159.7            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 17     | 1193.1 | 0.18731       | 60.9             | 101.1            | 148.0            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 18     | 1288.9 | 0.156515      | 50.9             | 84.5             | 123.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 19     | 1252.9 | 0.179046      | 58.2             | 96.7             | 141.4            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 20     | 1217.5 | 0.158986      | 51.7             | 85.9             | 125.6            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 21     | 1170.5 | 0.179564      | 58.4             | 97.0             | 141.9            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 22     | 1115   | 0.154201      | 50.1             | 83.3             | 121.8            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 23     | 1076.5 | 0.182571      | 59.3             | 98.6             | 144.2            |                       | -                             | -                             | -                             |
| 2020 | 2     | 29  | 24     | 1034.6 | 0.161391      | 52.5             | 87.2             | 127.5            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 3     | 1   | 1      | 982.9  | 0.179715      | 58.4             | 97.0             | 142.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 2      | 950.8  | 0.264003      | 85.8             | 142.6            | 208.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 3      | 958.3  | 0.28231       | 91.8             | 152.4            | 223.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 4      | 960.1  | 0.242616      | 78.9             | 131.0            | 191.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 5      | 974.9  | 0.323334      | 105.1            | 174.6            | 255.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 6      | 982.7  | 0.375608      | 122.1            | 202.8            | 296.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 7      | 1045.9 | 0.496823      | 161.5            | 268.3            | 392.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 8      | 1132.1 | 0.490569      | 159.4            | 264.9            | 387.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 9      | 1214.8 | 0.461745      | 150.1            | 249.3            | 364.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 10     | 1292.4 | 0.486551      | 158.1            | 262.7            | 384.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 11     | 1367.3 | 0.549508      | 178.6            | 296.7            | 434.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 12     | 1391.8 | 0.545726      | 177.4            | 294.7            | 431.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 13     | 1375.7 | 0.477376      | 155.1            | 257.8            | 377.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 14     | 1335.9 | 0.47773       | 155.3            | 258.0            | 377.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 15     | 1244.8 | 0.493065      | 160.2            | 266.3            | 389.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 16     | 1264   | 0.38665       | 125.7            | 208.8            | 305.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 17     | 1375.2 | 0.380231      | 123.6            | 205.3            | 300.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 18     | 1306.2 | 0.363549      | 118.2            | 196.3            | 287.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 19     | 1271.1 | 0.398478      | 129.5            | 215.2            | 314.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 20     | 1288   | 0.365398      | 118.8            | 197.3            | 288.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 21     | 1322.9 | 0.406982      | 132.3            | 219.8            | 321.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 22     | 1295.2 | 0.453377      | 147.3            | 244.8            | 358.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 23     | 1181.8 | 0.513483      | 166.9            | 277.3            | 405.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 1   | 24     | 1076.2 | 0.440004      | 143.0            | 237.6            | 347.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 1      | 1025   | 0.400504      | 130.2            | 216.3            | 316.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 2      | 1017.8 | 0.375235      | 122.0            | 202.6            | 296.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 3      | 1008   | 0.408041      | 132.6            | 220.3            | 322.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 4      | 1034.5 | 0.390286      | 126.8            | 210.8            | 308.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 5      | 1040.2 | 0.407993      | 132.6            | 220.3            | 322.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 6      | 1087.4 | 0.404783      | 131.6            | 218.6            | 319.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 7      | 1241.1 | 0.421882      | 137.1            | 227.8            | 333.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 8      | 1383.6 | 0.359938      | 117.0            | 194.4            | 284.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 9      | 1447   | 0.298828      | 97.1             | 161.4            | 236.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 10     | 1478.2 | 0.267337      | 86.9             | 144.4            | 211.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 11     | 1425.1 | 0.280268      | 91.1             | 151.3            | 221.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 12     | 1390.9 | 0.295717      | 96.1             | 159.7            | 233.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 13     | 1401.8 | 0.259103      | 84.2             | 139.9            | 204.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 14     | 1360.8 | 0.222775      | 72.4             | 120.3            | 176.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 15     | 1298.7 | 0.181599      | 59.0             | 98.1             | 143.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 16     | 1310.4 | 0.13252       | 43.1             | 71.6             | 104.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 17     | 1398.1 | 0.053011      | 17.2             | 28.6             | 41.9             |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 18     | 1461.5 | 0.042258      | 13.7             | 22.8             | 33.4             |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 19     | 1468.5 | 0.082597      | 26.8             | 44.6             | 65.3             |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 20     | 1472.5 | 0.07675       | 24.9             | 41.4             | 60.6             |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 21     | 1404.2 | 0.028526      | 9.3              | 15.4             | 22.5             |                       | -                             | -                             | -                             |



| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 3     | 2   | 22     | 1324.5 | 0.035985      | 11.7             | 19.4             | 28.4             |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 23     | 1228   | 0.029249      | 9.5              | 15.8             | 23.1             |                       | -                             | -                             | -                             |
| 2020 | 3     | 2   | 24     | 1200.4 | 0.035468      | 11.5             | 19.2             | 28.0             |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 1      | 1146.7 | 0.060736      | 19.7             | 32.8             | 48.0             |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 2      | 1061   | 0.095054      | 30.9             | 51.3             | 75.1             |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 3      | 1047.5 | 0.098373      | 32.0             | 53.1             | 77.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 4      | 1057.7 | 0.107752      | 35.0             | 58.2             | 85.1             |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 5      | 1048.4 | 0.143281      | 46.6             | 77.4             | 113.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 6      | 1140.6 | 0.181209      | 58.9             | 97.9             | 143.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 7      | 1278.1 | 0.289999      | 94.2             | 156.6            | 229.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 8      | 1416.1 | 0.314796      | 102.3            | 170.0            | 248.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 9      | 1528.5 | 0.469873      | 152.7            | 253.7            | 371.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 10     | 1534.7 | 0.448916      | 145.9            | 242.4            | 354.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 11     | 1562.5 | 0.693035      | 225.2            | 374.2            | 547.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 12     | 1545   | 0.74902       | 243.4            | 404.5            | 591.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 13     | 1491.6 | 0.821401      | 267.0            | 443.6            | 648.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 14     | 1496.8 | 0.846163      | 275.0            | 456.9            | 668.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 15     | 1461.6 | 0.883537      | 287.1            | 477.1            | 698.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 16     | 1508.8 | 0.897344      | 291.6            | 484.6            | 708.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 17     | 1626.4 | 0.906908      | 294.7            | 489.7            | 716.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 18     | 1646.7 | 0.909229      | 295.5            | 491.0            | 718.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 19     | 1601   | 0.93559       | 304.1            | 505.2            | 739.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 20     | 1603.6 | 0.934359      | 303.7            | 504.6            | 738.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 21     | 1535.9 | 0.927796      | 301.5            | 501.0            | 733.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 22     | 1450.1 | 0.911854      | 296.4            | 492.4            | 720.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 23     | 1346.3 | 0.807702      | 262.5            | 436.2            | 638.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 3   | 24     | 1310.6 | 0.788062      | 256.1            | 425.6            | 622.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 1      | 1236.9 | 0.648695      | 210.8            | 350.3            | 512.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 2      | 1204.1 | 0.410114      | 133.3            | 221.5            | 324.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 3      | 1158.9 | 0.438966      | 142.7            | 237.0            | 346.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 4      | 1128.4 | 0.581371      | 188.9            | 313.9            | 459.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 5      | 1141.1 | 0.607727      | 197.5            | 328.2            | 480.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 6      | 1206   | 0.548526      | 178.3            | 296.2            | 433.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 7      | 1342.4 | 0.621505      | 202.0            | 335.6            | 491.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 8      | 1470.5 | 0.482354      | 156.8            | 260.5            | 381.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 9      | 1577.7 | 0.472806      | 153.7            | 255.3            | 373.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 10     | 1568.8 | 0.341327      | 110.9            | 184.3            | 269.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 11     | 1520.8 | 0.405219      | 131.7            | 218.8            | 320.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 12     | 1548.2 | 0.368427      | 119.7            | 199.0            | 291.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 13     | 1523.1 | 0.276344      | 89.8             | 149.2            | 218.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 14     | 1501.9 | 0.23696       | 77.0             | 128.0            | 187.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 15     | 1452.1 | 0.171889      | 55.9             | 92.8             | 135.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 16     | 1480.8 | 0.12221       | 39.7             | 66.0             | 96.5             |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 17     | 1549.8 | 0.051561      | 16.8             | 27.8             | 40.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 18     | 1563.5 | 0.087945      | 28.6             | 47.5             | 69.5             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 3     | 4   | 19     | 1578.2 | 0.046204      | 15.0             | 25.0             | 36.5             |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 20     | 1607.4 | 0.010516      | 3.4              | 5.7              | 8.3              |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 21     | 1522.6 | 0.013191      | 4.3              | 7.1              | 10.4             |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 22     | 1478.2 | 0.021112      | 6.9              | 11.4             | 16.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 23     | 1358.4 | 0.03213       | 10.4             | 17.4             | 25.4             |                       | -                             | -                             | -                             |
| 2020 | 3     | 4   | 24     | 1343   | 0.051519      | 16.7             | 27.8             | 40.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 1      | 1238.5 | 0.04554       | 14.8             | 24.6             | 36.0             |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 2      | 1147.9 | 0.051969      | 16.9             | 28.1             | 41.1             |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 3      | 1132.8 | 0.041971      | 13.6             | 22.7             | 33.2             |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 4      | 1130.4 | 0.04755       | 15.5             | 25.7             | 37.6             |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 5      | 1125.9 | 0.069959      | 22.7             | 37.8             | 55.3             |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 6      | 1205.6 | 0.085408      | 27.8             | 46.1             | 67.5             |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 7      | 1358.7 | 0.108659      | 35.3             | 58.7             | 85.8             |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 8      | 1467.4 | 0.126562      | 41.1             | 68.3             | 100.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 9      | 1554   | 0.217591      | 70.7             | 117.5            | 171.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 10     | 1613.6 | 0.223865      | 72.8             | 120.9            | 176.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 11     | 1579.9 | 0.217044      | 70.5             | 117.2            | 171.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 12     | 1541.5 | 0.252313      | 82.0             | 136.2            | 199.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 13     | 1575   | 0.28783       | 93.5             | 155.4            | 227.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 14     | 1535.4 | 0.363969      | 118.3            | 196.5            | 287.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 15     | 1475.1 | 0.346975      | 112.8            | 187.4            | 274.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 16     | 1573   | 0.272689      | 88.6             | 147.3            | 215.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 17     | 1609.8 | 0.231434      | 75.2             | 125.0            | 182.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 18     | 1641   | 0.248919      | 80.9             | 134.4            | 196.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 19     | 1619.4 | 0.209165      | 68.0             | 112.9            | 165.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 20     | 1638.6 | 0.222246      | 72.2             | 120.0            | 175.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 21     | 1539.7 | 0.139914      | 45.5             | 75.6             | 110.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 22     | 1518.9 | 0.118389      | 38.5             | 63.9             | 93.5             |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 23     | 1400.6 | 0.103301      | 33.6             | 55.8             | 81.6             |                       | -                             | -                             | -                             |
| 2020 | 3     | 5   | 24     | 1345.8 | 0.118098      | 38.4             | 63.8             | 93.3             |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 1      | 1244.9 | 0.067571      | 22.0             | 36.5             | 53.4             |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 2      | 1178.7 | 0.039742      | 12.9             | 21.5             | 31.4             |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 3      | 1159.7 | 0.043916      | 14.3             | 23.7             | 34.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 4      | 1154.2 | 0.066788      | 21.7             | 36.1             | 52.8             |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 5      | 1172.2 | 0.102895      | 33.4             | 55.6             | 81.3             |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 6      | 1212.4 | 0.075336      | 24.5             | 40.7             | 59.5             |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 7      | 1349.5 | 0.108422      | 35.2             | 58.5             | 85.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 8      | 1505.6 | 0.12097       | 39.3             | 65.3             | 95.6             |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 9      | 1662.8 | 0.144424      | 46.9             | 78.0             | 114.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 10     | 1633.5 | 0.233729      | 76.0             | 126.2            | 184.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 11     | 1637.4 | 0.309242      | 100.5            | 167.0            | 244.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 12     | 1599.9 | 0.454142      | 147.6            | 245.2            | 358.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 13     | 1594   | 0.483539      | 157.2            | 261.1            | 382.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 14     | 1582.3 | 0.498144      | 161.9            | 269.0            | 393.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 6   | 15     | 1590.4 | 0.579109      | 188.2            | 312.7            | 457.5            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 3     | 6   | 16     | 1593.2 | 0.678032   | 220.4         | 366.1         | 535.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 6   | 17     | 1613.1 | 0.760816   | 247.3         | 410.8         | 601.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 6   | 18     | 1596.6 | 0.687853   | 223.6         | 371.4         | 543.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 6   | 19     | 1609.5 | 0.65593    | 213.2         | 354.2         | 518.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 6   | 20     | 1621.1 | 0.650561   | 211.4         | 351.3         | 513.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 6   | 21     | 1510   | 0.621391   | 202.0         | 335.6         | 490.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 6   | 22     | 1480.4 | 0.601987   | 195.6         | 325.1         | 475.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 6   | 23     | 1367.5 | 0.565584   | 183.8         | 305.4         | 446.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 6   | 24     | 1351.7 | 0.487028   | 158.3         | 263.0         | 384.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 1      | 1342.7 | 0.502486   | 163.3         | 271.3         | 397.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 2      | 1270.3 | 0.386135   | 125.5         | 208.5         | 305.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 3      | 1246.5 | 0.390084   | 126.8         | 210.6         | 308.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 4      | 1229   | 0.408642   | 132.8         | 220.7         | 322.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 5      | 1223.5 | 0.319858   | 104.0         | 172.7         | 252.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 6      | 1265.1 | 0.25249    | 82.1          | 136.3         | 199.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 7      | 1329   | 0.274824   | 89.3          | 148.4         | 217.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 8      | 1366.4 | 0.235046   | 76.4          | 126.9         | 185.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 9      | 1439.3 | 0.194174   | 63.1          | 104.9         | 153.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 10     | 1470.4 | 0.131531   | 42.7          | 71.0          | 103.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 11     | 1452.8 | 0.153261   | 49.8          | 82.8          | 121.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 12     | 1425.2 | 0.297292   | 96.6          | 160.5         | 234.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 13     | 1314.7 | 0.372596   | 121.1         | 201.2         | 294.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 14     | 1279.2 | 0.435181   | 141.4         | 235.0         | 343.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 15     | 1235.2 | 0.398118   | 129.4         | 215.0         | 314.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 16     | 1174.7 | 0.515468   | 167.5         | 278.4         | 407.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 17     | 1203.1 | 0.582611   | 189.3         | 314.6         | 460.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 18     | 1308.4 | 0.680073   | 221.0         | 367.2         | 537.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 19     | 1426.6 | 0.79172    | 257.3         | 427.5         | 625.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 20     | 1458.8 | 0.827981   | 269.1         | 447.1         | 654.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 21     | 1448.3 | 0.824974   | 268.1         | 445.5         | 651.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 22     | 1408.7 | 0.809119   | 263.0         | 436.9         | 639.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 23     | 1320.5 | 0.794042   | 258.1         | 428.8         | 627.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 7   | 24     | 1212   | 0.796952   | 259.0         | 430.4         | 629.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 1      | 1141.6 | 0.787981   | 256.1         | 425.5         | 622.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 2      | 1088.4 | 0.785406   | 255.3         | 424.1         | 620.5         |                    | -                          | -                          | 22.07                      |
| 2020 | 3     | 8   | 3      | 1108.3 | 0.725937   | 235.9         | 392.0         | 573.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 4      | 1145   | 0.714778   | 232.3         | 386.0         | 564.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 5      | 1137.3 | 0.753887   | 245.0         | 407.1         | 595.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 6      | 1195.5 | 0.745319   | 242.2         | 402.5         | 588.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 7      | 1240.3 | 0.776617   | 252.4         | 419.4         | 613.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 8      | 1263.1 | 0.788684   | 256.3         | 425.9         | 623.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 9      | 1322.8 | 0.769556   | 250.1         | 415.6         | 607.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 10     | 1317   | 0.773016   | 251.2         | 417.4         | 610.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 11     | 1353.7 | 0.80265    | 260.9         | 433.4         | 634.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 12     | 1292.9 | 0.761329   | 247.4         | 411.1         | 601.4         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 3     | 8   | 13     | 1230.7 | 0.736723   | 239.4         | 397.8         | 582.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 14     | 1158.8 | 0.792407   | 257.5         | 427.9         | 626.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 15     | 1103.1 | 0.771379   | 250.7         | 416.5         | 609.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 16     | 1070.6 | 0.852677   | 277.1         | 460.4         | 673.6         |                    | -                          | -                          | 93.02                      |
| 2020 | 3     | 8   | 17     | 1162.6 | 0.920349   | 299.1         | 497.0         | 727.1         |                    | -                          | -                          | 54.48                      |
| 2020 | 3     | 8   | 18     | 1229.3 | 0.903355   | 293.6         | 487.8         | 713.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 19     | 1284.5 | 0.9001     | 292.5         | 486.1         | 711.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 20     | 1382.7 | 0.915695   | 297.6         | 494.5         | 723.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 21     | 1315.9 | 0.918975   | 298.7         | 496.2         | 726.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 22     | 1287.8 | 0.87246    | 283.5         | 471.1         | 689.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 23     | 1259.1 | 0.909442   | 295.6         | 491.1         | 718.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 8   | 24     | 1141.8 | 0.911209   | 296.1         | 492.1         | 719.9         |                    | -                          | -                          | 68.06                      |
| 2020 | 3     | 9   | 1      | 1096   | 0.902066   | 293.2         | 487.1         | 712.6         |                    | -                          | -                          | 106.63                     |
| 2020 | 3     | 9   | 2      | 1041.8 | 0.851987   | 276.9         | 460.1         | 673.1         |                    | -                          | -                          | 121.27                     |
| 2020 | 3     | 9   | 3      | 1048.6 | 0.849639   | 276.1         | 458.8         | 671.2         |                    | -                          | -                          | 112.62                     |
| 2020 | 3     | 9   | 4      | 1045.5 | 0.830546   | 269.9         | 448.5         | 656.1         |                    | -                          | -                          | 100.63                     |
| 2020 | 3     | 9   | 5      | 1064.9 | 0.840971   | 273.3         | 454.1         | 664.4         |                    | -                          | -                          | 89.47                      |
| 2020 | 3     | 9   | 6      | 1145.9 | 0.861959   | 280.1         | 465.5         | 680.9         |                    | -                          | -                          | 25.05                      |
| 2020 | 3     | 9   | 7      | 1293.2 | 0.871597   | 283.3         | 470.7         | 688.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 8      | 1453   | 0.888579   | 288.8         | 479.8         | 702.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 9      | 1505.1 | 0.875226   | 284.4         | 472.6         | 691.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 10     | 1508.5 | 0.610727   | 198.5         | 329.8         | 482.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 11     | 1402.1 | 0.653315   | 212.3         | 352.8         | 516.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 12     | 1337.8 | 0.646277   | 210.0         | 349.0         | 510.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 13     | 1336.5 | 0.638553   | 207.5         | 344.8         | 504.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 14     | 1271.8 | 0.513051   | 166.7         | 277.0         | 405.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 15     | 1205.2 | 0.44006    | 143.0         | 237.6         | 347.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 16     | 1229.9 | 0.240622   | 78.2          | 129.9         | 190.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 17     | 1267.8 | 0.241708   | 78.6          | 130.5         | 190.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 18     | 1321.4 | 0.261421   | 85.0          | 141.2         | 206.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 19     | 1325.1 | 0.218213   | 70.9          | 117.8         | 172.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 20     | 1387.2 | 0.246897   | 80.2          | 133.3         | 195.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 21     | 1328.1 | 0.270183   | 87.8          | 145.9         | 213.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 22     | 1225.3 | 0.269625   | 87.6          | 145.6         | 213.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 23     | 1171.8 | 0.275361   | 89.5          | 148.7         | 217.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 9   | 24     | 1144.8 | 0.360149   | 117.0         | 194.5         | 284.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 10  | 1      | 1122.5 | 0.364769   | 118.5         | 197.0         | 288.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 10  | 2      | 1050.2 | 0.276441   | 89.8          | 149.3         | 218.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 10  | 3      | 1019   | 0.247433   | 80.4          | 133.6         | 195.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 10  | 4      | 1034.1 | 0.169205   | 55.0          | 91.4          | 133.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 10  | 5      | 1047.7 | 0.2539     | 82.5          | 137.1         | 200.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 10  | 6      | 1137.4 | 0.227931   | 74.1          | 123.1         | 180.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 10  | 7      | 1276.5 | 0.23523    | 76.4          | 127.0         | 185.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 10  | 8      | 1427.2 | 0.214669   | 69.8          | 115.9         | 169.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 10  | 9      | 1468.7 | 0.185251   | 60.2          | 100.0         | 146.3         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 3     | 10  | 10     | 1537.3 | 0.155974      | 50.7             | 84.2             | 123.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 10  | 11     | 1442.6 | 0.139355      | 45.3             | 75.3             | 110.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 10  | 12     | 1429.7 | 0.164138      | 53.3             | 88.6             | 129.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 10  | 13     | 1464   | 0.205472      | 66.8             | 111.0            | 162.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 10  | 14     | 1424.9 | 0.273955      | 89.0             | 147.9            | 216.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 10  | 15     | 1393.7 | 0.297377      | 96.6             | 160.6            | 234.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 10  | 16     | 1411.2 | 0.257658      | 83.7             | 139.1            | 203.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 10  | 17     | 1454.9 | 0.232953      | 75.7             | 125.8            | 184.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 10  | 18     | 1427.9 | 0.209544      | 68.1             | 113.2            | 165.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 10  | 19     | 1473.6 | 0.140892      | 45.8             | 76.1             | 111.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 10  | 20     | 1500.4 | 0.120154      | 39.1             | 64.9             | 94.9             |                       | -                             | -                             | -                             |
| 2020 | 3     | 10  | 21     | 1447.3 | 0.074065      | 24.1             | 40.0             | 58.5             |                       | -                             | -                             | -                             |
| 2020 | 3     | 10  | 22     | 1442.9 | 0.082717      | 26.9             | 44.7             | 65.3             |                       | -                             | -                             | -                             |
| 2020 | 3     | 10  | 23     | 1351.3 | 0.046657      | 15.2             | 25.2             | 36.9             |                       | -                             | -                             | -                             |
| 2020 | 3     | 10  | 24     | 1336.9 | 0.046825      | 15.2             | 25.3             | 37.0             |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 1      | 1233.3 | 0.054628      | 17.8             | 29.5             | 43.2             |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 2      | 1200   | 0.056533      | 18.4             | 30.5             | 44.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 3      | 1167.1 | 0.080787      | 26.3             | 43.6             | 63.8             |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 4      | 1154.2 | 0.135606      | 44.1             | 73.2             | 107.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 5      | 1175.9 | 0.113452      | 36.9             | 61.3             | 89.6             |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 6      | 1221.8 | 0.081875      | 26.6             | 44.2             | 64.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 7      | 1375.9 | 0.10194       | 33.1             | 55.0             | 80.5             |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 8      | 1523.4 | 0.105161      | 34.2             | 56.8             | 83.1             |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 9      | 1514.8 | 0.104629      | 34.0             | 56.5             | 82.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 10     | 1514   | 0.150798      | 49.0             | 81.4             | 119.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 11     | 1458.3 | 0.276761      | 89.9             | 149.5            | 218.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 12     | 1434.5 | 0.390108      | 126.8            | 210.7            | 308.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 13     | 1405.1 | 0.378068      | 122.9            | 204.2            | 298.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 14     | 1369.6 | 0.39282       | 127.7            | 212.1            | 310.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 15     | 1264.3 | 0.428998      | 139.4            | 231.7            | 338.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 16     | 1297.4 | 0.557155      | 181.1            | 300.9            | 440.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 17     | 1337.4 | 0.55488       | 180.3            | 299.6            | 438.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 18     | 1361.1 | 0.597489      | 194.2            | 322.6            | 472.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 19     | 1441.8 | 0.618652      | 201.1            | 334.1            | 488.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 20     | 1454   | 0.596219      | 193.8            | 322.0            | 471.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 21     | 1475   | 0.56687       | 184.2            | 306.1            | 447.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 22     | 1410.2 | 0.498871      | 162.1            | 269.4            | 394.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 23     | 1300.7 | 0.505721      | 164.4            | 273.1            | 399.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 11  | 24     | 1269   | 0.487457      | 158.4            | 263.2            | 385.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 12  | 1      | 1188.2 | 0.483822      | 157.2            | 261.3            | 382.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 12  | 2      | 1121.6 | 0.497417      | 161.7            | 268.6            | 393.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 12  | 3      | 1121.6 | 0.452282      | 147.0            | 244.2            | 357.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 12  | 4      | 1131.1 | 0.323702      | 105.2            | 174.8            | 255.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 12  | 5      | 1135.9 | 0.289596      | 94.1             | 156.4            | 228.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 12  | 6      | 1214.7 | 0.304811      | 99.1             | 164.6            | 240.8            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 3     | 12  | 7      | 1349.1 | 0.287335   | 93.4          | 155.2         | 227.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 8      | 1511.3 | 0.200349   | 65.1          | 108.2         | 158.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 9      | 1589.5 | 0.114188   | 37.1          | 61.7          | 90.2          |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 10     | 1535.5 | 0.071757   | 23.3          | 38.7          | 56.7          |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 11     | 1422.1 | 0.119736   | 38.9          | 64.7          | 94.6          |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 12     | 1363.9 | 0.132935   | 43.2          | 71.8          | 105.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 13     | 1346.3 | 0.20105    | 65.3          | 108.6         | 158.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 14     | 1251.2 | 0.220084   | 71.5          | 118.8         | 173.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 15     | 1241.1 | 0.185414   | 60.3          | 100.1         | 146.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 16     | 1225   | 0.160863   | 52.3          | 86.9          | 127.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 17     | 1268.5 | 0.112906   | 36.7          | 61.0          | 89.2          |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 18     | 1300.7 | 0.070514   | 22.9          | 38.1          | 55.7          |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 19     | 1385.1 | 0.081782   | 26.6          | 44.2          | 64.6          |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 20     | 1398.6 | 0.07503    | 24.4          | 40.5          | 59.3          |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 21     | 1384.8 | 0.133318   | 43.3          | 72.0          | 105.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 22     | 1318.6 | 0.20004    | 65.0          | 108.0         | 158.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 23     | 1240.7 | 0.245578   | 79.8          | 132.6         | 194.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 12  | 24     | 1184.3 | 0.291883   | 94.9          | 157.6         | 230.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 1      | 1189   | 0.343087   | 111.5         | 185.3         | 271.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 2      | 1113   | 0.327285   | 106.4         | 176.7         | 258.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 3      | 1126   | 0.273996   | 89.0          | 148.0         | 216.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 4      | 1138.8 | 0.309345   | 100.5         | 167.0         | 244.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 5      | 1148   | 0.129653   | 42.1          | 70.0          | 102.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 6      | 1198   | 0.136883   | 44.5          | 73.9          | 108.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 7      | 1345.8 | 0.146921   | 47.7          | 79.3          | 116.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 8      | 1467.2 | 0.128409   | 41.7          | 69.3          | 101.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 9      | 1497.5 | 0.112539   | 36.6          | 60.8          | 88.9          |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 10     | 1477.6 | 0.137232   | 44.6          | 74.1          | 108.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 11     | 1392.9 | 0.083488   | 27.1          | 45.1          | 66.0          |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 12     | 1342.4 | 0.157251   | 51.1          | 84.9          | 124.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 13     | 1336   | 0.155198   | 50.4          | 83.8          | 122.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 14     | 1251.3 | 0.22467    | 73.0          | 121.3         | 177.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 15     | 1191.6 | 0.292432   | 95.0          | 157.9         | 231.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 16     | 1188.3 | 0.289227   | 94.0          | 156.2         | 228.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 17     | 1235.3 | 0.310382   | 100.9         | 167.6         | 245.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 18     | 1231.3 | 0.390606   | 126.9         | 210.9         | 308.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 19     | 1267.7 | 0.470726   | 153.0         | 254.2         | 371.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 20     | 1364.5 | 0.53053    | 172.4         | 286.5         | 419.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 21     | 1297   | 0.427566   | 139.0         | 230.9         | 337.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 22     | 1234.5 | 0.313146   | 101.8         | 169.1         | 247.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 23     | 1196.2 | 0.359879   | 117.0         | 194.3         | 284.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 13  | 24     | 1197.8 | 0.387507   | 125.9         | 209.3         | 306.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 14  | 1      | 1158.7 | 0.285492   | 92.8          | 154.2         | 225.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 14  | 2      | 1104.6 | 0.236273   | 76.8          | 127.6         | 186.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 14  | 3      | 1064   | 0.176694   | 57.4          | 95.4          | 139.6         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 3     | 14  | 4      | 1079.4 | 0.145034      | 47.1             | 78.3             | 114.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 5      | 1091.6 | 0.102445      | 33.3             | 55.3             | 80.9             |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 6      | 1137.1 | 0.194594      | 63.2             | 105.1            | 153.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 7      | 1204.6 | 0.126376      | 41.1             | 68.2             | 99.8             |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 8      | 1268.3 | 0.114445      | 37.2             | 61.8             | 90.4             |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 9      | 1345.9 | 0.105872      | 34.4             | 57.2             | 83.6             |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 10     | 1375   | 0.166329      | 54.1             | 89.8             | 131.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 11     | 1354.2 | 0.225568      | 73.3             | 121.8            | 178.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 12     | 1373.6 | 0.150672      | 49.0             | 81.4             | 119.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 13     | 1319.1 | 0.244089      | 79.3             | 131.8            | 192.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 14     | 1198.3 | 0.232774      | 75.7             | 125.7            | 183.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 15     | 1151.7 | 0.240693      | 78.2             | 130.0            | 190.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 16     | 1147.8 | 0.270455      | 87.9             | 146.0            | 213.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 17     | 1178   | 0.241657      | 78.5             | 130.5            | 190.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 18     | 1230.6 | 0.208655      | 67.8             | 112.7            | 164.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 19     | 1355.2 | 0.175215      | 56.9             | 94.6             | 138.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 20     | 1349.1 | 0.231863      | 75.4             | 125.2            | 183.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 21     | 1370   | 0.260634      | 84.7             | 140.7            | 205.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 22     | 1316.4 | 0.226555      | 73.6             | 122.3            | 179.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 23     | 1248.9 | 0.230439      | 74.9             | 124.4            | 182.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 14  | 24     | 1166.2 | 0.257711      | 83.8             | 139.2            | 203.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 1      | 1108.5 | 0.238652      | 77.6             | 128.9            | 188.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 2      | 1064   | 0.281769      | 91.6             | 152.2            | 222.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 3      | 1084.3 | 0.267694      | 87.0             | 144.6            | 211.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 4      | 1080.3 | 0.215732      | 70.1             | 116.5            | 170.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 5      | 1090.4 | 0.178587      | 58.0             | 96.4             | 141.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 6      | 1129.4 | 0.261676      | 85.0             | 141.3            | 206.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 7      | 1152   | 0.230607      | 74.9             | 124.5            | 182.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 8      | 1252.8 | 0.251312      | 81.7             | 135.7            | 198.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 9      | 1336.5 | 0.269875      | 87.7             | 145.7            | 213.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 10     | 1339.1 | 0.260353      | 84.6             | 140.6            | 205.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 11     | 1326.8 | 0.233817      | 76.0             | 126.3            | 184.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 12     | 1242.7 | 0.223591      | 72.7             | 120.7            | 176.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 13     | 1182.8 | 0.216445      | 70.3             | 116.9            | 171.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 14     | 1129.3 | 0.256298      | 83.3             | 138.4            | 202.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 15     | 1136   | 0.200546      | 65.2             | 108.3            | 158.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 16     | 1175.2 | 0.17699       | 57.5             | 95.6             | 139.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 17     | 1201   | 0.176707      | 57.4             | 95.4             | 139.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 18     | 1265.7 | 0.216579      | 70.4             | 117.0            | 171.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 19     | 1319.6 | 0.201351      | 65.4             | 108.7            | 159.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 20     | 1334.8 | 0.184166      | 59.9             | 99.4             | 145.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 21     | 1283.9 | 0.223416      | 72.6             | 120.6            | 176.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 22     | 1224.5 | 0.17368       | 56.4             | 93.8             | 137.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 23     | 1120.8 | 0.130984      | 42.6             | 70.7             | 103.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 15  | 24     | 1067.3 | 0.120075      | 39.0             | 64.8             | 94.9             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 3     | 16  | 1      | 1021.9 | 0.123812      | 40.2             | 66.9             | 97.8             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 2      | 1023.1 | 0.086823      | 28.2             | 46.9             | 68.6             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 3      | 1022.4 | 0.083211      | 27.0             | 44.9             | 65.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 4      | 1051.4 | 0.063159      | 20.5             | 34.1             | 49.9             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 5      | 1107.7 | 0.080295      | 26.1             | 43.4             | 63.4             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 6      | 1188.3 | 0.065663      | 21.3             | 35.5             | 51.9             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 7      | 1316.4 | 0.075672      | 24.6             | 40.9             | 59.8             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 8      | 1470.3 | 0.044315      | 14.4             | 23.9             | 35.0             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 9      | 1516.4 | 0.032962      | 10.7             | 17.8             | 26.0             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 10     | 1431.5 | 0.039905      | 13.0             | 21.5             | 31.5             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 11     | 1364.9 | 0.072795      | 23.7             | 39.3             | 57.5             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 12     | 1294.6 | 0.070856      | 23.0             | 38.3             | 56.0             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 13     | 1245   | 0.080588      | 26.2             | 43.5             | 63.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 14     | 1158.9 | 0.086546      | 28.1             | 46.7             | 68.4             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 15     | 1151.9 | 0.066298      | 21.5             | 35.8             | 52.4             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 16     | 1177.3 | 0.083147      | 27.0             | 44.9             | 65.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 17     | 1193   | 0.078812      | 25.6             | 42.6             | 62.3             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 18     | 1187.5 | 0.059053      | 19.2             | 31.9             | 46.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 19     | 1213.7 | 0.064343      | 20.9             | 34.7             | 50.8             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 20     | 1286.5 | 0.092038      | 29.9             | 49.7             | 72.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 21     | 1257.9 | 0.067932      | 22.1             | 36.7             | 53.7             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 22     | 1192.5 | 0.063355      | 20.6             | 34.2             | 50.1             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 23     | 1147   | 0.058803      | 19.1             | 31.8             | 46.5             |                       | -                             | -                             | -                             |
| 2020 | 3     | 16  | 24     | 1075.2 | 0.052854      | 17.2             | 28.5             | 41.8             |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 1      | 1023.9 | 0.107071      | 34.8             | 57.8             | 84.6             |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 2      | 1021.7 | 0.087714      | 28.5             | 47.4             | 69.3             |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 3      | 1025.3 | 0.17265       | 56.1             | 93.2             | 136.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 4      | 1056.8 | 0.185116      | 60.2             | 100.0            | 146.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 5      | 1099.8 | 0.204213      | 66.4             | 110.3            | 161.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 6      | 1223.1 | 0.213776      | 69.5             | 115.4            | 168.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 7      | 1348.2 | 0.233117      | 75.8             | 125.9            | 184.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 8      | 1467.6 | 0.166335      | 54.1             | 89.8             | 131.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 9      | 1476   | 0.16766       | 54.5             | 90.5             | 132.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 10     | 1407.8 | 0.163098      | 53.0             | 88.1             | 128.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 11     | 1365.3 | 0.175195      | 56.9             | 94.6             | 138.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 12     | 1295.7 | 0.135715      | 44.1             | 73.3             | 107.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 13     | 1223.1 | 0.121549      | 39.5             | 65.6             | 96.0             |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 14     | 1152.1 | 0.140834      | 45.8             | 76.1             | 111.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 15     | 1183.5 | 0.136822      | 44.5             | 73.9             | 108.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 16     | 1218.4 | 0.124738      | 40.5             | 67.4             | 98.5             |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 17     | 1203.5 | 0.07486       | 24.3             | 40.4             | 59.1             |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 18     | 1200.9 | 0.113394      | 36.9             | 61.2             | 89.6             |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 19     | 1244.4 | 0.239531      | 77.8             | 129.3            | 189.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 20     | 1248.1 | 0.358498      | 116.5            | 193.6            | 283.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 21     | 1222.5 | 0.425665      | 138.3            | 229.9            | 336.3            |                       | -                             | -                             | -                             |



| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 3     | 17  | 22     | 1219   | 0.434437      | 141.2            | 234.6            | 343.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 23     | 1195   | 0.43628       | 141.8            | 235.6            | 344.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 17  | 24     | 1134.6 | 0.452002      | 146.9            | 244.1            | 357.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 1      | 1044.8 | 0.472912      | 153.7            | 255.4            | 373.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 2      | 1018.3 | 0.48727       | 158.4            | 263.1            | 384.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 3      | 1009.3 | 0.541173      | 175.9            | 292.2            | 427.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 4      | 1025.8 | 0.630288      | 204.8            | 340.4            | 497.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 5      | 1109.9 | 0.664162      | 215.9            | 358.6            | 524.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 6      | 1238.9 | 0.817521      | 265.7            | 441.5            | 645.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 7      | 1369.6 | 0.82595       | 268.4            | 446.0            | 652.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 8      | 1450.2 | 0.797746      | 259.3            | 430.8            | 630.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 9      | 1432.8 | 0.776496      | 252.4            | 419.3            | 613.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 10     | 1364.2 | 0.827472      | 268.9            | 446.8            | 653.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 11     | 1302.2 | 0.793844      | 258.0            | 428.7            | 627.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 12     | 1244.5 | 0.845735      | 274.9            | 456.7            | 668.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 13     | 1183.6 | 0.78802       | 256.1            | 425.5            | 622.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 14     | 1168.1 | 0.751665      | 244.3            | 405.9            | 593.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 15     | 1133.7 | 0.695414      | 226.0            | 375.5            | 549.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 16     | 1129.9 | 0.64593       | 209.9            | 348.8            | 510.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 17     | 1138.7 | 0.685944      | 222.9            | 370.4            | 541.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 18     | 1096   | 0.677946      | 220.3            | 366.1            | 535.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 19     | 1143.5 | 0.688445      | 223.7            | 371.8            | 543.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 20     | 1165.3 | 0.7188        | 233.6            | 388.2            | 567.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 21     | 1148.5 | 0.759378      | 246.8            | 410.1            | 599.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 22     | 1111.2 | 0.77648       | 252.4            | 419.3            | 613.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 23     | 1080.1 | 0.704689      | 229.0            | 380.5            | 556.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 18  | 24     | 1025.8 | 0.657939      | 213.8            | 355.3            | 519.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 1      | 967.6  | 0.685365      | 222.7            | 370.1            | 541.4            |                       | -                             | -                             | 63.84                         |
| 2020 | 3     | 19  | 2      | 931.6  | 0.675196      | 219.4            | 364.6            | 533.4            |                       | -                             | -                             | 91.81                         |
| 2020 | 3     | 19  | 3      | 955.8  | 0.554637      | 180.3            | 299.5            | 438.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 4      | 947.5  | 0.630952      | 205.1            | 340.7            | 498.5            |                       | -                             | -                             | 40.95                         |
| 2020 | 3     | 19  | 5      | 1017.4 | 0.377108      | 122.6            | 203.6            | 297.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 6      | 1115.6 | 0.388448      | 126.2            | 209.8            | 306.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 7      | 1241.4 | 0.407594      | 132.5            | 220.1            | 322.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 8      | 1310.8 | 0.398492      | 129.5            | 215.2            | 314.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 9      | 1369.3 | 0.392208      | 127.5            | 211.8            | 309.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 10     | 1338.4 | 0.433649      | 140.9            | 234.2            | 342.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 11     | 1246.4 | 0.366101      | 119.0            | 197.7            | 289.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 12     | 1227   | 0.326574      | 106.1            | 176.4            | 258.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 13     | 1168   | 0.273615      | 88.9             | 147.8            | 216.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 14     | 1135.5 | 0.334563      | 108.7            | 180.7            | 264.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 15     | 1141.5 | 0.274506      | 89.2             | 148.2            | 216.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 16     | 1132.6 | 0.251275      | 81.7             | 135.7            | 198.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 17     | 1126.8 | 0.236102      | 76.7             | 127.5            | 186.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 19  | 18     | 1120.3 | 0.13039       | 42.4             | 70.4             | 103.0            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 3     | 19  | 19     | 1148.2 | 0.08264    | 26.9          | 44.6          | 65.3          |                    | -                          | -                          | -                          |
| 2020 | 3     | 19  | 20     | 1192   | 0.074696   | 24.3          | 40.3          | 59.0          |                    | -                          | -                          | -                          |
| 2020 | 3     | 19  | 21     | 1169.2 | 0.092948   | 30.2          | 50.2          | 73.4          |                    | -                          | -                          | -                          |
| 2020 | 3     | 19  | 22     | 1102.6 | 0.145267   | 47.2          | 78.4          | 114.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 19  | 23     | 1087.2 | 0.235381   | 76.5          | 127.1         | 186.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 19  | 24     | 1030.1 | 0.416169   | 135.3         | 224.7         | 328.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 1      | 973.3  | 0.540893   | 175.8         | 292.1         | 427.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 2      | 945.3  | 0.558099   | 181.4         | 301.4         | 440.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 3      | 957    | 0.582071   | 189.2         | 314.3         | 459.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 4      | 955.1  | 0.625749   | 203.4         | 337.9         | 494.3         |                    | -                          | -                          | 29.24                      |
| 2020 | 3     | 20  | 5      | 1042.6 | 0.59889    | 194.6         | 323.4         | 473.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 6      | 1159.6 | 0.650956   | 211.6         | 351.5         | 514.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 7      | 1287.8 | 0.664523   | 216.0         | 358.8         | 525.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 8      | 1395.5 | 0.604409   | 196.4         | 326.4         | 477.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 9      | 1334.2 | 0.616995   | 200.5         | 333.2         | 487.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 10     | 1271.3 | 0.592182   | 192.5         | 319.8         | 467.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 11     | 1257.9 | 0.570785   | 185.5         | 308.2         | 450.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 12     | 1265.6 | 0.520005   | 169.0         | 280.8         | 410.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 13     | 1163.1 | 0.489204   | 159.0         | 264.2         | 386.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 14     | 1079.2 | 0.46271    | 150.4         | 249.9         | 365.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 15     | 1101.2 | 0.433277   | 140.8         | 234.0         | 342.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 16     | 1086.7 | 0.429755   | 139.7         | 232.1         | 339.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 17     | 1100.4 | 0.455012   | 147.9         | 245.7         | 359.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 18     | 1085.3 | 0.552398   | 179.5         | 298.3         | 436.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 19     | 1139.6 | 0.591028   | 192.1         | 319.2         | 466.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 20     | 1179.1 | 0.629487   | 204.6         | 339.9         | 497.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 21     | 1107   | 0.649827   | 211.2         | 350.9         | 513.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 22     | 1060.7 | 0.575316   | 187.0         | 310.7         | 454.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 23     | 1081.6 | 0.541281   | 175.9         | 292.3         | 427.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 20  | 24     | 1026.7 | 0.512296   | 166.5         | 276.6         | 404.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 1      | 921.8  | 0.392333   | 127.5         | 211.9         | 309.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 2      | 904.3  | 0.275555   | 89.6          | 148.8         | 217.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 3      | 896.2  | 0.268902   | 87.4          | 145.2         | 212.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 4      | 900.1  | 0.213425   | 69.4          | 115.2         | 168.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 5      | 945.7  | 0.180271   | 58.6          | 97.3          | 142.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 6      | 988    | 0.173378   | 56.3          | 93.6          | 137.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 7      | 1059.2 | 0.129624   | 42.1          | 70.0          | 102.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 8      | 1102.7 | 0.065612   | 21.3          | 35.4          | 51.8          |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 9      | 1231   | 0.094057   | 30.6          | 50.8          | 74.3          |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 10     | 1229.7 | 0.108198   | 35.2          | 58.4          | 85.5          |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 11     | 1145.9 | 0.063755   | 20.7          | 34.4          | 50.4          |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 12     | 1085   | 0.098894   | 32.1          | 53.4          | 78.1          |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 13     | 1049   | 0.103311   | 33.6          | 55.8          | 81.6          |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 14     | 992    | 0.116541   | 37.9          | 62.9          | 92.1          |                    | -                          | -                          | -                          |
| 2020 | 3     | 21  | 15     | 950.2  | 0.172647   | 56.1          | 93.2          | 136.4         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 3     | 21  | 16     | 922.7  | 0.172262      | 56.0             | 93.0             | 136.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 21  | 17     | 946.8  | 0.181026      | 58.8             | 97.8             | 143.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 21  | 18     | 972.4  | 0.343408      | 111.6            | 185.4            | 271.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 21  | 19     | 1009.8 | 0.527706      | 171.5            | 285.0            | 416.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 21  | 20     | 1053.1 | 0.589446      | 191.6            | 318.3            | 465.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 21  | 21     | 1002   | 0.63378       | 206.0            | 342.2            | 500.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 21  | 22     | 991    | 0.614057      | 199.6            | 331.6            | 485.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 21  | 23     | 913.9  | 0.619299      | 201.3            | 334.4            | 489.2            |                       | -                             | -                             | 65.35                         |
| 2020 | 3     | 21  | 24     | 817.7  | 0.700947      | 227.8            | 378.5            | 553.7            |                       | -                             | 50.81                         | 226.05                        |
| 2020 | 3     | 22  | 1      | 780.4  | 0.728464      | 236.8            | 393.4            | 575.5            |                       | -                             | 102.97                        | 285.09                        |
| 2020 | 3     | 22  | 2      | 819.7  | 0.625601      | 203.3            | 337.8            | 494.2            |                       | -                             | 8.12                          | 164.52                        |
| 2020 | 3     | 22  | 3      | 780.4  | 0.568274      | 184.7            | 306.9            | 448.9            |                       | -                             | 16.47                         | 158.54                        |
| 2020 | 3     | 22  | 4      | 817.6  | 0.506284      | 164.5            | 273.4            | 400.0            |                       | -                             | -                             | 72.36                         |
| 2020 | 3     | 22  | 5      | 832.1  | 0.408487      | 132.8            | 220.6            | 322.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 6      | 851.5  | 0.439029      | 142.7            | 237.1            | 346.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 7      | 931    | 0.39693       | 129.0            | 214.3            | 313.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 8      | 1017.6 | 0.349665      | 113.6            | 188.8            | 276.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 9      | 1089.3 | 0.267444      | 86.9             | 144.4            | 211.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 10     | 1072.6 | 0.180173      | 58.6             | 97.3             | 142.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 11     | 1095.2 | 0.212484      | 69.1             | 114.7            | 167.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 12     | 1033.1 | 0.236583      | 76.9             | 127.8            | 186.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 13     | 1044   | 0.287403      | 93.4             | 155.2            | 227.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 14     | 1000.1 | 0.338939      | 110.2            | 183.0            | 267.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 15     | 1008.3 | 0.304901      | 99.1             | 164.6            | 240.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 16     | 1058.6 | 0.321412      | 104.5            | 173.6            | 253.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 17     | 1147.5 | 0.377247      | 122.6            | 203.7            | 298.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 18     | 1127.2 | 0.439659      | 142.9            | 237.4            | 347.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 19     | 1180.4 | 0.524422      | 170.4            | 283.2            | 414.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 20     | 1184.7 | 0.584129      | 189.8            | 315.4            | 461.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 21     | 1178.4 | 0.647206      | 210.3            | 349.5            | 511.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 22  | 22     | 1061.2 | 0.731385      | 237.7            | 394.9            | 577.8            |                       | -                             | -                             | 6.59                          |
| 2020 | 3     | 22  | 23     | 1005.2 | 0.802402      | 260.8            | 433.3            | 633.9            |                       | -                             | -                             | 118.70                        |
| 2020 | 3     | 22  | 24     | 902    | 0.808945      | 262.9            | 436.8            | 639.1            |                       | -                             | 24.83                         | 227.07                        |
| 2020 | 3     | 23  | 1      | 898.6  | 0.825564      | 268.3            | 445.8            | 652.2            |                       | -                             | 37.20                         | 243.60                        |
| 2020 | 3     | 23  | 2      | 883.7  | 0.814477      | 264.7            | 439.8            | 643.4            |                       | -                             | 46.12                         | 249.74                        |
| 2020 | 3     | 23  | 3      | 906.3  | 0.736726      | 239.4            | 397.8            | 582.0            |                       | -                             | -                             | 165.71                        |
| 2020 | 3     | 23  | 4      | 893.7  | 0.741091      | 240.9            | 400.2            | 585.5            |                       | -                             | -                             | 181.76                        |
| 2020 | 3     | 23  | 5      | 950.8  | 0.71208       | 231.4            | 384.5            | 562.5            |                       | -                             | -                             | 101.74                        |
| 2020 | 3     | 23  | 6      | 1098   | 0.668334      | 217.2            | 360.9            | 528.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 23  | 7      | 1245.7 | 0.643414      | 209.1            | 347.4            | 508.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 23  | 8      | 1339.9 | 0.696313      | 226.3            | 376.0            | 550.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 23  | 9      | 1371.5 | 0.743937      | 241.8            | 401.7            | 587.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 23  | 10     | 1296.5 | 0.735677      | 239.1            | 397.3            | 581.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 23  | 11     | 1299.7 | 0.834049      | 271.1            | 450.4            | 658.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 23  | 12     | 1271.8 | 0.887283      | 288.4            | 479.1            | 701.0            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 3     | 23  | 13     | 1167.5 | 0.847057      | 275.3            | 457.4            | 669.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 23  | 14     | 1147.6 | 0.811307      | 263.7            | 438.1            | 640.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 23  | 15     | 1110.1 | 0.860502      | 279.7            | 464.7            | 679.8            |                       | -                             | -                             | 59.70                         |
| 2020 | 3     | 23  | 16     | 1177.6 | 0.80606       | 262.0            | 435.3            | 636.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 23  | 17     | 1247.1 | 0.750918      | 244.0            | 405.5            | 593.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 23  | 18     | 1173.3 | 0.751449      | 244.2            | 405.8            | 593.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 23  | 19     | 1219.1 | 0.782586      | 254.3            | 422.6            | 618.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 23  | 20     | 1242.4 | 0.819444      | 266.3            | 442.5            | 647.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 23  | 21     | 1219.3 | 0.846041      | 275.0            | 456.9            | 668.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 23  | 22     | 1105.5 | 0.867863      | 282.1            | 468.6            | 685.6            |                       | -                             | -                             | 70.11                         |
| 2020 | 3     | 23  | 23     | 1033.2 | 0.858721      | 279.1            | 463.7            | 678.4            |                       | -                             | -                             | 135.19                        |
| 2020 | 3     | 23  | 24     | 950.3  | 0.872493      | 283.6            | 471.1            | 689.3            |                       | -                             | 10.85                         | 228.97                        |
| 2020 | 3     | 24  | 1      | 901.4  | 0.852447      | 277.0            | 460.3            | 673.4            |                       | -                             | 48.92                         | 262.03                        |
| 2020 | 3     | 24  | 2      | 867.9  | 0.818684      | 266.1            | 442.1            | 646.8            |                       | -                             | 64.19                         | 268.86                        |
| 2020 | 3     | 24  | 3      | 867    | 0.810266      | 263.3            | 437.5            | 640.1            |                       | -                             | 60.54                         | 263.11                        |
| 2020 | 3     | 24  | 4      | 898.2  | 0.746418      | 242.6            | 403.1            | 589.7            |                       | -                             | -                             | 181.47                        |
| 2020 | 3     | 24  | 5      | 947.5  | 0.751256      | 244.2            | 405.7            | 593.5            |                       | -                             | -                             | 135.99                        |
| 2020 | 3     | 24  | 6      | 1084.3 | 0.709526      | 230.6            | 383.1            | 560.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 7      | 1243   | 0.729588      | 237.1            | 394.0            | 576.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 8      | 1349.1 | 0.777732      | 252.8            | 420.0            | 614.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 9      | 1373.5 | 0.71108       | 231.1            | 384.0            | 561.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 10     | 1353.2 | 0.789797      | 256.7            | 426.5            | 623.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 11     | 1329.8 | 0.742982      | 241.5            | 401.2            | 587.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 12     | 1360.8 | 0.774803      | 251.8            | 418.4            | 612.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 13     | 1440.5 | 0.729485      | 237.1            | 393.9            | 576.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 14     | 1423.9 | 0.722325      | 234.8            | 390.1            | 570.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 15     | 1438.1 | 0.642334      | 208.8            | 346.9            | 507.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 16     | 1434.3 | 0.589695      | 191.7            | 318.4            | 465.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 17     | 1474.8 | 0.437238      | 142.1            | 236.1            | 345.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 18     | 1389.7 | 0.387689      | 126.0            | 209.4            | 306.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 19     | 1402.4 | 0.385645      | 125.3            | 208.2            | 304.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 20     | 1353.1 | 0.411375      | 133.7            | 222.1            | 325.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 21     | 1389.2 | 0.477744      | 155.3            | 258.0            | 377.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 22     | 1274   | 0.438834      | 142.6            | 237.0            | 346.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 23     | 1188.2 | 0.382926      | 124.5            | 206.8            | 302.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 24  | 24     | 1129.8 | 0.379893      | 123.5            | 205.1            | 300.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 25  | 1      | 1033.4 | 0.472239      | 153.5            | 255.0            | 373.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 25  | 2      | 970.5  | 0.487949      | 158.6            | 263.5            | 385.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 25  | 3      | 962.5  | 0.40569       | 131.8            | 219.1            | 320.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 25  | 4      | 964.3  | 0.446464      | 145.1            | 241.1            | 352.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 25  | 5      | 1022.4 | 0.316204      | 102.8            | 170.8            | 249.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 25  | 6      | 1122.1 | 0.347961      | 113.1            | 187.9            | 274.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 25  | 7      | 1247.9 | 0.176881      | 57.5             | 95.5             | 139.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 25  | 8      | 1340.6 | 0.120868      | 39.3             | 65.3             | 95.5             |                       | -                             | -                             | -                             |
| 2020 | 3     | 25  | 9      | 1362.8 | 0.091013      | 29.6             | 49.1             | 71.9             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 3     | 25  | 10     | 1348.5 | 0.08461    | 27.5          | 45.7          | 66.8          |                    | -                          | -                          | -                          |
| 2020 | 3     | 25  | 11     | 1311.5 | 0.081448   | 26.5          | 44.0          | 64.3          |                    | -                          | -                          | -                          |
| 2020 | 3     | 25  | 12     | 1310.4 | 0.060678   | 19.7          | 32.8          | 47.9          |                    | -                          | -                          | -                          |
| 2020 | 3     | 25  | 13     | 1299.3 | 0.062584   | 20.3          | 33.8          | 49.4          |                    | -                          | -                          | -                          |
| 2020 | 3     | 25  | 14     | 1290.8 | 0.06798    | 22.1          | 36.7          | 53.7          |                    | -                          | -                          | -                          |
| 2020 | 3     | 25  | 15     | 1246.7 | 0.096154   | 31.3          | 51.9          | 76.0          |                    | -                          | -                          | -                          |
| 2020 | 3     | 25  | 16     | 1252.9 | 0.093802   | 30.5          | 50.7          | 74.1          |                    | -                          | -                          | -                          |
| 2020 | 3     | 25  | 17     | 1329.5 | 0.106072   | 34.5          | 57.3          | 83.8          |                    | -                          | -                          | -                          |
| 2020 | 3     | 25  | 18     | 1345.5 | 0.118986   | 38.7          | 64.3          | 94.0          |                    | -                          | -                          | -                          |
| 2020 | 3     | 25  | 19     | 1322.2 | 0.289138   | 94.0          | 156.1         | 228.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 25  | 20     | 1287   | 0.338761   | 110.1         | 182.9         | 267.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 25  | 21     | 1266   | 0.418997   | 136.2         | 226.3         | 331.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 25  | 22     | 1196.8 | 0.410545   | 133.4         | 221.7         | 324.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 25  | 23     | 1144.3 | 0.384915   | 125.1         | 207.9         | 304.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 25  | 24     | 1107.9 | 0.330013   | 107.3         | 178.2         | 260.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 1      | 1037.4 | 0.245476   | 79.8          | 132.6         | 193.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 2      | 1005.1 | 0.255619   | 83.1          | 138.0         | 201.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 3      | 1015.1 | 0.197145   | 64.1          | 106.5         | 155.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 4      | 1056.6 | 0.189296   | 61.5          | 102.2         | 149.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 5      | 1121.5 | 0.124731   | 40.5          | 67.4          | 98.5          |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 6      | 1236.6 | 0.094968   | 30.9          | 51.3          | 75.0          |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 7      | 1406.2 | 0.101534   | 33.0          | 54.8          | 80.2          |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 8      | 1481   | 0.106583   | 34.6          | 57.6          | 84.2          |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 9      | 1457.4 | 0.075793   | 24.6          | 40.9          | 59.9          |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 10     | 1385.5 | 0.131395   | 42.7          | 71.0          | 103.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 11     | 1342.6 | 0.155262   | 50.5          | 83.8          | 122.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 12     | 1341.4 | 0.256492   | 83.4          | 138.5         | 202.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 13     | 1279.9 | 0.360258   | 117.1         | 194.5         | 284.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 14     | 1192.6 | 0.417994   | 135.8         | 225.7         | 330.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 15     | 1198.6 | 0.53639    | 174.3         | 289.7         | 423.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 16     | 1202.6 | 0.801      | 260.3         | 432.5         | 632.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 17     | 1227   | 0.816698   | 265.4         | 441.0         | 645.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 18     | 1157   | 0.877633   | 285.2         | 473.9         | 693.3         |                    | -                          | -                          | 26.33                      |
| 2020 | 3     | 26  | 19     | 1290.7 | 0.924351   | 300.4         | 499.1         | 730.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 20     | 1267.7 | 0.91992    | 299.0         | 496.8         | 726.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 21     | 1235.7 | 0.904789   | 294.1         | 488.6         | 714.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 26  | 22     | 1115.1 | 0.913431   | 296.9         | 493.3         | 721.6         |                    | -                          | -                          | 96.51                      |
| 2020 | 3     | 26  | 23     | 1141   | 0.91455    | 297.2         | 493.9         | 722.5         |                    | -                          | -                          | 71.49                      |
| 2020 | 3     | 26  | 24     | 1028.1 | 0.925415   | 300.8         | 499.7         | 731.1         |                    | -                          | -                          | 192.98                     |
| 2020 | 3     | 27  | 1      | 941.5  | 0.898646   | 292.1         | 485.3         | 709.9         |                    | -                          | 33.77                      | 258.43                     |
| 2020 | 3     | 27  | 2      | 934    | 0.909482   | 295.6         | 491.1         | 718.5         |                    | -                          | 47.12                      | 274.49                     |
| 2020 | 3     | 27  | 3      | 937.9  | 0.792502   | 257.6         | 428.0         | 626.1         |                    | -                          | -                          | 178.18                     |
| 2020 | 3     | 27  | 4      | 937    | 0.894229   | 290.6         | 482.9         | 706.4         |                    | -                          | 35.88                      | 259.44                     |
| 2020 | 3     | 27  | 5      | 982.1  | 0.856976   | 278.5         | 462.8         | 677.0         |                    | -                          | -                          | 184.91                     |
| 2020 | 3     | 27  | 6      | 1082.9 | 0.919729   | 298.9         | 496.7         | 726.6         |                    | -                          | -                          | 133.69                     |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 3     | 27  | 7      | 1236.8 | 0.901027      | 292.8            | 486.6            | 711.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 8      | 1381.8 | 0.937659      | 304.7            | 506.3            | 740.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 9      | 1405.4 | 0.961736      | 312.6            | 519.3            | 759.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 10     | 1353.3 | 0.967275      | 314.4            | 522.3            | 764.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 11     | 1393.4 | 0.969416      | 315.1            | 523.5            | 765.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 12     | 1455.1 | 0.958408      | 311.5            | 517.5            | 757.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 13     | 1428.2 | 0.957592      | 311.2            | 517.1            | 756.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 14     | 1445.9 | 0.970739      | 315.5            | 524.2            | 766.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 15     | 1473.8 | 0.95935       | 311.8            | 518.0            | 757.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 16     | 1450.9 | 0.960334      | 312.1            | 518.6            | 758.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 17     | 1495.4 | 0.960188      | 312.1            | 518.5            | 758.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 18     | 1456   | 0.968464      | 314.8            | 523.0            | 765.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 19     | 1477   | 0.973092      | 316.3            | 525.5            | 768.7            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 20     | 1423.6 | 0.965871      | 313.9            | 521.6            | 763.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 21     | 1381   | 0.938301      | 304.9            | 506.7            | 741.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 22     | 1310.7 | 0.910766      | 296.0            | 491.8            | 719.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 23     | 1337   | 0.867056      | 281.8            | 468.2            | 685.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 27  | 24     | 1285.7 | 0.876993      | 285.0            | 473.6            | 692.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 1      | 1234.1 | 0.863932      | 280.8            | 466.5            | 682.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 2      | 1213.5 | 0.883323      | 287.1            | 477.0            | 697.8            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 3      | 1187.1 | 0.847533      | 275.4            | 457.7            | 669.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 4      | 1202.8 | 0.845766      | 274.9            | 456.7            | 668.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 5      | 1234.1 | 0.810633      | 263.5            | 437.7            | 640.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 6      | 1293.5 | 0.688983      | 223.9            | 372.1            | 544.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 7      | 1431.5 | 0.607765      | 197.5            | 328.2            | 480.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 8      | 1527.8 | 0.553745      | 180.0            | 299.0            | 437.5            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 9      | 1564.7 | 0.55899       | 181.7            | 301.9            | 441.6            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 10     | 1586.5 | 0.582695      | 189.4            | 314.7            | 460.3            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 11     | 1573.9 | 0.579947      | 188.5            | 313.2            | 458.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 12     | 1482.8 | 0.463383      | 150.6            | 250.2            | 366.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 13     | 1406.3 | 0.463235      | 150.6            | 250.1            | 366.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 14     | 1329.1 | 0.357081      | 116.1            | 192.8            | 282.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 15     | 1322.9 | 0.363266      | 118.1            | 196.2            | 287.0            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 16     | 1306.5 | 0.378635      | 123.1            | 204.5            | 299.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 17     | 1338.1 | 0.320481      | 104.2            | 173.1            | 253.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 18     | 1313.2 | 0.237248      | 77.1             | 128.1            | 187.4            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 19     | 1370.2 | 0.220104      | 71.5             | 118.9            | 173.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 20     | 1371.1 | 0.188761      | 61.3             | 101.9            | 149.1            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 21     | 1386.6 | 0.145862      | 47.4             | 78.8             | 115.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 22     | 1391.6 | 0.129372      | 42.0             | 69.9             | 102.2            |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 23     | 1331.1 | 0.114704      | 37.3             | 61.9             | 90.6             |                       | -                             | -                             | -                             |
| 2020 | 3     | 28  | 24     | 1236.1 | 0.129         | 41.9             | 69.7             | 101.9            |                       | -                             | -                             | -                             |
| 2020 | 3     | 29  | 1      | 1213.5 | 0.120905      | 39.3             | 65.3             | 95.5             |                       | -                             | -                             | -                             |
| 2020 | 3     | 29  | 2      | 1226.3 | 0.104029      | 33.8             | 56.2             | 82.2             |                       | -                             | -                             | -                             |
| 2020 | 3     | 29  | 3      | 1237.3 | 0.104666      | 34.0             | 56.5             | 82.7             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 3     | 29  | 4      | 1266.3 | 0.108062   | 35.1          | 58.4          | 85.4          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 5      | 1274.8 | 0.097493   | 31.7          | 52.6          | 77.0          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 6      | 1306.8 | 0.103103   | 33.5          | 55.7          | 81.5          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 7      | 1370.4 | 0.140168   | 45.6          | 75.7          | 110.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 8      | 1421.9 | 0.144187   | 46.9          | 77.9          | 113.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 9      | 1471.9 | 0.113323   | 36.8          | 61.2          | 89.5          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 10     | 1404   | 0.087882   | 28.6          | 47.5          | 69.4          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 11     | 1389.7 | 0.079036   | 25.7          | 42.7          | 62.4          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 12     | 1316.3 | 0.064053   | 20.8          | 34.6          | 50.6          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 13     | 1263.5 | 0.069913   | 22.7          | 37.8          | 55.2          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 14     | 1249.5 | 0.117152   | 38.1          | 63.3          | 92.5          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 15     | 1158.6 | 0.11673    | 37.9          | 63.0          | 92.2          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 16     | 1209.5 | 0.160203   | 52.1          | 86.5          | 126.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 17     | 1249.3 | 0.088539   | 28.8          | 47.8          | 69.9          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 18     | 1292.1 | 0.075336   | 24.5          | 40.7          | 59.5          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 19     | 1366.9 | 0.099427   | 32.3          | 53.7          | 78.5          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 20     | 1394   | 0.108231   | 35.2          | 58.4          | 85.5          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 21     | 1375.3 | 0.146289   | 47.5          | 79.0          | 115.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 22     | 1312.6 | 0.10983    | 35.7          | 59.3          | 86.8          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 23     | 1206.1 | 0.108077   | 35.1          | 58.4          | 85.4          |                    | -                          | -                          | -                          |
| 2020 | 3     | 29  | 24     | 1119.4 | 0.102695   | 33.4          | 55.5          | 81.1          |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 1      | 1079.4 | 0.124245   | 40.4          | 67.1          | 98.2          |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 2      | 1069.7 | 0.157843   | 51.3          | 85.2          | 124.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 3      | 1067   | 0.220918   | 71.8          | 119.3         | 174.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 4      | 1091.3 | 0.223152   | 72.5          | 120.5         | 176.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 5      | 1140.8 | 0.237987   | 77.3          | 128.5         | 188.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 6      | 1290.4 | 0.181648   | 59.0          | 98.1          | 143.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 7      | 1414.6 | 0.123814   | 40.2          | 66.9          | 97.8          |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 8      | 1529.5 | 0.133971   | 43.5          | 72.3          | 105.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 9      | 1491.6 | 0.175117   | 56.9          | 94.6          | 138.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 10     | 1422.2 | 0.170831   | 55.5          | 92.2          | 135.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 11     | 1429.3 | 0.176355   | 57.3          | 95.2          | 139.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 12     | 1410.5 | 0.232582   | 75.6          | 125.6         | 183.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 13     | 1396.4 | 0.271112   | 88.1          | 146.4         | 214.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 14     | 1438.4 | 0.343717   | 111.7         | 185.6         | 271.5         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 15     | 1368.2 | 0.333148   | 108.3         | 179.9         | 263.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 16     | 1371.9 | 0.317173   | 103.1         | 171.3         | 250.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 17     | 1437.3 | 0.306134   | 99.5          | 165.3         | 241.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 18     | 1384.7 | 0.273315   | 88.8          | 147.6         | 215.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 19     | 1409.4 | 0.2488     | 80.9          | 134.4         | 196.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 20     | 1388   | 0.221872   | 72.1          | 119.8         | 175.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 21     | 1293.2 | 0.23383    | 76.0          | 126.3         | 184.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 22     | 1182.4 | 0.269663   | 87.6          | 145.6         | 213.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 23     | 1154.3 | 0.278024   | 90.4          | 150.1         | 219.6         |                    | -                          | -                          | -                          |
| 2020 | 3     | 30  | 24     | 1078.5 | 0.239735   | 77.9          | 129.5         | 189.4         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 3     | 31  | 1      | 1003.4 | 0.290815   | 94.5          | 157.0         | 229.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 2      | 953.3  | 0.31254    | 101.6         | 168.8         | 246.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 3      | 953.6  | 0.284629   | 92.5          | 153.7         | 224.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 4      | 963.4  | 0.267946   | 87.1          | 144.7         | 211.7         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 5      | 1024.6 | 0.246614   | 80.1          | 133.2         | 194.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 6      | 1136.4 | 0.228179   | 74.2          | 123.2         | 180.3         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 7      | 1260.2 | 0.212536   | 69.1          | 114.8         | 167.9         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 8      | 1349.2 | 0.165565   | 53.8          | 89.4          | 130.8         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 9      | 1327.9 | 0.153639   | 49.9          | 83.0          | 121.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 10     | 1276.6 | 0.191133   | 62.1          | 103.2         | 151.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 11     | 1214.5 | 0.170933   | 55.6          | 92.3          | 135.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 12     | 1195.7 | 0.158207   | 51.4          | 85.4          | 125.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 13     | 1196   | 0.144495   | 47.0          | 78.0          | 114.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 14     | 1131.4 | 0.184107   | 59.8          | 99.4          | 145.4         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 15     | 1144.2 | 0.220494   | 71.7          | 119.1         | 174.2         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 16     | 1196.6 | 0.144355   | 46.9          | 78.0          | 114.0         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 17     | 1248.6 | 0.154549   | 50.2          | 83.5          | 122.1         |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 18     | 1198.9 | 0.103632   | 33.7          | 56.0          | 81.9          |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 19     | 1215.6 | 0.100776   | 32.8          | 54.4          | 79.6          |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 20     | 1233.9 | 0.072363   | 23.5          | 39.1          | 57.2          |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 21     | 1209.9 | 0.046059   | 15.0          | 24.9          | 36.4          |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 22     | 1094.3 | 0.018778   | 6.1           | 10.1          | 14.8          |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 23     | 1045.8 | 0.030369   | 9.9           | 16.4          | 24.0          |                    | -                          | -                          | -                          |
| 2020 | 3     | 31  | 24     | 952.2  | 0.101817   | 33.1          | 55.0          | 80.4          |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 1      | 910.6  | 0.084908   | 27.6          | 45.9          | 67.1          |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 2      | 872.9  | 0.080002   | 26.0          | 43.2          | 63.2          |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 3      | 853.8  | 0.130687   | 42.5          | 70.6          | 103.2         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 4      | 865.9  | 0.222936   | 72.5          | 120.4         | 176.1         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 5      | 938.4  | 0.259786   | 84.4          | 140.3         | 205.2         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 6      | 1047.6 | 0.267646   | 87.0          | 144.5         | 211.4         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 7      | 1200.7 | 0.309709   | 100.7         | 167.2         | 244.7         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 8      | 1294.6 | 0.363611   | 118.2         | 196.4         | 287.3         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 9      | 1284.3 | 0.382321   | 124.3         | 206.5         | 302.0         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 10     | 1302.3 | 0.464528   | 151.0         | 250.8         | 367.0         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 11     | 1313.2 | 0.62744    | 203.9         | 338.8         | 495.7         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 12     | 1296.5 | 0.588401   | 191.2         | 317.7         | 464.8         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 13     | 1205   | 0.592532   | 192.6         | 320.0         | 468.1         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 14     | 1188.3 | 0.709908   | 230.7         | 383.4         | 560.8         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 15     | 1152.5 | 0.761893   | 247.6         | 411.4         | 601.9         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 16     | 1148.9 | 0.844237   | 274.4         | 455.9         | 666.9         |                    | -                          | -                          | 8.05                       |
| 2020 | 4     | 1   | 17     | 1236   | 0.770757   | 250.5         | 416.2         | 608.9         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 18     | 1221.3 | 0.548996   | 178.4         | 296.5         | 433.7         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 19     | 1155.5 | 0.561451   | 182.5         | 303.2         | 443.5         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 20     | 1194.8 | 0.559881   | 182.0         | 302.3         | 442.3         |                    | -                          | -                          | -                          |
| 2020 | 4     | 1   | 21     | 1144.8 | 0.666035   | 216.5         | 359.7         | 526.2         |                    | -                          | -                          | -                          |



| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 4     | 1   | 22     | 1088   | 0.610879      | 198.5            | 329.9            | 482.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 1   | 23     | 1060.2 | 0.549613      | 178.6            | 296.8            | 434.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 1   | 24     | 993.1  | 0.560514      | 182.2            | 302.7            | 442.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 1      | 892.9  | 0.568673      | 184.8            | 307.1            | 449.3            |                       | -                             | -                             | 46.35                         |
| 2020 | 4     | 2   | 2      | 880.3  | 0.657565      | 213.7            | 355.1            | 519.5            |                       | -                             | -                             | 129.18                        |
| 2020 | 4     | 2   | 3      | 889.5  | 0.746418      | 242.6            | 403.1            | 589.7            |                       | -                             | 3.57                          | 190.17                        |
| 2020 | 4     | 2   | 4      | 882.7  | 0.708751      | 230.3            | 382.7            | 559.9            |                       | -                             | -                             | 167.21                        |
| 2020 | 4     | 2   | 5      | 931.8  | 0.60579       | 196.9            | 327.1            | 478.6            |                       | -                             | -                             | 36.77                         |
| 2020 | 4     | 2   | 6      | 1044.8 | 0.515698      | 167.6            | 278.5            | 407.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 7      | 1166.7 | 0.463773      | 150.7            | 250.4            | 366.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 8      | 1284.6 | 0.574538      | 186.7            | 310.3            | 453.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 9      | 1312.1 | 0.545048      | 177.1            | 294.3            | 430.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 10     | 1271.3 | 0.580886      | 188.8            | 313.7            | 458.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 11     | 1251.8 | 0.676394      | 219.8            | 365.3            | 534.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 12     | 1261.4 | 0.63869       | 207.6            | 344.9            | 504.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 13     | 1189.7 | 0.708925      | 230.4            | 382.8            | 560.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 14     | 1167.9 | 0.738711      | 240.1            | 398.9            | 583.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 15     | 1179.6 | 0.719603      | 233.9            | 388.6            | 568.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 16     | 1203.4 | 0.760288      | 247.1            | 410.6            | 600.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 17     | 1163.4 | 0.731791      | 237.8            | 395.2            | 578.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 18     | 1131.5 | 0.714017      | 232.1            | 385.6            | 564.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 19     | 1125.3 | 0.644965      | 209.6            | 348.3            | 509.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 20     | 1128.9 | 0.754338      | 245.2            | 407.3            | 595.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 21     | 1065.5 | 0.719424      | 233.8            | 388.5            | 568.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 22     | 1043.8 | 0.706975      | 229.8            | 381.8            | 558.5            |                       | -                             | -                             | 4.71                          |
| 2020 | 4     | 2   | 23     | 1050.3 | 0.69943       | 227.3            | 377.7            | 552.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 2   | 24     | 960.8  | 0.698458      | 227.0            | 377.2            | 551.8            |                       | -                             | -                             | 80.98                         |
| 2020 | 4     | 3   | 1      | 871.2  | 0.609476      | 198.1            | 329.1            | 481.5            |                       | -                             | -                             | 100.29                        |
| 2020 | 4     | 3   | 2      | 829.2  | 0.522911      | 169.9            | 282.4            | 413.1            |                       | -                             | -                             | 73.90                         |
| 2020 | 4     | 3   | 3      | 834.1  | 0.470556      | 152.9            | 254.1            | 371.7            |                       | -                             | -                             | 27.64                         |
| 2020 | 4     | 3   | 4      | 826.7  | 0.464295      | 150.9            | 250.7            | 366.8            |                       | -                             | -                             | 30.09                         |
| 2020 | 4     | 3   | 5      | 869.2  | 0.380355      | 123.6            | 205.4            | 300.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 6      | 931.3  | 0.354774      | 115.3            | 191.6            | 280.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 7      | 1023.7 | 0.354714      | 115.3            | 191.5            | 280.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 8      | 1137.1 | 0.312903      | 101.7            | 169.0            | 247.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 9      | 1148.3 | 0.368172      | 119.7            | 198.8            | 290.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 10     | 1178.9 | 0.408659      | 132.8            | 220.7            | 322.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 11     | 1183.4 | 0.334058      | 108.6            | 180.4            | 263.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 12     | 1154.9 | 0.398439      | 129.5            | 215.2            | 314.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 13     | 1028.9 | 0.455266      | 148.0            | 245.8            | 359.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 14     | 959.2  | 0.403484      | 131.1            | 217.9            | 318.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 15     | 956.7  | 0.382524      | 124.3            | 206.6            | 302.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 16     | 984.5  | 0.39142       | 127.2            | 211.4            | 309.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 17     | 1047.2 | 0.301654      | 98.0             | 162.9            | 238.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 18     | 1032.3 | 0.280975      | 91.3             | 151.7            | 222.0            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 4     | 3   | 19     | 1003.1 | 0.222472      | 72.3             | 120.1            | 175.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 20     | 1027.5 | 0.237594      | 77.2             | 128.3            | 187.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 21     | 1030.6 | 0.19664       | 63.9             | 106.2            | 155.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 22     | 936.3  | 0.150975      | 49.1             | 81.5             | 119.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 23     | 884.1  | 0.189846      | 61.7             | 102.5            | 150.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 3   | 24     | 868.1  | 0.161924      | 52.6             | 87.4             | 127.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 1      | 816.4  | 0.11602       | 37.7             | 62.7             | 91.7             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 2      | 777.5  | 0.114093      | 37.1             | 61.6             | 90.1             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 3      | 772.7  | 0.112167      | 36.5             | 60.6             | 88.6             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 4      | 779.4  | 0.1102        | 35.8             | 59.5             | 87.1             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 5      | 801.4  | 0.101165      | 32.9             | 54.6             | 79.9             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 6      | 853.7  | 0.079071      | 25.7             | 42.7             | 62.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 7      | 914.8  | 0.082277      | 26.7             | 44.4             | 65.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 8      | 1052.2 | 0.059698      | 19.4             | 32.2             | 47.2             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 9      | 1128.9 | 0.072158      | 23.5             | 39.0             | 57.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 10     | 1115.8 | 0.095378      | 31.0             | 51.5             | 75.3             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 11     | 1087.9 | 0.080681      | 26.2             | 43.6             | 63.7             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 12     | 1046.3 | 0.076414      | 24.8             | 41.3             | 60.4             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 13     | 1028.6 | 0.063788      | 20.7             | 34.4             | 50.4             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 14     | 974.7  | 0.068184      | 22.2             | 36.8             | 53.9             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 15     | 955.9  | 0.059208      | 19.2             | 32.0             | 46.8             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 16     | 944.5  | 0.076141      | 24.7             | 41.1             | 60.2             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 17     | 979.3  | 0.111782      | 36.3             | 60.4             | 88.3             |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 18     | 976.6  | 0.217879      | 70.8             | 117.7            | 172.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 19     | 978.8  | 0.338741      | 110.1            | 182.9            | 267.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 20     | 1037.1 | 0.428839      | 139.4            | 231.6            | 338.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 21     | 1016.1 | 0.546375      | 177.6            | 295.0            | 431.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 4   | 22     | 980    | 0.677665      | 220.2            | 365.9            | 535.4            |                       | -                             | -                             | 45.36                         |
| 2020 | 4     | 4   | 23     | 912.5  | 0.735041      | 238.9            | 396.9            | 580.7            |                       | -                             | -                             | 158.18                        |
| 2020 | 4     | 4   | 24     | 849.6  | 0.746512      | 242.6            | 403.1            | 589.7            |                       | -                             | 43.52                         | 230.14                        |
| 2020 | 4     | 5   | 1      | 777.4  | 0.733772      | 238.5            | 396.2            | 579.7            |                       | -                             | 108.84                        | 292.28                        |
| 2020 | 4     | 5   | 2      | 772    | 0.725673      | 235.8            | 391.9            | 573.3            |                       | -                             | 109.86                        | 291.28                        |
| 2020 | 4     | 5   | 3      | 758.6  | 0.782309      | 254.3            | 422.4            | 618.0            |                       | -                             | 153.85                        | 349.42                        |
| 2020 | 4     | 5   | 4      | 763    | 0.747339      | 242.9            | 403.6            | 590.4            |                       | -                             | 130.56                        | 317.40                        |
| 2020 | 4     | 5   | 5      | 784.3  | 0.767184      | 249.3            | 414.3            | 606.1            |                       | -                             | 119.98                        | 311.78                        |
| 2020 | 4     | 5   | 6      | 813.6  | 0.806396      | 262.1            | 435.5            | 637.1            |                       | -                             | 111.85                        | 313.45                        |
| 2020 | 4     | 5   | 7      | 885.9  | 0.796087      | 258.7            | 429.9            | 628.9            |                       | -                             | 33.99                         | 233.01                        |
| 2020 | 4     | 5   | 8      | 959.9  | 0.781837      | 254.1            | 422.2            | 617.7            |                       | -                             | -                             | 147.75                        |
| 2020 | 4     | 5   | 9      | 1000.6 | 0.763317      | 248.1            | 412.2            | 603.0            |                       | -                             | -                             | 92.42                         |
| 2020 | 4     | 5   | 10     | 1002   | 0.736522      | 239.4            | 397.7            | 581.9            |                       | -                             | -                             | 69.85                         |
| 2020 | 4     | 5   | 11     | 963.7  | 0.815456      | 265.0            | 440.3            | 644.2            |                       | -                             | -                             | 170.51                        |
| 2020 | 4     | 5   | 12     | 968.7  | 0.839038      | 272.7            | 453.1            | 662.8            |                       | -                             | -                             | 184.14                        |
| 2020 | 4     | 5   | 13     | 976.2  | 0.830692      | 270.0            | 448.6            | 656.2            |                       | -                             | -                             | 170.05                        |
| 2020 | 4     | 5   | 14     | 918.8  | 0.738319      | 240.0            | 398.7            | 583.3            |                       | -                             | -                             | 154.47                        |
| 2020 | 4     | 5   | 15     | 920.7  | 0.744828      | 242.1            | 402.2            | 588.4            |                       | -                             | -                             | 157.71                        |

| Year | Month | Day | Period | Load   | Wind     | Wind [MW] | Wind [MW] | Wind [MW] | Min Steam [MW] | Curtailment    | Curtailment    | Curtailment    |
|------|-------|-----|--------|--------|----------|-----------|-----------|-----------|----------------|----------------|----------------|----------------|
|      |       |     |        |        | Shape    | 325       | 540       | 790       | 490            | at 325 MW wind | at 550 MW wind | at 790 MW wind |
| 2020 | 4     | 5   | 16     | 899.8  | 0.785681 | 255.3     | 424.3     | 620.7     |                | -              | 14.47          | 210.89         |
| 2020 | 4     | 5   | 17     | 908.3  | 0.804677 | 261.5     | 434.5     | 635.7     |                | -              | 16.23          | 217.40         |
| 2020 | 4     | 5   | 18     | 877.7  | 0.795661 | 258.6     | 429.7     | 628.6     |                | -              | 41.96          | 240.87         |
| 2020 | 4     | 5   | 19     | 932.8  | 0.7957   | 258.6     | 429.7     | 628.6     |                | -              | -              | 185.80         |
| 2020 | 4     | 5   | 20     | 981.2  | 0.812444 | 264.0     | 438.7     | 641.8     |                | -              | -              | 150.63         |
| 2020 | 4     | 5   | 21     | 1008.2 | 0.79882  | 259.6     | 431.4     | 631.1     |                | -              | -              | 112.87         |
| 2020 | 4     | 5   | 22     | 938.6  | 0.792587 | 257.6     | 428.0     | 626.1     |                | -              | -              | 177.54         |
| 2020 | 4     | 5   | 23     | 842.8  | 0.859521 | 279.3     | 464.1     | 679.0     |                | -              | 111.34         | 326.22         |
| 2020 | 4     | 5   | 24     | 799.9  | 0.836182 | 271.8     | 451.5     | 660.6     |                | -              | 141.64         | 350.68         |
| 2020 | 4     | 6   | 1      | 796.9  | 0.752066 | 244.4     | 406.1     | 594.1     |                | -              | 99.22          | 287.23         |
| 2020 | 4     | 6   | 2      | 741.6  | 0.670634 | 218.0     | 362.1     | 529.8     |                | -              | 110.54         | 278.20         |
| 2020 | 4     | 6   | 3      | 742.5  | 0.623249 | 202.6     | 336.6     | 492.4     |                | -              | 84.05          | 239.87         |
| 2020 | 4     | 6   | 4      | 761.1  | 0.602209 | 195.7     | 325.2     | 475.7     |                | -              | 54.09          | 204.65         |
| 2020 | 4     | 6   | 5      | 809.9  | 0.524108 | 170.3     | 283.0     | 414.0     |                | -              | -              | 94.15          |
| 2020 | 4     | 6   | 6      | 916    | 0.528557 | 171.8     | 285.4     | 417.6     |                | -              | -              | -              |
| 2020 | 4     | 6   | 7      | 964.4  | 0.504644 | 164.0     | 272.5     | 398.7     |                | -              | -              | -              |
| 2020 | 4     | 6   | 8      | 1092.3 | 0.478398 | 155.5     | 258.3     | 377.9     |                | -              | -              | -              |
| 2020 | 4     | 6   | 9      | 1139.4 | 0.591516 | 192.2     | 319.4     | 467.3     |                | -              | -              | -              |
| 2020 | 4     | 6   | 10     | 1154.8 | 0.594221 | 193.1     | 320.9     | 469.4     |                | -              | -              | -              |
| 2020 | 4     | 6   | 11     | 1157.9 | 0.550337 | 178.9     | 297.2     | 434.8     |                | -              | -              | -              |
| 2020 | 4     | 6   | 12     | 1129.8 | 0.519856 | 169.0     | 280.7     | 410.7     |                | -              | -              | -              |
| 2020 | 4     | 6   | 13     | 1062.3 | 0.475081 | 154.4     | 256.5     | 375.3     |                | -              | -              | -              |
| 2020 | 4     | 6   | 14     | 1047.9 | 0.602843 | 195.9     | 325.5     | 476.2     |                | -              | -              | -              |
| 2020 | 4     | 6   | 15     | 1054.5 | 0.54521  | 177.2     | 294.4     | 430.7     |                | -              | -              | -              |
| 2020 | 4     | 6   | 16     | 1088.5 | 0.502127 | 163.2     | 271.1     | 396.7     |                | -              | -              | -              |
| 2020 | 4     | 6   | 17     | 1075.4 | 0.408588 | 132.8     | 220.6     | 322.8     |                | -              | -              | -              |
| 2020 | 4     | 6   | 18     | 1054   | 0.419482 | 136.3     | 226.5     | 331.4     |                | -              | -              | -              |
| 2020 | 4     | 6   | 19     | 1101   | 0.367317 | 119.4     | 198.4     | 290.2     |                | -              | -              | -              |
| 2020 | 4     | 6   | 20     | 1120.8 | 0.445037 | 144.6     | 240.3     | 351.6     |                | -              | -              | -              |
| 2020 | 4     | 6   | 21     | 1085.2 | 0.420429 | 136.6     | 227.0     | 332.1     |                | -              | -              | -              |
| 2020 | 4     | 6   | 22     | 995.7  | 0.392533 | 127.6     | 212.0     | 310.1     |                | -              | -              | -              |
| 2020 | 4     | 6   | 23     | 946.9  | 0.438255 | 142.4     | 236.7     | 346.2     |                | -              | -              | -              |
| 2020 | 4     | 6   | 24     | 838.1  | 0.407371 | 132.4     | 220.0     | 321.8     |                | -              | -              | -              |
| 2020 | 4     | 7   | 1      | 782.2  | 0.426804 | 138.7     | 230.5     | 337.2     |                | -              | -              | 44.98          |
| 2020 | 4     | 7   | 2      | 780.6  | 0.452028 | 146.9     | 244.1     | 357.1     |                | -              | -              | 66.50          |
| 2020 | 4     | 7   | 3      | 772.3  | 0.433738 | 141.0     | 234.2     | 342.7     |                | -              | -              | 60.35          |
| 2020 | 4     | 7   | 4      | 788.9  | 0.427366 | 138.9     | 230.8     | 337.6     |                | -              | -              | 38.72          |
| 2020 | 4     | 7   | 5      | 858.4  | 0.457586 | 148.7     | 247.1     | 361.5     |                | -              | -              | -              |
| 2020 | 4     | 7   | 6      | 1002.1 | 0.455401 | 148.0     | 245.9     | 359.8     |                | -              | -              | -              |
| 2020 | 4     | 7   | 7      | 1113.4 | 0.447012 | 145.3     | 241.4     | 353.1     |                | -              | -              | -              |
| 2020 | 4     | 7   | 8      | 1201.9 | 0.384587 | 125.0     | 207.7     | 303.8     |                | -              | -              | -              |
| 2020 | 4     | 7   | 9      | 1226.6 | 0.537418 | 174.7     | 290.2     | 424.6     |                | -              | -              | -              |
| 2020 | 4     | 7   | 10     | 1204.6 | 0.478628 | 155.6     | 258.5     | 378.1     |                | -              | -              | -              |
| 2020 | 4     | 7   | 11     | 1144.3 | 0.521313 | 169.4     | 281.5     | 411.8     |                | -              | -              | -              |
| 2020 | 4     | 7   | 12     | 1178.3 | 0.556844 | 181.0     | 300.7     | 439.9     |                | -              | -              | -              |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 4     | 7   | 13     | 1095.2 | 0.58957       | 191.6            | 318.4            | 465.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 7   | 14     | 1071   | 0.503243      | 163.6            | 271.8            | 397.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 7   | 15     | 1085   | 0.579526      | 188.3            | 312.9            | 457.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 7   | 16     | 1071.5 | 0.512065      | 166.4            | 276.5            | 404.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 7   | 17     | 1118.6 | 0.427656      | 139.0            | 230.9            | 337.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 7   | 18     | 1115.2 | 0.379043      | 123.2            | 204.7            | 299.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 7   | 19     | 1117.3 | 0.226754      | 73.7             | 122.4            | 179.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 7   | 20     | 1142.2 | 0.179729      | 58.4             | 97.1             | 142.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 7   | 21     | 1107.3 | 0.196601      | 63.9             | 106.2            | 155.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 7   | 22     | 987.4  | 0.192706      | 62.6             | 104.1            | 152.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 7   | 23     | 963.9  | 0.151958      | 49.4             | 82.1             | 120.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 7   | 24     | 894    | 0.175455      | 57.0             | 94.7             | 138.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 1      | 844.2  | 0.203478      | 66.1             | 109.9            | 160.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 2      | 815.5  | 0.233202      | 75.8             | 125.9            | 184.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 3      | 817.5  | 0.221166      | 71.9             | 119.4            | 174.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 4      | 844.9  | 0.203113      | 66.0             | 109.7            | 160.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 5      | 905.6  | 0.161598      | 52.5             | 87.3             | 127.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 6      | 1031   | 0.187915      | 61.1             | 101.5            | 148.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 7      | 1182.6 | 0.159608      | 51.9             | 86.2             | 126.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 8      | 1305.4 | 0.194692      | 63.3             | 105.1            | 153.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 9      | 1288.6 | 0.21278       | 69.2             | 114.9            | 168.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 10     | 1272.1 | 0.215083      | 69.9             | 116.1            | 169.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 11     | 1258.3 | 0.221808      | 72.1             | 119.8            | 175.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 12     | 1302.5 | 0.335071      | 108.9            | 180.9            | 264.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 13     | 1245.8 | 0.329963      | 107.2            | 178.2            | 260.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 14     | 1242.8 | 0.349357      | 113.5            | 188.7            | 276.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 15     | 1189.8 | 0.337066      | 109.5            | 182.0            | 266.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 16     | 1212.6 | 0.250581      | 81.4             | 135.3            | 198.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 17     | 1324.5 | 0.169994      | 55.2             | 91.8             | 134.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 18     | 1246.4 | 0.13668       | 44.4             | 73.8             | 108.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 19     | 1277.9 | 0.08158       | 26.5             | 44.1             | 64.4             |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 20     | 1275.6 | 0.067038      | 21.8             | 36.2             | 53.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 21     | 1223   | 0.05386       | 17.5             | 29.1             | 42.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 22     | 1103.5 | 0.037272      | 12.1             | 20.1             | 29.4             |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 23     | 1031.7 | 0.027209      | 8.8              | 14.7             | 21.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 8   | 24     | 933.4  | 0.062347      | 20.3             | 33.7             | 49.3             |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 1      | 871.9  | 0.066203      | 21.5             | 35.7             | 52.3             |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 2      | 820.5  | 0.158405      | 51.5             | 85.5             | 125.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 3      | 826.7  | 0.162779      | 52.9             | 87.9             | 128.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 4      | 837.2  | 0.163901      | 53.3             | 88.5             | 129.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 5      | 908.2  | 0.143512      | 46.6             | 77.5             | 113.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 6      | 1055.8 | 0.136952      | 44.5             | 74.0             | 108.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 7      | 1186.2 | 0.082932      | 27.0             | 44.8             | 65.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 8      | 1221   | 0.062289      | 20.2             | 33.6             | 49.2             |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 9      | 1232.4 | 0.066848      | 21.7             | 36.1             | 52.8             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 4     | 9   | 10     | 1192.7 | 0.103787      | 33.7             | 56.0             | 82.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 11     | 1191.6 | 0.127241      | 41.4             | 68.7             | 100.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 12     | 1182.8 | 0.145021      | 47.1             | 78.3             | 114.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 13     | 1148.4 | 0.127616      | 41.5             | 68.9             | 100.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 14     | 1081.7 | 0.161373      | 52.4             | 87.1             | 127.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 15     | 1072   | 0.16473       | 53.5             | 89.0             | 130.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 16     | 1099.4 | 0.173636      | 56.4             | 93.8             | 137.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 17     | 1065.2 | 0.226232      | 73.5             | 122.2            | 178.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 18     | 1079.7 | 0.209412      | 68.1             | 113.1            | 165.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 19     | 1069.4 | 0.21155       | 68.8             | 114.2            | 167.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 20     | 1107.1 | 0.189757      | 61.7             | 102.5            | 149.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 21     | 1134.2 | 0.236206      | 76.8             | 127.6            | 186.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 22     | 1040.5 | 0.159878      | 52.0             | 86.3             | 126.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 23     | 1030.4 | 0.147429      | 47.9             | 79.6             | 116.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 9   | 24     | 974.6  | 0.176313      | 57.3             | 95.2             | 139.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 1      | 889.6  | 0.158665      | 51.6             | 85.7             | 125.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 2      | 861.6  | 0.162409      | 52.8             | 87.7             | 128.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 3      | 851.1  | 0.128355      | 41.7             | 69.3             | 101.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 4      | 868.5  | 0.14557       | 47.3             | 78.6             | 115.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 5      | 929.2  | 0.095219      | 30.9             | 51.4             | 75.2             |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 6      | 1055.1 | 0.091754      | 29.8             | 49.5             | 72.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 7      | 1203.4 | 0.034885      | 11.3             | 18.8             | 27.6             |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 8      | 1323.5 | 0.018101      | 5.9              | 9.8              | 14.3             |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 9      | 1333.1 | 0.01675       | 5.4              | 9.0              | 13.2             |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 10     | 1259.3 | 0.019584      | 6.4              | 10.6             | 15.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 11     | 1257.2 | 0.030489      | 9.9              | 16.5             | 24.1             |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 12     | 1311.1 | 0.02863       | 9.3              | 15.5             | 22.6             |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 13     | 1275.6 | 0.041196      | 13.4             | 22.2             | 32.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 14     | 1280.2 | 0.091186      | 29.6             | 49.2             | 72.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 15     | 1274.7 | 0.12143       | 39.5             | 65.6             | 95.9             |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 16     | 1264.4 | 0.15949       | 51.8             | 86.1             | 126.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 17     | 1311.7 | 0.163171      | 53.0             | 88.1             | 128.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 18     | 1285.5 | 0.191438      | 62.2             | 103.4            | 151.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 19     | 1259.3 | 0.282894      | 91.9             | 152.8            | 223.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 20     | 1219.3 | 0.346787      | 112.7            | 187.3            | 274.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 21     | 1166.3 | 0.415148      | 134.9            | 224.2            | 328.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 22     | 1100.3 | 0.394513      | 128.2            | 213.0            | 311.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 23     | 1071.4 | 0.436318      | 141.8            | 235.6            | 344.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 10  | 24     | 962.3  | 0.524845      | 170.6            | 283.4            | 414.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 11  | 1      | 876.4  | 0.564567      | 183.5            | 304.9            | 446.0            |                       | -                             | -                             | 59.61                         |
| 2020 | 4     | 11  | 2      | 832    | 0.643029      | 209.0            | 347.2            | 508.0            |                       | -                             | 5.24                          | 165.99                        |
| 2020 | 4     | 11  | 3      | 819.3  | 0.701167      | 227.9            | 378.6            | 553.9            |                       | -                             | 49.33                         | 224.62                        |
| 2020 | 4     | 11  | 4      | 797.2  | 0.714024      | 232.1            | 385.6            | 564.1            |                       | -                             | 78.37                         | 256.88                        |
| 2020 | 4     | 11  | 5      | 814.9  | 0.738296      | 239.9            | 398.7            | 583.3            |                       | -                             | 73.78                         | 258.35                        |
| 2020 | 4     | 11  | 6      | 858.8  | 0.737159      | 239.6            | 398.1            | 582.4            |                       | -                             | 29.27                         | 213.56                        |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 4     | 11  | 7      | 937.4  | 0.724975      | 235.6            | 391.5            | 572.7            |                       | -                             | -                             | 125.33                        |
| 2020 | 4     | 11  | 8      | 1041.1 | 0.694703      | 225.8            | 375.1            | 548.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 11  | 9      | 1131.5 | 0.657666      | 213.7            | 355.1            | 519.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 11  | 10     | 1090.9 | 0.799912      | 260.0            | 432.0            | 631.9            |                       | -                             | -                             | 31.03                         |
| 2020 | 4     | 11  | 11     | 1176.6 | 0.814527      | 264.7            | 439.8            | 643.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 11  | 12     | 1147.7 | 0.791126      | 257.1            | 427.2            | 625.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 11  | 13     | 1096   | 0.820708      | 266.7            | 443.2            | 648.4            |                       | -                             | -                             | 42.36                         |
| 2020 | 4     | 11  | 14     | 1040.9 | 0.880191      | 286.1            | 475.3            | 695.4            |                       | -                             | -                             | 144.45                        |
| 2020 | 4     | 11  | 15     | 1018.3 | 0.898587      | 292.0            | 485.2            | 709.9            |                       | -                             | -                             | 181.58                        |
| 2020 | 4     | 11  | 16     | 1071.6 | 0.894502      | 290.7            | 483.0            | 706.7            |                       | -                             | -                             | 125.06                        |
| 2020 | 4     | 11  | 17     | 1112.4 | 0.85551       | 278.0            | 462.0            | 675.9            |                       | -                             | -                             | 53.45                         |
| 2020 | 4     | 11  | 18     | 1141.9 | 0.883308      | 287.1            | 477.0            | 697.8            |                       | -                             | -                             | 45.91                         |
| 2020 | 4     | 11  | 19     | 1152.1 | 0.88019       | 286.1            | 475.3            | 695.4            |                       | -                             | -                             | 33.25                         |
| 2020 | 4     | 11  | 20     | 1162.4 | 0.890165      | 289.3            | 480.7            | 703.2            |                       | -                             | -                             | 30.83                         |
| 2020 | 4     | 11  | 21     | 1169.7 | 0.899217      | 292.2            | 485.6            | 710.4            |                       | -                             | -                             | 30.68                         |
| 2020 | 4     | 11  | 22     | 1109.7 | 0.887788      | 288.5            | 479.4            | 701.4            |                       | -                             | -                             | 81.65                         |
| 2020 | 4     | 11  | 23     | 1021.6 | 0.890734      | 289.5            | 481.0            | 703.7            |                       | -                             | -                             | 172.08                        |
| 2020 | 4     | 11  | 24     | 913.3  | 0.864634      | 281.0            | 466.9            | 683.1            |                       | -                             | 43.60                         | 259.76                        |
| 2020 | 4     | 12  | 1      | 899    | 0.86109       | 279.9            | 465.0            | 680.3            |                       | -                             | 55.99                         | 271.26                        |
| 2020 | 4     | 12  | 2      | 879.9  | 0.8389        | 272.6            | 453.0            | 662.7            |                       | -                             | 63.11                         | 272.83                        |
| 2020 | 4     | 12  | 3      | 896.5  | 0.818182      | 265.9            | 441.8            | 646.4            |                       | -                             | 35.32                         | 239.86                        |
| 2020 | 4     | 12  | 4      | 874.5  | 0.815719      | 265.1            | 440.5            | 644.4            |                       | -                             | 55.99                         | 259.92                        |
| 2020 | 4     | 12  | 5      | 904.1  | 0.778351      | 253.0            | 420.3            | 614.9            |                       | -                             | 6.21                          | 200.80                        |
| 2020 | 4     | 12  | 6      | 924.8  | 0.689855      | 224.2            | 372.5            | 545.0            |                       | -                             | -                             | 110.19                        |
| 2020 | 4     | 12  | 7      | 954.5  | 0.695642      | 226.1            | 375.6            | 549.6            |                       | -                             | -                             | 85.06                         |
| 2020 | 4     | 12  | 8      | 1026.1 | 0.763219      | 248.0            | 412.1            | 602.9            |                       | -                             | -                             | 66.84                         |
| 2020 | 4     | 12  | 9      | 1126.5 | 0.789289      | 256.5            | 426.2            | 623.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 12  | 10     | 1079.7 | 0.707338      | 229.9            | 382.0            | 558.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 12  | 11     | 1028.2 | 0.755223      | 245.4            | 407.8            | 596.6            |                       | -                             | -                             | 58.43                         |
| 2020 | 4     | 12  | 12     | 1026.2 | 0.757869      | 246.3            | 409.2            | 598.7            |                       | -                             | -                             | 62.52                         |
| 2020 | 4     | 12  | 13     | 981.9  | 0.769969      | 250.2            | 415.8            | 608.3            |                       | -                             | -                             | 116.38                        |
| 2020 | 4     | 12  | 14     | 968.5  | 0.802087      | 260.7            | 433.1            | 633.6            |                       | -                             | -                             | 155.15                        |
| 2020 | 4     | 12  | 15     | 983.7  | 0.776757      | 252.4            | 419.4            | 613.6            |                       | -                             | -                             | 119.94                        |
| 2020 | 4     | 12  | 16     | 992.4  | 0.808176      | 262.7            | 436.4            | 638.5            |                       | -                             | -                             | 136.06                        |
| 2020 | 4     | 12  | 17     | 1062.8 | 0.76253       | 247.8            | 411.8            | 602.4            |                       | -                             | -                             | 29.60                         |
| 2020 | 4     | 12  | 18     | 1058   | 0.714745      | 232.3            | 386.0            | 564.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 12  | 19     | 1063.3 | 0.632439      | 205.5            | 341.5            | 499.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 12  | 20     | 1143.8 | 0.577577      | 187.7            | 311.9            | 456.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 12  | 21     | 1129.8 | 0.489197      | 159.0            | 264.2            | 386.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 12  | 22     | 1050.1 | 0.291651      | 94.8             | 157.5            | 230.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 12  | 23     | 986.9  | 0.382582      | 124.3            | 206.6            | 302.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 12  | 24     | 874.1  | 0.416026      | 135.2            | 224.7            | 328.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 1      | 834.1  | 0.353369      | 114.8            | 190.8            | 279.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 2      | 829.8  | 0.253426      | 82.4             | 136.9            | 200.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 3      | 822.7  | 0.292508      | 95.1             | 158.0            | 231.1            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 4     | 13  | 4      | 861.3  | 0.207576      | 67.5             | 112.1            | 164.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 5      | 909.4  | 0.28876       | 93.8             | 155.9            | 228.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 6      | 1072.1 | 0.233694      | 76.0             | 126.2            | 184.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 7      | 1213.4 | 0.188845      | 61.4             | 102.0            | 149.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 8      | 1240.2 | 0.191462      | 62.2             | 103.4            | 151.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 9      | 1279.3 | 0.180697      | 58.7             | 97.6             | 142.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 10     | 1210.8 | 0.192897      | 62.7             | 104.2            | 152.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 11     | 1212.4 | 0.217887      | 70.8             | 117.7            | 172.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 12     | 1142.2 | 0.314008      | 102.1            | 169.6            | 248.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 13     | 1117.5 | 0.337556      | 109.7            | 182.3            | 266.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 14     | 1114.3 | 0.333147      | 108.3            | 179.9            | 263.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 15     | 1134.1 | 0.384086      | 124.8            | 207.4            | 303.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 16     | 1098.1 | 0.459445      | 149.3            | 248.1            | 363.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 17     | 1139.4 | 0.385139      | 125.2            | 208.0            | 304.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 18     | 1097.1 | 0.503454      | 163.6            | 271.9            | 397.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 19     | 1144.9 | 0.538386      | 175.0            | 290.7            | 425.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 20     | 1105.4 | 0.611205      | 198.6            | 330.1            | 482.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 21     | 1166   | 0.751658      | 244.3            | 405.9            | 593.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 13  | 22     | 1087.8 | 0.810696      | 263.5            | 437.8            | 640.4            |                       | -                             | -                             | 42.65                         |
| 2020 | 4     | 13  | 23     | 1016.1 | 0.808166      | 262.7            | 436.4            | 638.5            |                       | -                             | -                             | 112.35                        |
| 2020 | 4     | 13  | 24     | 951.2  | 0.766045      | 249.0            | 413.7            | 605.2            |                       | -                             | -                             | 143.98                        |
| 2020 | 4     | 14  | 1      | 882.4  | 0.794427      | 258.2            | 429.0            | 627.6            |                       | -                             | 36.59                         | 235.20                        |
| 2020 | 4     | 14  | 2      | 862.3  | 0.791397      | 257.2            | 427.4            | 625.2            |                       | -                             | 55.05                         | 252.90                        |
| 2020 | 4     | 14  | 3      | 842.3  | 0.763573      | 248.2            | 412.3            | 603.2            |                       | -                             | 60.03                         | 250.92                        |
| 2020 | 4     | 14  | 4      | 854.6  | 0.771764      | 250.8            | 416.8            | 609.7            |                       | -                             | 52.15                         | 245.09                        |
| 2020 | 4     | 14  | 5      | 949.1  | 0.819895      | 266.5            | 442.7            | 647.7            |                       | -                             | -                             | 188.62                        |
| 2020 | 4     | 14  | 6      | 1082.4 | 0.888119      | 288.6            | 479.6            | 701.6            |                       | -                             | -                             | 109.21                        |
| 2020 | 4     | 14  | 7      | 1202.1 | 0.875228      | 284.4            | 472.6            | 691.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 8      | 1303.6 | 0.702342      | 228.3            | 379.3            | 554.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 9      | 1271.7 | 0.721912      | 234.6            | 389.8            | 570.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 10     | 1186.3 | 0.693619      | 225.4            | 374.6            | 548.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 11     | 1166.4 | 0.674597      | 219.2            | 364.3            | 532.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 12     | 1162.4 | 0.554808      | 180.3            | 299.6            | 438.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 13     | 1156.9 | 0.485937      | 157.9            | 262.4            | 383.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 14     | 1138.9 | 0.393678      | 127.9            | 212.6            | 311.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 15     | 1135.6 | 0.444553      | 144.5            | 240.1            | 351.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 16     | 1166.3 | 0.436128      | 141.7            | 235.5            | 344.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 17     | 1165.7 | 0.439103      | 142.7            | 237.1            | 346.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 18     | 1162.4 | 0.394369      | 128.2            | 213.0            | 311.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 19     | 1196.9 | 0.482312      | 156.8            | 260.4            | 381.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 20     | 1182.7 | 0.308816      | 100.4            | 166.8            | 244.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 21     | 1234.5 | 0.250291      | 81.3             | 135.2            | 197.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 22     | 1160.3 | 0.351323      | 114.2            | 189.7            | 277.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 23     | 1129.5 | 0.531775      | 172.8            | 287.2            | 420.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 14  | 24     | 1092.1 | 0.526184      | 171.0            | 284.1            | 415.7            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 4     | 15  | 1      | 1021.6 | 0.613294   | 199.3         | 331.2         | 484.5         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 2      | 1017.8 | 0.708749   | 230.3         | 382.7         | 559.9         |                    | -                          | -                          | 32.11                      |
| 2020 | 4     | 15  | 3      | 1020.8 | 0.594207   | 193.1         | 320.9         | 469.4         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 4      | 1010.9 | 0.640957   | 208.3         | 346.1         | 506.4         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 5      | 1128.9 | 0.591536   | 192.2         | 319.4         | 467.3         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 6      | 1244.5 | 0.707014   | 229.8         | 381.8         | 558.5         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 7      | 1389.6 | 0.721656   | 234.5         | 389.7         | 570.1         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 8      | 1420.1 | 0.703823   | 228.7         | 380.1         | 556.0         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 9      | 1396.7 | 0.632783   | 205.7         | 341.7         | 499.9         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 10     | 1346.4 | 0.520574   | 169.2         | 281.1         | 411.3         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 11     | 1267.9 | 0.520017   | 169.0         | 280.8         | 410.8         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 12     | 1240.5 | 0.457362   | 148.6         | 247.0         | 361.3         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 13     | 1249.8 | 0.357128   | 116.1         | 192.8         | 282.1         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 14     | 1196.7 | 0.348684   | 113.3         | 188.3         | 275.5         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 15     | 1222.2 | 0.373769   | 121.5         | 201.8         | 295.3         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 16     | 1211.2 | 0.337323   | 109.6         | 182.2         | 266.5         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 17     | 1242.2 | 0.305277   | 99.2          | 164.8         | 241.2         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 18     | 1254.1 | 0.21231    | 69.0          | 114.6         | 167.7         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 19     | 1262.1 | 0.157992   | 51.3          | 85.3          | 124.8         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 20     | 1221.4 | 0.084148   | 27.3          | 45.4          | 66.5          |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 21     | 1213.8 | 0.144766   | 47.0          | 78.2          | 114.4         |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 22     | 1169.2 | 0.115274   | 37.5          | 62.2          | 91.1          |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 23     | 1098.8 | 0.114984   | 37.4          | 62.1          | 90.8          |                    | -                          | -                          | -                          |
| 2020 | 4     | 15  | 24     | 1026.6 | 0.097252   | 31.6          | 52.5          | 76.8          |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 1      | 974.2  | 0.075042   | 24.4          | 40.5          | 59.3          |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 2      | 947.4  | 0.100697   | 32.7          | 54.4          | 79.6          |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 3      | 932.2  | 0.08725    | 28.4          | 47.1          | 68.9          |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 4      | 946.7  | 0.108771   | 35.4          | 58.7          | 85.9          |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 5      | 1025.3 | 0.075538   | 24.5          | 40.8          | 59.7          |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 6      | 1157.3 | 0.058945   | 19.2          | 31.8          | 46.6          |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 7      | 1304.8 | 0.029348   | 9.5           | 15.8          | 23.2          |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 8      | 1351   | 0.015689   | 5.1           | 8.5           | 12.4          |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 9      | 1345.4 | 0.015006   | 4.9           | 8.1           | 11.9          |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 10     | 1319.2 | 0.018954   | 6.2           | 10.2          | 15.0          |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 11     | 1313.2 | 0.029639   | 9.6           | 16.0          | 23.4          |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 12     | 1275.4 | 0.056205   | 18.3          | 30.4          | 44.4          |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 13     | 1323.4 | 0.10324    | 33.6          | 55.7          | 81.6          |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 14     | 1229.8 | 0.16008    | 52.0          | 86.4          | 126.5         |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 15     | 1203.5 | 0.201691   | 65.5          | 108.9         | 159.3         |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 16     | 1249.4 | 0.286249   | 93.0          | 154.6         | 226.1         |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 17     | 1245.8 | 0.354698   | 115.3         | 191.5         | 280.2         |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 18     | 1226.2 | 0.328888   | 106.9         | 177.6         | 259.8         |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 19     | 1254.9 | 0.504155   | 163.9         | 272.2         | 398.3         |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 20     | 1291.1 | 0.574954   | 186.9         | 310.5         | 454.2         |                    | -                          | -                          | -                          |
| 2020 | 4     | 16  | 21     | 1314.4 | 0.578118   | 187.9         | 312.2         | 456.7         |                    | -                          | -                          | -                          |



| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 4     | 16  | 22     | 1198.8 | 0.650821      | 211.5            | 351.4            | 514.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 16  | 23     | 1150.3 | 0.559667      | 181.9            | 302.2            | 442.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 16  | 24     | 1068.5 | 0.537091      | 174.6            | 290.0            | 424.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 17  | 1      | 1002.2 | 0.65292       | 212.2            | 352.6            | 515.8            |                       | -                             | -                             | 3.61                          |
| 2020 | 4     | 17  | 2      | 974.7  | 0.720962      | 234.3            | 389.3            | 569.6            |                       | -                             | -                             | 84.86                         |
| 2020 | 4     | 17  | 3      | 1001.8 | 0.71127       | 231.2            | 384.1            | 561.9            |                       | -                             | -                             | 50.10                         |
| 2020 | 4     | 17  | 4      | 997.4  | 0.756425      | 245.8            | 408.5            | 597.6            |                       | -                             | -                             | 90.18                         |
| 2020 | 4     | 17  | 5      | 1065.9 | 0.792905      | 257.7            | 428.2            | 626.4            |                       | -                             | -                             | 50.50                         |
| 2020 | 4     | 17  | 6      | 1208   | 0.848684      | 275.8            | 458.3            | 670.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 17  | 7      | 1347.9 | 0.854155      | 277.6            | 461.2            | 674.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 17  | 8      | 1429.4 | 0.867312      | 281.9            | 468.3            | 685.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 17  | 9      | 1405.9 | 0.882055      | 286.7            | 476.3            | 696.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 17  | 10     | 1371.9 | 0.886358      | 288.1            | 478.6            | 700.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 17  | 11     | 1304.4 | 0.901387      | 293.0            | 486.7            | 712.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 17  | 12     | 1321   | 0.856245      | 278.3            | 462.4            | 676.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 17  | 13     | 1285.8 | 0.886457      | 288.1            | 478.7            | 700.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 17  | 14     | 1295.3 | 0.906361      | 294.6            | 489.4            | 716.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 17  | 15     | 1216.6 | 0.921991      | 299.6            | 497.9            | 728.4            |                       | -                             | -                             | 1.77                          |
| 2020 | 4     | 17  | 16     | 1241.9 | 0.915472      | 297.5            | 494.4            | 723.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 17  | 17     | 1227.9 | 0.905784      | 294.4            | 489.1            | 715.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 17  | 18     | 1213.2 | 0.938552      | 305.0            | 506.8            | 741.5            |                       | -                             | -                             | 18.26                         |
| 2020 | 4     | 17  | 19     | 1203   | 0.923002      | 300.0            | 498.4            | 729.2            |                       | -                             | -                             | 16.17                         |
| 2020 | 4     | 17  | 20     | 1195.7 | 0.911695      | 296.3            | 492.3            | 720.2            |                       | -                             | -                             | 14.54                         |
| 2020 | 4     | 17  | 21     | 1215.6 | 0.889079      | 289.0            | 480.1            | 702.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 17  | 22     | 1148.3 | 0.863798      | 280.7            | 466.5            | 682.4            |                       | -                             | -                             | 24.10                         |
| 2020 | 4     | 17  | 23     | 1174.3 | 0.795066      | 258.4            | 429.3            | 628.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 17  | 24     | 1091.3 | 0.723536      | 235.1            | 390.7            | 571.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 1      | 1006   | 0.588233      | 191.2            | 317.6            | 464.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 2      | 978.7  | 0.528584      | 171.8            | 285.4            | 417.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 3      | 967.6  | 0.557417      | 181.2            | 301.0            | 440.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 4      | 973.4  | 0.615197      | 199.9            | 332.2            | 486.0            |                       | -                             | -                             | 2.61                          |
| 2020 | 4     | 18  | 5      | 987.8  | 0.522054      | 169.7            | 281.9            | 412.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 6      | 1037.1 | 0.51007       | 165.8            | 275.4            | 403.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 7      | 1126   | 0.515122      | 167.4            | 278.2            | 406.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 8      | 1266.6 | 0.635868      | 206.7            | 343.4            | 502.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 9      | 1257.4 | 0.746887      | 242.7            | 403.3            | 590.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 10     | 1285.1 | 0.746839      | 242.7            | 403.3            | 590.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 11     | 1295   | 0.732177      | 238.0            | 395.4            | 578.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 12     | 1189.2 | 0.710942      | 231.1            | 383.9            | 561.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 13     | 1147.7 | 0.767578      | 249.5            | 414.5            | 606.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 14     | 1105.6 | 0.74781       | 243.0            | 403.8            | 590.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 15     | 1152.8 | 0.756865      | 246.0            | 408.7            | 597.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 16     | 1268.7 | 0.620266      | 201.6            | 334.9            | 490.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 17     | 1309.4 | 0.5189        | 168.6            | 280.2            | 409.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 18     | 1277.7 | 0.460241      | 149.6            | 248.5            | 363.6            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 4     | 18  | 19     | 1238.1 | 0.514749      | 167.3            | 278.0            | 406.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 20     | 1239.3 | 0.592147      | 192.4            | 319.8            | 467.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 21     | 1189.8 | 0.544505      | 177.0            | 294.0            | 430.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 22     | 1182.7 | 0.45723       | 148.6            | 246.9            | 361.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 23     | 1107.1 | 0.526974      | 171.3            | 284.6            | 416.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 18  | 24     | 1011.6 | 0.519052      | 168.7            | 280.3            | 410.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 1      | 961.3  | 0.43875       | 142.6            | 236.9            | 346.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 2      | 949    | 0.359308      | 116.8            | 194.0            | 283.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 3      | 938.7  | 0.388985      | 126.4            | 210.1            | 307.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 4      | 944.7  | 0.427264      | 138.9            | 230.7            | 337.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 5      | 975.1  | 0.372652      | 121.1            | 201.2            | 294.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 6      | 986.7  | 0.308111      | 100.1            | 166.4            | 243.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 7      | 1066   | 0.439219      | 142.7            | 237.2            | 347.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 8      | 1200.7 | 0.363855      | 118.3            | 196.5            | 287.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 9      | 1245   | 0.264551      | 86.0             | 142.9            | 209.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 10     | 1236   | 0.178259      | 57.9             | 96.3             | 140.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 11     | 1247.5 | 0.087008      | 28.3             | 47.0             | 68.7             |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 12     | 1323.7 | 0.054517      | 17.7             | 29.4             | 43.1             |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 13     | 1263.6 | 0.096836      | 31.5             | 52.3             | 76.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 14     | 1250.8 | 0.152061      | 49.4             | 82.1             | 120.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 15     | 1276.3 | 0.123131      | 40.0             | 66.5             | 97.3             |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 16     | 1353   | 0.125362      | 40.7             | 67.7             | 99.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 17     | 1314.4 | 0.125778      | 40.9             | 67.9             | 99.4             |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 18     | 1331   | 0.145274      | 47.2             | 78.4             | 114.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 19     | 1357.1 | 0.108192      | 35.2             | 58.4             | 85.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 20     | 1319.6 | 0.14154       | 46.0             | 76.4             | 111.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 21     | 1208.2 | 0.091362      | 29.7             | 49.3             | 72.2             |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 22     | 1193.2 | 0.062619      | 20.4             | 33.8             | 49.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 23     | 1067.8 | 0.132664      | 43.1             | 71.6             | 104.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 19  | 24     | 990.1  | 0.238509      | 77.5             | 128.8            | 188.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 1      | 965.1  | 0.21546       | 70.0             | 116.3            | 170.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 2      | 963.6  | 0.287589      | 93.5             | 155.3            | 227.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 3      | 967    | 0.162875      | 52.9             | 88.0             | 128.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 4      | 998.5  | 0.111263      | 36.2             | 60.1             | 87.9             |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 5      | 1036.5 | 0.076106      | 24.7             | 41.1             | 60.1             |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 6      | 1159.1 | 0.101237      | 32.9             | 54.7             | 80.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 7      | 1304   | 0.101157      | 32.9             | 54.6             | 79.9             |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 8      | 1394.4 | 0.097626      | 31.7             | 52.7             | 77.1             |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 9      | 1445.4 | 0.09237       | 30.0             | 49.9             | 73.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 10     | 1443.2 | 0.072578      | 23.6             | 39.2             | 57.3             |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 11     | 1376.8 | 0.170879      | 55.5             | 92.3             | 135.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 12     | 1360.7 | 0.143203      | 46.5             | 77.3             | 113.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 13     | 1331.2 | 0.099575      | 32.4             | 53.8             | 78.7             |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 14     | 1329.9 | 0.167484      | 54.4             | 90.4             | 132.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 15     | 1328.5 | 0.211705      | 68.8             | 114.3            | 167.2            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 4     | 20  | 16     | 1382.1 | 0.268907      | 87.4             | 145.2            | 212.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 17     | 1451.7 | 0.246129      | 80.0             | 132.9            | 194.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 18     | 1393   | 0.298796      | 97.1             | 161.3            | 236.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 19     | 1351.9 | 0.180591      | 58.7             | 97.5             | 142.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 20     | 1340.8 | 0.176588      | 57.4             | 95.4             | 139.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 21     | 1325.4 | 0.194981      | 63.4             | 105.3            | 154.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 22     | 1211.5 | 0.138721      | 45.1             | 74.9             | 109.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 23     | 1179.7 | 0.103029      | 33.5             | 55.6             | 81.4             |                       | -                             | -                             | -                             |
| 2020 | 4     | 20  | 24     | 1101.3 | 0.065691      | 21.3             | 35.5             | 51.9             |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 1      | 1036.6 | 0.059611      | 19.4             | 32.2             | 47.1             |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 2      | 1002.8 | 0.044364      | 14.4             | 24.0             | 35.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 3      | 1000.3 | 0.071104      | 23.1             | 38.4             | 56.2             |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 4      | 1019.5 | 0.054833      | 17.8             | 29.6             | 43.3             |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 5      | 1060.8 | 0.028769      | 9.3              | 15.5             | 22.7             |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 6      | 1185.3 | 0.033487      | 10.9             | 18.1             | 26.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 7      | 1320.1 | 0.054059      | 17.6             | 29.2             | 42.7             |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 8      | 1422.8 | 0.05917       | 19.2             | 32.0             | 46.7             |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 9      | 1385   | 0.064632      | 21.0             | 34.9             | 51.1             |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 10     | 1309.4 | 0.096191      | 31.3             | 51.9             | 76.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 11     | 1286   | 0.059926      | 19.5             | 32.4             | 47.3             |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 12     | 1318   | 0.120815      | 39.3             | 65.2             | 95.4             |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 13     | 1270.3 | 0.104142      | 33.8             | 56.2             | 82.3             |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 14     | 1268.6 | 0.204349      | 66.4             | 110.3            | 161.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 15     | 1281.3 | 0.150506      | 48.9             | 81.3             | 118.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 16     | 1310   | 0.255102      | 82.9             | 137.8            | 201.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 17     | 1339.6 | 0.306644      | 99.7             | 165.6            | 242.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 18     | 1314.3 | 0.343882      | 111.8            | 185.7            | 271.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 19     | 1303.3 | 0.409171      | 133.0            | 221.0            | 323.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 20     | 1321.5 | 0.416911      | 135.5            | 225.1            | 329.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 21     | 1283.9 | 0.367241      | 119.4            | 198.3            | 290.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 22     | 1173.5 | 0.35503       | 115.4            | 191.7            | 280.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 23     | 1168.8 | 0.523276      | 170.1            | 282.6            | 413.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 21  | 24     | 1079.6 | 0.476131      | 154.7            | 257.1            | 376.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 1      | 997.1  | 0.503798      | 163.7            | 272.1            | 398.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 2      | 960.8  | 0.488984      | 158.9            | 264.1            | 386.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 3      | 979.2  | 0.550738      | 179.0            | 297.4            | 435.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 4      | 979.4  | 0.540827      | 175.8            | 292.0            | 427.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 5      | 1064   | 0.514823      | 167.3            | 278.0            | 406.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 6      | 1207.7 | 0.382718      | 124.4            | 206.7            | 302.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 7      | 1337.9 | 0.332501      | 108.1            | 179.6            | 262.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 8      | 1370.9 | 0.299342      | 97.3             | 161.6            | 236.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 9      | 1323.6 | 0.256278      | 83.3             | 138.4            | 202.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 10     | 1268.4 | 0.307148      | 99.8             | 165.9            | 242.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 11     | 1233.5 | 0.358983      | 116.7            | 193.9            | 283.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 12     | 1238.7 | 0.456154      | 148.3            | 246.3            | 360.4            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 4     | 22  | 13     | 1188.5 | 0.511105      | 166.1            | 276.0            | 403.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 14     | 1163.8 | 0.424847      | 138.1            | 229.4            | 335.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 15     | 1119.8 | 0.35716       | 116.1            | 192.9            | 282.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 16     | 1138.3 | 0.275755      | 89.6             | 148.9            | 217.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 17     | 1168.2 | 0.193309      | 62.8             | 104.4            | 152.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 18     | 1129.6 | 0.098205      | 31.9             | 53.0             | 77.6             |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 19     | 1098.5 | 0.07848       | 25.5             | 42.4             | 62.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 20     | 1142.7 | 0.078205      | 25.4             | 42.2             | 61.8             |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 21     | 1166.3 | 0.103729      | 33.7             | 56.0             | 81.9             |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 22     | 1107   | 0.162964      | 53.0             | 88.0             | 128.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 23     | 1067.1 | 0.223394      | 72.6             | 120.6            | 176.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 22  | 24     | 972.9  | 0.330871      | 107.5            | 178.7            | 261.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 1      | 923.8  | 0.394574      | 128.2            | 213.1            | 311.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 2      | 865    | 0.461806      | 150.1            | 249.4            | 364.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 3      | 877.5  | 0.380868      | 123.8            | 205.7            | 300.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 4      | 879.1  | 0.367916      | 119.6            | 198.7            | 290.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 5      | 957.4  | 0.371684      | 120.8            | 200.7            | 293.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 6      | 1099.4 | 0.309694      | 100.7            | 167.2            | 244.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 7      | 1232.4 | 0.278755      | 90.6             | 150.5            | 220.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 8      | 1241.3 | 0.222894      | 72.4             | 120.4            | 176.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 9      | 1228.2 | 0.202796      | 65.9             | 109.5            | 160.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 10     | 1152.1 | 0.236203      | 76.8             | 127.5            | 186.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 11     | 1149.1 | 0.220186      | 71.6             | 118.9            | 173.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 12     | 1116.4 | 0.348364      | 113.2            | 188.1            | 275.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 13     | 1096.6 | 0.619825      | 201.4            | 334.7            | 489.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 14     | 1052.8 | 0.743676      | 241.7            | 401.6            | 587.5            |                       | -                             | -                             | 24.70                         |
| 2020 | 4     | 23  | 15     | 1078.1 | 0.763681      | 248.2            | 412.4            | 603.3            |                       | -                             | -                             | 15.21                         |
| 2020 | 4     | 23  | 16     | 1129.1 | 0.808208      | 262.7            | 436.4            | 638.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 17     | 1142.1 | 0.821239      | 266.9            | 443.5            | 648.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 23  | 18     | 1061.5 | 0.843409      | 274.1            | 455.4            | 666.3            |                       | -                             | -                             | 94.79                         |
| 2020 | 4     | 23  | 19     | 1077.4 | 0.816174      | 265.3            | 440.7            | 644.8            |                       | -                             | -                             | 57.38                         |
| 2020 | 4     | 23  | 20     | 1118.7 | 0.814897      | 264.8            | 440.0            | 643.8            |                       | -                             | -                             | 15.07                         |
| 2020 | 4     | 23  | 21     | 1110.1 | 0.855194      | 277.9            | 461.8            | 675.6            |                       | -                             | -                             | 55.50                         |
| 2020 | 4     | 23  | 22     | 1013.8 | 0.893031      | 290.2            | 482.2            | 705.5            |                       | -                             | -                             | 181.69                        |
| 2020 | 4     | 23  | 23     | 987.2  | 0.916237      | 297.8            | 494.8            | 723.8            |                       | -                             | -                             | 226.63                        |
| 2020 | 4     | 23  | 24     | 922    | 0.891783      | 289.8            | 481.6            | 704.5            |                       | -                             | 49.56                         | 272.51                        |
| 2020 | 4     | 24  | 1      | 841.8  | 0.891745      | 289.8            | 481.5            | 704.5            |                       | -                             | 129.74                        | 352.68                        |
| 2020 | 4     | 24  | 2      | 835.5  | 0.876625      | 284.9            | 473.4            | 692.5            |                       | -                             | 127.88                        | 347.03                        |
| 2020 | 4     | 24  | 3      | 841.4  | 0.870016      | 282.8            | 469.8            | 687.3            |                       | -                             | 118.41                        | 335.91                        |
| 2020 | 4     | 24  | 4      | 850.8  | 0.830981      | 270.1            | 448.7            | 656.5            |                       | -                             | 87.93                         | 295.68                        |
| 2020 | 4     | 24  | 5      | 946.5  | 0.835021      | 271.4            | 450.9            | 659.7            |                       | -                             | -                             | 203.17                        |
| 2020 | 4     | 24  | 6      | 1064.4 | 0.799018      | 259.7            | 431.5            | 631.2            |                       | -                             | -                             | 56.82                         |
| 2020 | 4     | 24  | 7      | 1153.2 | 0.751925      | 244.4            | 406.0            | 594.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 8      | 1275.8 | 0.727033      | 236.3            | 392.6            | 574.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 9      | 1245.4 | 0.57483       | 186.8            | 310.4            | 454.1            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 4     | 24  | 10     | 1205.6 | 0.490565      | 159.4            | 264.9            | 387.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 11     | 1188.1 | 0.417755      | 135.8            | 225.6            | 330.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 12     | 1143.4 | 0.297109      | 96.6             | 160.4            | 234.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 13     | 1110.3 | 0.277837      | 90.3             | 150.0            | 219.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 14     | 1060.4 | 0.223492      | 72.6             | 120.7            | 176.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 15     | 1059.1 | 0.301405      | 98.0             | 162.8            | 238.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 16     | 1081.8 | 0.219983      | 71.5             | 118.8            | 173.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 17     | 1121.6 | 0.153911      | 50.0             | 83.1             | 121.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 18     | 1040.7 | 0.18862       | 61.3             | 101.9            | 149.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 19     | 988    | 0.162596      | 52.8             | 87.8             | 128.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 20     | 1013.8 | 0.125938      | 40.9             | 68.0             | 99.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 21     | 1022.3 | 0.103336      | 33.6             | 55.8             | 81.6             |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 22     | 984.7  | 0.064578      | 21.0             | 34.9             | 51.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 23     | 996.6  | 0.074773      | 24.3             | 40.4             | 59.1             |                       | -                             | -                             | -                             |
| 2020 | 4     | 24  | 24     | 902.7  | 0.074072      | 24.1             | 40.0             | 58.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 1      | 857.4  | 0.072982      | 23.7             | 39.4             | 57.7             |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 2      | 824.5  | 0.049402      | 16.1             | 26.7             | 39.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 3      | 837.5  | 0.028293      | 9.2              | 15.3             | 22.4             |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 4      | 839.2  | 0.023456      | 7.6              | 12.7             | 18.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 5      | 852.8  | 0.023644      | 7.7              | 12.8             | 18.7             |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 6      | 936.9  | 0.018399      | 6.0              | 9.9              | 14.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 7      | 1024.3 | 0.00918       | 3.0              | 5.0              | 7.3              |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 8      | 1106.7 | 0.008499      | 2.8              | 4.6              | 6.7              |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 9      | 1174.3 | 0.008194      | 2.7              | 4.4              | 6.5              |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 10     | 1152.1 | 0.00895       | 2.9              | 4.8              | 7.1              |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 11     | 1127.2 | 0.018073      | 5.9              | 9.8              | 14.3             |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 12     | 1105.2 | 0.023608      | 7.7              | 12.7             | 18.6             |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 13     | 1020.9 | 0.028766      | 9.3              | 15.5             | 22.7             |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 14     | 974.6  | 0.044298      | 14.4             | 23.9             | 35.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 15     | 970.6  | 0.053493      | 17.4             | 28.9             | 42.3             |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 16     | 978.4  | 0.054956      | 17.9             | 29.7             | 43.4             |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 17     | 991.8  | 0.10686       | 34.7             | 57.7             | 84.4             |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 18     | 1034.5 | 0.231062      | 75.1             | 124.8            | 182.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 19     | 1031.5 | 0.279317      | 90.8             | 150.8            | 220.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 20     | 1012.1 | 0.31353       | 101.9            | 169.3            | 247.7            |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 21     | 1039.6 | 0.367299      | 119.4            | 198.3            | 290.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 22     | 1029.3 | 0.457098      | 148.6            | 246.8            | 361.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 23     | 998.7  | 0.417186      | 135.6            | 225.3            | 329.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 25  | 24     | 915.2  | 0.431348      | 140.2            | 232.9            | 340.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 26  | 1      | 874.4  | 0.405367      | 131.7            | 218.9            | 320.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 26  | 2      | 838.9  | 0.348879      | 113.4            | 188.4            | 275.6            |                       | -                             | -                             | -                             |
| 2020 | 4     | 26  | 3      | 830.6  | 0.330406      | 107.4            | 178.4            | 261.0            |                       | -                             | -                             | -                             |
| 2020 | 4     | 26  | 4      | 850    | 0.239768      | 77.9             | 129.5            | 189.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 26  | 5      | 858.7  | 0.223162      | 72.5             | 120.5            | 176.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 26  | 6      | 873.7  | 0.25536       | 83.0             | 137.9            | 201.7            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 4     | 26  | 7      | 942.3  | 0.247717   | 80.5          | 133.8         | 195.7         |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 8      | 1060.6 | 0.276485   | 89.9          | 149.3         | 218.4         |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 9      | 1152.7 | 0.247635   | 80.5          | 133.7         | 195.6         |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 10     | 1184.8 | 0.151254   | 49.2          | 81.7          | 119.5         |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 11     | 1138.2 | 0.105143   | 34.2          | 56.8          | 83.1          |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 12     | 1107.3 | 0.096568   | 31.4          | 52.1          | 76.3          |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 13     | 1044.9 | 0.066476   | 21.6          | 35.9          | 52.5          |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 14     | 1044.5 | 0.04591    | 14.9          | 24.8          | 36.3          |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 15     | 1071.2 | 0.022199   | 7.2           | 12.0          | 17.5          |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 16     | 1049.4 | 0.012299   | 4.0           | 6.6           | 9.7           |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 17     | 1097.2 | 0.014768   | 4.8           | 8.0           | 11.7          |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 18     | 1049.1 | 0.0158     | 5.1           | 8.5           | 12.5          |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 19     | 1055.5 | 0.015153   | 4.9           | 8.2           | 12.0          |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 20     | 1116.7 | 0.0235     | 7.6           | 12.7          | 18.6          |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 21     | 1167.5 | 0.038974   | 12.7          | 21.0          | 30.8          |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 22     | 1066.4 | 0.072191   | 23.5          | 39.0          | 57.0          |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 23     | 949.9  | 0.116977   | 38.0          | 63.2          | 92.4          |                    | -                          | -                          | -                          |
| 2020 | 4     | 26  | 24     | 859.1  | 0.075322   | 24.5          | 40.7          | 59.5          |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 1      | 832.5  | 0.069306   | 22.5          | 37.4          | 54.8          |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 2      | 822.1  | 0.103855   | 33.8          | 56.1          | 82.0          |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 3      | 817    | 0.152591   | 49.6          | 82.4          | 120.5         |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 4      | 836.2  | 0.17171    | 55.8          | 92.7          | 135.7         |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 5      | 901.1  | 0.299423   | 97.3          | 161.7         | 236.5         |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 6      | 1054.3 | 0.474276   | 154.1         | 256.1         | 374.7         |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 7      | 1204.7 | 0.551143   | 179.1         | 297.6         | 435.4         |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 8      | 1298.1 | 0.643154   | 209.0         | 347.3         | 508.1         |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 9      | 1247.9 | 0.595405   | 193.5         | 321.5         | 470.4         |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 10     | 1189.4 | 0.492017   | 159.9         | 265.7         | 388.7         |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 11     | 1164.6 | 0.132883   | 43.2          | 71.8          | 105.0         |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 12     | 1160.4 | 0.197391   | 64.2          | 106.6         | 155.9         |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 13     | 1162.1 | 0.204181   | 66.4          | 110.3         | 161.3         |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 14     | 1127.9 | 0.116012   | 37.7          | 62.6          | 91.6          |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 15     | 1102.3 | 0.125205   | 40.7          | 67.6          | 98.9          |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 16     | 1105.7 | 0.141559   | 46.0          | 76.4          | 111.8         |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 17     | 1153.5 | 0.093633   | 30.4          | 50.6          | 74.0          |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 18     | 1141.4 | 0.071202   | 23.1          | 38.4          | 56.2          |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 19     | 1128.9 | 0.085643   | 27.8          | 46.2          | 67.7          |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 20     | 1134.5 | 0.057189   | 18.6          | 30.9          | 45.2          |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 21     | 1143.7 | 0.076245   | 24.8          | 41.2          | 60.2          |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 22     | 1047.2 | 0.167334   | 54.4          | 90.4          | 132.2         |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 23     | 985.6  | 0.229879   | 74.7          | 124.1         | 181.6         |                    | -                          | -                          | -                          |
| 2020 | 4     | 27  | 24     | 893.7  | 0.323969   | 105.3         | 174.9         | 255.9         |                    | -                          | -                          | -                          |
| 2020 | 4     | 28  | 1      | 830.1  | 0.381277   | 123.9         | 205.9         | 301.2         |                    | -                          | -                          | -                          |
| 2020 | 4     | 28  | 2      | 840.6  | 0.550624   | 179.0         | 297.3         | 435.0         |                    | -                          | -                          | 84.39                      |
| 2020 | 4     | 28  | 3      | 823.3  | 0.653311   | 212.3         | 352.8         | 516.1         |                    | -                          | 19.49                      | 182.82                     |

| Year | Month | Day | Period | Load   | Wind     | Wind [MW] | Wind [MW] | Wind [MW] | Min Steam [MW] | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|----------|-----------|-----------|-----------|----------------|-------------------------------|-------------------------------|-------------------------------|
|      |       |     |        |        | Shape    | 325       | 540       | 790       |                |                               |                               |                               |
| 2020 | 4     | 28  | 4      | 852    | 0.718351 | 233.5     | 387.9     | 567.5     |                | -                             | 25.91                         | 205.50                        |
| 2020 | 4     | 28  | 5      | 887.7  | 0.710528 | 230.9     | 383.7     | 561.3     |                | -                             | -                             | 163.62                        |
| 2020 | 4     | 28  | 6      | 1007.1 | 0.73476  | 238.8     | 396.8     | 580.5     |                | -                             | -                             | 63.36                         |
| 2020 | 4     | 28  | 7      | 1174   | 0.781151 | 253.9     | 421.8     | 617.1     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 8      | 1258.7 | 0.786984 | 255.8     | 425.0     | 621.7     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 9      | 1280.4 | 0.772544 | 251.1     | 417.2     | 610.3     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 10     | 1274.7 | 0.7846   | 255.0     | 423.7     | 619.8     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 11     | 1261.5 | 0.757859 | 246.3     | 409.2     | 598.7     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 12     | 1248.4 | 0.762363 | 247.8     | 411.7     | 602.3     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 13     | 1278.8 | 0.771743 | 250.8     | 416.7     | 609.7     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 14     | 1227.9 | 0.733745 | 238.5     | 396.2     | 579.7     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 15     | 1225   | 0.680231 | 221.1     | 367.3     | 537.4     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 16     | 1266.4 | 0.786551 | 255.6     | 424.7     | 621.4     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 17     | 1252.1 | 0.863564 | 280.7     | 466.3     | 682.2     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 18     | 1253.6 | 0.856957 | 278.5     | 462.8     | 677.0     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 19     | 1319.2 | 0.795168 | 258.4     | 429.4     | 628.2     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 20     | 1269.1 | 0.847477 | 275.4     | 457.6     | 669.5     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 21     | 1282.4 | 0.866851 | 281.7     | 468.1     | 684.8     |                | -                             | -                             | -                             |
| 2020 | 4     | 28  | 22     | 1169.5 | 0.860777 | 279.8     | 464.8     | 680.0     |                | -                             | -                             | 0.51                          |
| 2020 | 4     | 28  | 23     | 1078.1 | 0.917337 | 298.1     | 495.4     | 724.7     |                | -                             | -                             | 136.60                        |
| 2020 | 4     | 28  | 24     | 991.6  | 0.910688 | 296.0     | 491.8     | 719.4     |                | -                             | -                             | 217.84                        |
| 2020 | 4     | 29  | 1      | 926.8  | 0.867772 | 282.0     | 468.6     | 685.5     |                | -                             | 31.80                         | 248.74                        |
| 2020 | 4     | 29  | 2      | 885.7  | 0.849981 | 276.2     | 459.0     | 671.5     |                | -                             | 63.29                         | 275.79                        |
| 2020 | 4     | 29  | 3      | 884.7  | 0.788301 | 256.2     | 425.7     | 622.8     |                | -                             | 30.98                         | 228.06                        |
| 2020 | 4     | 29  | 4      | 890.3  | 0.750033 | 243.8     | 405.0     | 592.5     |                | -                             | 4.72                          | 192.23                        |
| 2020 | 4     | 29  | 5      | 952.5  | 0.719336 | 233.8     | 388.4     | 568.3     |                | -                             | -                             | 105.78                        |
| 2020 | 4     | 29  | 6      | 1079.9 | 0.570585 | 185.4     | 308.1     | 450.8     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 7      | 1238.4 | 0.672627 | 218.6     | 363.2     | 531.4     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 8      | 1287.2 | 0.712223 | 231.5     | 384.6     | 562.7     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 9      | 1273.4 | 0.624543 | 203.0     | 337.3     | 493.4     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 10     | 1276.5 | 0.45366  | 147.4     | 245.0     | 358.4     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 11     | 1225.4 | 0.485555 | 157.8     | 262.2     | 383.6     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 12     | 1206   | 0.345234 | 112.2     | 186.4     | 272.7     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 13     | 1143.3 | 0.344149 | 111.8     | 185.8     | 271.9     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 14     | 1131.7 | 0.322572 | 104.8     | 174.2     | 254.8     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 15     | 1169.7 | 0.28316  | 92.0      | 152.9     | 223.7     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 16     | 1197.2 | 0.242639 | 78.9      | 131.0     | 191.7     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 17     | 1238.2 | 0.26429  | 85.9      | 142.7     | 208.8     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 18     | 1185.8 | 0.253582 | 82.4      | 136.9     | 200.3     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 19     | 1174.1 | 0.244088 | 79.3      | 131.8     | 192.8     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 20     | 1182.7 | 0.19569  | 63.6      | 105.7     | 154.6     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 21     | 1253.7 | 0.195927 | 63.7      | 105.8     | 154.8     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 22     | 1144.3 | 0.14897  | 48.4      | 80.4      | 117.7     |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 23     | 1117.1 | 0.12462  | 40.5      | 67.3      | 98.5      |                | -                             | -                             | -                             |
| 2020 | 4     | 29  | 24     | 1005.3 | 0.099617 | 32.4      | 53.8      | 78.7      |                | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 4     | 30  | 1      | 944.8  | 0.09369       | 30.4             | 50.6             | 74.0             |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 2      | 905.6  | 0.079164      | 25.7             | 42.7             | 62.5             |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 3      | 906.3  | 0.056528      | 18.4             | 30.5             | 44.7             |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 4      | 910.5  | 0.067888      | 22.1             | 36.7             | 53.6             |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 5      | 985.8  | 0.066211      | 21.5             | 35.8             | 52.3             |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 6      | 1098.9 | 0.074368      | 24.2             | 40.2             | 58.8             |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 7      | 1219.6 | 0.077321      | 25.1             | 41.8             | 61.1             |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 8      | 1296.6 | 0.053655      | 17.4             | 29.0             | 42.4             |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 9      | 1249.7 | 0.087757      | 28.5             | 47.4             | 69.3             |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 10     | 1254.7 | 0.246905      | 80.2             | 133.3            | 195.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 11     | 1228.5 | 0.403664      | 131.2            | 218.0            | 318.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 12     | 1261.6 | 0.562978      | 183.0            | 304.0            | 444.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 13     | 1173.1 | 0.602445      | 195.8            | 325.3            | 475.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 14     | 1124.8 | 0.582646      | 189.4            | 314.6            | 460.3            |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 15     | 1164.9 | 0.619552      | 201.4            | 334.6            | 489.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 16     | 1131.7 | 0.697684      | 226.7            | 376.7            | 551.2            |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 17     | 1258.4 | 0.681105      | 221.4            | 367.8            | 538.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 18     | 1230.3 | 0.657939      | 213.8            | 355.3            | 519.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 19     | 1210.7 | 0.644387      | 209.4            | 348.0            | 509.1            |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 20     | 1113.4 | 0.642967      | 209.0            | 347.2            | 507.9            |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 21     | 1161.6 | 0.658842      | 214.1            | 355.8            | 520.5            |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 22     | 1075.4 | 0.678947      | 220.7            | 366.6            | 536.4            |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 23     | 1050.5 | 0.647788      | 210.5            | 349.8            | 511.8            |                       | -                             | -                             | -                             |
| 2020 | 4     | 30  | 24     | 989.6  | 0.533974      | 173.5            | 288.3            | 421.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 1      | 920.7  | 0.487788      | 158.5            | 263.4            | 385.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 2      | 908.3  | 0.528332      | 171.7            | 285.3            | 417.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 3      | 888.1  | 0.469739      | 152.7            | 253.7            | 371.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 4      | 930.6  | 0.5204        | 169.1            | 281.0            | 411.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 5      | 974.8  | 0.546547      | 177.6            | 295.1            | 431.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 6      | 1086.2 | 0.514094      | 167.1            | 277.6            | 406.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 7      | 1211.9 | 0.437614      | 142.2            | 236.3            | 345.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 8      | 1295.3 | 0.509618      | 165.6            | 275.2            | 402.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 9      | 1323.2 | 0.543036      | 176.5            | 293.2            | 429.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 10     | 1276.3 | 0.629762      | 204.7            | 340.1            | 497.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 11     | 1203.1 | 0.591579      | 192.3            | 319.5            | 467.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 12     | 1249.6 | 0.577144      | 187.6            | 311.7            | 455.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 13     | 1159.8 | 0.549948      | 178.7            | 297.0            | 434.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 14     | 1151   | 0.55265       | 179.6            | 298.4            | 436.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 15     | 1137.8 | 0.565258      | 183.7            | 305.2            | 446.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 16     | 1125.4 | 0.567643      | 184.5            | 306.5            | 448.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 17     | 1151.1 | 0.537048      | 174.5            | 290.0            | 424.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 18     | 1120   | 0.46717       | 151.8            | 252.3            | 369.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 19     | 1098.9 | 0.4597        | 149.4            | 248.2            | 363.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 20     | 1115.7 | 0.410707      | 133.5            | 221.8            | 324.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 1   | 21     | 1103.9 | 0.460349      | 149.6            | 248.6            | 363.7            |                       | -                             | -                             | -                             |



| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 5     | 1   | 22     | 1054.1 | 0.450222   | 146.3         | 243.1         | 355.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 1   | 23     | 1048.3 | 0.488888   | 158.9         | 264.0         | 386.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 1   | 24     | 972.8  | 0.482407   | 156.8         | 260.5         | 381.1         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 1      | 940.5  | 0.508088   | 165.1         | 274.4         | 401.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 2      | 887.9  | 0.589972   | 191.7         | 318.6         | 466.1         |                    | -                          | -                          | 68.18                      |
| 2020 | 5     | 2   | 3      | 898.6  | 0.584725   | 190.0         | 315.8         | 461.9         |                    | -                          | -                          | 53.33                      |
| 2020 | 5     | 2   | 4      | 897.4  | 0.627351   | 203.9         | 338.8         | 495.6         |                    | -                          | -                          | 88.21                      |
| 2020 | 5     | 2   | 5      | 917.1  | 0.627142   | 203.8         | 338.7         | 495.4         |                    | -                          | -                          | 68.34                      |
| 2020 | 5     | 2   | 6      | 961.7  | 0.614818   | 199.8         | 332.0         | 485.7         |                    | -                          | -                          | 14.01                      |
| 2020 | 5     | 2   | 7      | 1046.3 | 0.651341   | 211.7         | 351.7         | 514.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 8      | 1121   | 0.651697   | 211.8         | 351.9         | 514.8         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 9      | 1150.2 | 0.538682   | 175.1         | 290.9         | 425.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 10     | 1119.1 | 0.622833   | 202.4         | 336.3         | 492.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 11     | 1101.8 | 0.632079   | 205.4         | 341.3         | 499.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 12     | 1091.5 | 0.608319   | 197.7         | 328.5         | 480.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 13     | 1081.2 | 0.567377   | 184.4         | 306.4         | 448.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 14     | 1056.2 | 0.510905   | 166.0         | 275.9         | 403.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 15     | 1064.3 | 0.41035    | 133.4         | 221.6         | 324.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 16     | 1075.3 | 0.495529   | 161.0         | 267.6         | 391.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 17     | 1063.3 | 0.478306   | 155.4         | 258.3         | 377.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 18     | 1057.6 | 0.378427   | 123.0         | 204.4         | 299.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 19     | 1029.9 | 0.261755   | 85.1          | 141.3         | 206.8         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 20     | 1014.7 | 0.244205   | 79.4          | 131.9         | 192.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 21     | 1043.4 | 0.375231   | 122.0         | 202.6         | 296.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 22     | 1054.1 | 0.389178   | 126.5         | 210.2         | 307.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 23     | 1002.7 | 0.248319   | 80.7          | 134.1         | 196.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 2   | 24     | 922.4  | 0.186966   | 60.8          | 101.0         | 147.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 1      | 899.3  | 0.32667    | 106.2         | 176.4         | 258.1         |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 2      | 855.3  | 0.329527   | 107.1         | 177.9         | 260.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 3      | 846.2  | 0.327968   | 106.6         | 177.1         | 259.1         |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 4      | 858.8  | 0.33373    | 108.5         | 180.2         | 263.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 5      | 886.8  | 0.245807   | 79.9          | 132.7         | 194.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 6      | 877.2  | 0.069873   | 22.7          | 37.7          | 55.2          |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 7      | 928.6  | 0.158495   | 51.5          | 85.6          | 125.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 8      | 1041.2 | 0.222308   | 72.2          | 120.0         | 175.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 9      | 1096.1 | 0.22491    | 73.1          | 121.5         | 177.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 10     | 1107.6 | 0.189485   | 61.6          | 102.3         | 149.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 11     | 1069.4 | 0.076471   | 24.9          | 41.3          | 60.4          |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 12     | 1096.1 | 0.094424   | 30.7          | 51.0          | 74.6          |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 13     | 1022   | 0.197462   | 64.2          | 106.6         | 156.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 14     | 1003.3 | 0.079324   | 25.8          | 42.8          | 62.7          |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 15     | 965.6  | 0.092704   | 30.1          | 50.1          | 73.2          |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 16     | 1027.2 | 0.147606   | 48.0          | 79.7          | 116.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 17     | 1056.2 | 0.204717   | 66.5          | 110.5         | 161.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 3   | 18     | 1068   | 0.189394   | 61.6          | 102.3         | 149.6         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 5     | 3   | 19     | 1077.6 | 0.181366      | 58.9             | 97.9             | 143.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 3   | 20     | 1053.1 | 0.200747      | 65.2             | 108.4            | 158.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 3   | 21     | 1067.5 | 0.199302      | 64.8             | 107.6            | 157.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 3   | 22     | 1015.3 | 0.259138      | 84.2             | 139.9            | 204.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 3   | 23     | 897.8  | 0.26287       | 85.4             | 141.9            | 207.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 3   | 24     | 802.8  | 0.351016      | 114.1            | 189.5            | 277.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 1      | 767.1  | 0.361973      | 117.6            | 195.5            | 286.0            |                       | -                             | -                             | 8.86                          |
| 2020 | 5     | 4   | 2      | 766.5  | 0.442951      | 144.0            | 239.2            | 349.9            |                       | -                             | -                             | 73.43                         |
| 2020 | 5     | 4   | 3      | 753    | 0.385084      | 125.2            | 207.9            | 304.2            |                       | -                             | -                             | 41.22                         |
| 2020 | 5     | 4   | 4      | 785.1  | 0.416852      | 135.5            | 225.1            | 329.3            |                       | -                             | -                             | 34.21                         |
| 2020 | 5     | 4   | 5      | 843.2  | 0.446228      | 145.0            | 241.0            | 352.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 6      | 991.9  | 0.439788      | 142.9            | 237.5            | 347.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 7      | 1118.4 | 0.425894      | 138.4            | 230.0            | 336.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 8      | 1131.2 | 0.599493      | 194.8            | 323.7            | 473.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 9      | 1150.2 | 0.545072      | 177.1            | 294.3            | 430.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 10     | 1145.4 | 0.597289      | 194.1            | 322.5            | 471.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 11     | 1072.9 | 0.569142      | 185.0            | 307.3            | 449.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 12     | 1122.6 | 0.607882      | 197.6            | 328.3            | 480.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 13     | 1096.1 | 0.725842      | 235.9            | 392.0            | 573.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 14     | 1093.4 | 0.682831      | 221.9            | 368.7            | 539.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 15     | 1085.6 | 0.662299      | 215.2            | 357.6            | 523.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 16     | 1147.9 | 0.623586      | 202.7            | 336.7            | 492.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 17     | 1169.9 | 0.594599      | 193.2            | 321.1            | 469.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 18     | 1135.8 | 0.667308      | 216.9            | 360.3            | 527.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 19     | 1106   | 0.759559      | 246.9            | 410.2            | 600.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 20     | 1099.4 | 0.742975      | 241.5            | 401.2            | 587.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 21     | 1113.7 | 0.730348      | 237.4            | 394.4            | 577.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 4   | 22     | 1037.9 | 0.78028       | 253.6            | 421.4            | 616.4            |                       | -                             | -                             | 68.52                         |
| 2020 | 5     | 4   | 23     | 980.9  | 0.775954      | 252.2            | 419.0            | 613.0            |                       | -                             | -                             | 122.10                        |
| 2020 | 5     | 4   | 24     | 871.5  | 0.846441      | 275.1            | 457.1            | 668.7            |                       | -                             | 75.58                         | 287.19                        |
| 2020 | 5     | 5   | 1      | 823.6  | 0.83716       | 272.1            | 452.1            | 661.4            |                       | -                             | 118.47                        | 327.76                        |
| 2020 | 5     | 5   | 2      | 766.3  | 0.780797      | 253.8            | 421.6            | 616.8            |                       | -                             | 145.33                        | 340.53                        |
| 2020 | 5     | 5   | 3      | 750.9  | 0.729951      | 237.2            | 394.2            | 576.7            |                       | -                             | 133.27                        | 315.76                        |
| 2020 | 5     | 5   | 4      | 772.2  | 0.661316      | 214.9            | 357.1            | 522.4            |                       | -                             | 74.91                         | 240.24                        |
| 2020 | 5     | 5   | 5      | 822.7  | 0.642799      | 208.9            | 347.1            | 507.8            |                       | -                             | 14.41                         | 175.11                        |
| 2020 | 5     | 5   | 6      | 950.9  | 0.591615      | 192.3            | 319.5            | 467.4            |                       | -                             | -                             | 6.48                          |
| 2020 | 5     | 5   | 7      | 1079.5 | 0.605167      | 196.7            | 326.8            | 478.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 8      | 1094   | 0.483362      | 157.1            | 261.0            | 381.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 9      | 1129.6 | 0.398721      | 129.6            | 215.3            | 315.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 10     | 1094.4 | 0.43336       | 140.8            | 234.0            | 342.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 11     | 1073.4 | 0.435423      | 141.5            | 235.1            | 344.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 12     | 1061.6 | 0.487418      | 158.4            | 263.2            | 385.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 13     | 1028.3 | 0.523355      | 170.1            | 282.6            | 413.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 14     | 1050.5 | 0.482701      | 156.9            | 260.7            | 381.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 15     | 1064.3 | 0.438852      | 142.6            | 237.0            | 346.7            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 5     | 5   | 16     | 1064.9 | 0.549983      | 178.7            | 297.0            | 434.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 17     | 1101.7 | 0.573718      | 186.5            | 309.8            | 453.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 18     | 1076   | 0.617013      | 200.5            | 333.2            | 487.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 19     | 1070.6 | 0.568012      | 184.6            | 306.7            | 448.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 20     | 1027.8 | 0.586117      | 190.5            | 316.5            | 463.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 21     | 1068.5 | 0.613675      | 199.4            | 331.4            | 484.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 22     | 999.2  | 0.531777      | 172.8            | 287.2            | 420.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 23     | 927.7  | 0.501534      | 163.0            | 270.8            | 396.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 5   | 24     | 832.3  | 0.54311       | 176.5            | 293.3            | 429.1            |                       | -                             | -                             | 86.76                         |
| 2020 | 5     | 6   | 1      | 785.7  | 0.547219      | 177.8            | 295.5            | 432.3            |                       | -                             | -                             | 136.60                        |
| 2020 | 5     | 6   | 2      | 756.5  | 0.444274      | 144.4            | 239.9            | 351.0            |                       | -                             | -                             | 84.48                         |
| 2020 | 5     | 6   | 3      | 750.5  | 0.58018       | 188.6            | 313.3            | 458.3            |                       | -                             | 52.80                         | 197.84                        |
| 2020 | 5     | 6   | 4      | 764.1  | 0.484346      | 157.4            | 261.5            | 382.6            |                       | -                             | -                             | 108.53                        |
| 2020 | 5     | 6   | 5      | 809.1  | 0.472111      | 153.4            | 254.9            | 373.0            |                       | -                             | -                             | 53.87                         |
| 2020 | 5     | 6   | 6      | 940.5  | 0.495162      | 160.9            | 267.4            | 391.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 7      | 1075.2 | 0.560955      | 182.3            | 302.9            | 443.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 8      | 1130.9 | 0.588392      | 191.2            | 317.7            | 464.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 9      | 1087.8 | 0.54933       | 178.5            | 296.6            | 434.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 10     | 1098.9 | 0.612627      | 199.1            | 330.8            | 484.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 11     | 1109.6 | 0.712696      | 231.6            | 384.9            | 563.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 12     | 1090.7 | 0.696107      | 226.2            | 375.9            | 549.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 13     | 1043.8 | 0.565021      | 183.6            | 305.1            | 446.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 14     | 1077.3 | 0.535854      | 174.2            | 289.4            | 423.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 15     | 1068   | 0.556497      | 180.9            | 300.5            | 439.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 16     | 1061.6 | 0.639723      | 207.9            | 345.5            | 505.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 17     | 1073.6 | 0.528022      | 171.6            | 285.1            | 417.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 18     | 1049.1 | 0.547098      | 177.8            | 295.4            | 432.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 19     | 1030   | 0.398955      | 129.7            | 215.4            | 315.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 20     | 1041.2 | 0.367626      | 119.5            | 198.5            | 290.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 21     | 1063.6 | 0.47709       | 155.1            | 257.6            | 376.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 22     | 1028.8 | 0.515083      | 167.4            | 278.1            | 406.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 6   | 23     | 949.9  | 0.628582      | 204.3            | 339.4            | 496.6            |                       | -                             | -                             | 36.68                         |
| 2020 | 5     | 6   | 24     | 858.4  | 0.619871      | 201.5            | 334.7            | 489.7            |                       | -                             | -                             | 121.30                        |
| 2020 | 5     | 7   | 1      | 807.1  | 0.721319      | 234.4            | 389.5            | 569.8            |                       | -                             | 72.41                         | 252.74                        |
| 2020 | 5     | 7   | 2      | 781.9  | 0.719979      | 234.0            | 388.8            | 568.8            |                       | -                             | 96.89                         | 276.88                        |
| 2020 | 5     | 7   | 3      | 797.8  | 0.663116      | 215.5            | 358.1            | 523.9            |                       | -                             | 50.28                         | 216.06                        |
| 2020 | 5     | 7   | 4      | 811.4  | 0.633942      | 206.0            | 342.3            | 500.8            |                       | -                             | 20.93                         | 179.41                        |
| 2020 | 5     | 7   | 5      | 890.9  | 0.512246      | 166.5            | 276.6            | 404.7            |                       | -                             | -                             | 3.77                          |
| 2020 | 5     | 7   | 6      | 973.8  | 0.570586      | 185.4            | 308.1            | 450.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 7      | 1077.4 | 0.402631      | 130.9            | 217.4            | 318.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 8      | 1122.6 | 0.342529      | 111.3            | 185.0            | 270.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 9      | 1108.2 | 0.486303      | 158.0            | 262.6            | 384.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 10     | 1103.7 | 0.484817      | 157.6            | 261.8            | 383.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 11     | 1117.2 | 0.557184      | 181.1            | 300.9            | 440.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 12     | 1107.2 | 0.547735      | 178.0            | 295.8            | 432.7            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 5     | 7   | 13     | 1088.5 | 0.562036      | 182.7            | 303.5            | 444.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 14     | 1089.3 | 0.549492      | 178.6            | 296.7            | 434.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 15     | 1111.4 | 0.505823      | 164.4            | 273.1            | 399.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 16     | 1117   | 0.541981      | 176.1            | 292.7            | 428.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 17     | 1140.1 | 0.558535      | 181.5            | 301.6            | 441.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 18     | 1125.7 | 0.54123       | 175.9            | 292.3            | 427.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 19     | 1151.5 | 0.472267      | 153.5            | 255.0            | 373.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 20     | 1125.1 | 0.374979      | 121.9            | 202.5            | 296.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 21     | 1094   | 0.409747      | 133.2            | 221.3            | 323.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 22     | 1062.5 | 0.478807      | 155.6            | 258.6            | 378.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 23     | 980.7  | 0.474753      | 154.3            | 256.4            | 375.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 7   | 24     | 887.4  | 0.456338      | 148.3            | 246.4            | 360.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 1      | 855.3  | 0.424414      | 137.9            | 229.2            | 335.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 2      | 832.3  | 0.369608      | 120.1            | 199.6            | 292.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 3      | 808.1  | 0.386842      | 125.7            | 208.9            | 305.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 4      | 794    | 0.372287      | 121.0            | 201.0            | 294.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 5      | 860.9  | 0.422498      | 137.3            | 228.1            | 333.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 6      | 972.4  | 0.421676      | 137.0            | 227.7            | 333.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 7      | 1075.7 | 0.36693       | 119.3            | 198.1            | 289.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 8      | 1134.9 | 0.230859      | 75.0             | 124.7            | 182.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 9      | 1138.5 | 0.14511       | 47.2             | 78.4             | 114.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 10     | 1117.2 | 0.083907      | 27.3             | 45.3             | 66.3             |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 11     | 1103.5 | 0.064874      | 21.1             | 35.0             | 51.3             |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 12     | 1098.9 | 0.066218      | 21.5             | 35.8             | 52.3             |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 13     | 1043.1 | 0.097673      | 31.7             | 52.7             | 77.2             |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 14     | 1039.6 | 0.125256      | 40.7             | 67.6             | 99.0             |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 15     | 1033.9 | 0.13469       | 43.8             | 72.7             | 106.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 16     | 1085.9 | 0.161846      | 52.6             | 87.4             | 127.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 17     | 1094.9 | 0.20996       | 68.2             | 113.4            | 165.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 18     | 1043.1 | 0.225664      | 73.3             | 121.9            | 178.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 19     | 1033.4 | 0.255491      | 83.0             | 138.0            | 201.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 20     | 1050.9 | 0.355262      | 115.5            | 191.8            | 280.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 21     | 1023   | 0.309516      | 100.6            | 167.1            | 244.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 22     | 972.4  | 0.308653      | 100.3            | 166.7            | 243.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 23     | 959.8  | 0.314755      | 102.3            | 170.0            | 248.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 8   | 24     | 880.6  | 0.336272      | 109.3            | 181.6            | 265.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 9   | 1      | 824.7  | 0.362988      | 118.0            | 196.0            | 286.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 9   | 2      | 788.9  | 0.408536      | 132.8            | 220.6            | 322.7            |                       | -                             | -                             | 23.84                         |
| 2020 | 5     | 9   | 3      | 807.6  | 0.481926      | 156.6            | 260.2            | 380.7            |                       | -                             | -                             | 63.12                         |
| 2020 | 5     | 9   | 4      | 799.1  | 0.524345      | 170.4            | 283.1            | 414.2            |                       | -                             | -                             | 105.13                        |
| 2020 | 5     | 9   | 5      | 805.6  | 0.584528      | 190.0            | 315.6            | 461.8            |                       | -                             | 0.04                          | 146.18                        |
| 2020 | 5     | 9   | 6      | 834.8  | 0.596552      | 193.9            | 322.1            | 471.3            |                       | -                             | -                             | 126.48                        |
| 2020 | 5     | 9   | 7      | 895.8  | 0.599002      | 194.7            | 323.5            | 473.2            |                       | -                             | -                             | 67.41                         |
| 2020 | 5     | 9   | 8      | 983.8  | 0.578792      | 188.1            | 312.5            | 457.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 9   | 9      | 1027.8 | 0.574516      | 186.7            | 310.2            | 453.9            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 5     | 9   | 10     | 1020   | 0.600797   | 195.3         | 324.4         | 474.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 9   | 11     | 1038.8 | 0.604697   | 196.5         | 326.5         | 477.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 9   | 12     | 1062.3 | 0.650259   | 211.3         | 351.1         | 513.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 9   | 13     | 1068   | 0.694971   | 225.9         | 375.3         | 549.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 9   | 14     | 1050.6 | 0.634681   | 206.3         | 342.7         | 501.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 9   | 15     | 1049.1 | 0.687352   | 223.4         | 371.2         | 543.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 9   | 16     | 1115.3 | 0.653714   | 212.5         | 353.0         | 516.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 9   | 17     | 1110.7 | 0.743435   | 241.6         | 401.5         | 587.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 9   | 18     | 1090   | 0.751337   | 244.2         | 405.7         | 593.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 9   | 19     | 1101.7 | 0.764999   | 248.6         | 413.1         | 604.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 9   | 20     | 1137.7 | 0.790601   | 256.9         | 426.9         | 624.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 9   | 21     | 1101.8 | 0.769173   | 250.0         | 415.4         | 607.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 9   | 22     | 1062   | 0.819861   | 266.5         | 442.7         | 647.7         |                    | -                          | -                          | 75.69                      |
| 2020 | 5     | 9   | 23     | 983.2  | 0.74369    | 241.7         | 401.6         | 587.5         |                    | -                          | -                          | 94.31                      |
| 2020 | 5     | 9   | 24     | 886    | 0.674342   | 219.2         | 364.1         | 532.7         |                    | -                          | -                          | 136.73                     |
| 2020 | 5     | 10  | 1      | 837.9  | 0.751727   | 244.3         | 405.9         | 593.9         |                    | -                          | 58.03                      | 245.96                     |
| 2020 | 5     | 10  | 2      | 819.3  | 0.744443   | 241.9         | 402.0         | 588.1         |                    | -                          | 72.70                      | 258.81                     |
| 2020 | 5     | 10  | 3      | 799.6  | 0.701802   | 228.1         | 379.0         | 554.4         |                    | -                          | 69.37                      | 244.82                     |
| 2020 | 5     | 10  | 4      | 807.6  | 0.683302   | 222.1         | 369.0         | 539.8         |                    | -                          | 51.38                      | 222.21                     |
| 2020 | 5     | 10  | 5      | 809.6  | 0.677221   | 220.1         | 365.7         | 535.0         |                    | -                          | 46.10                      | 215.40                     |
| 2020 | 5     | 10  | 6      | 819.8  | 0.674108   | 219.1         | 364.0         | 532.5         |                    | -                          | 34.22                      | 202.75                     |
| 2020 | 5     | 10  | 7      | 919.7  | 0.731064   | 237.6         | 394.8         | 577.5         |                    | -                          | -                          | 147.84                     |
| 2020 | 5     | 10  | 8      | 997.4  | 0.682056   | 221.7         | 368.3         | 538.8         |                    | -                          | -                          | 31.42                      |
| 2020 | 5     | 10  | 9      | 1060.1 | 0.689449   | 224.1         | 372.3         | 544.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 10  | 10     | 1056.4 | 0.584759   | 190.0         | 315.8         | 462.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 10  | 11     | 1027.8 | 0.678128   | 220.4         | 366.2         | 535.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 10  | 12     | 1026.1 | 0.640446   | 208.1         | 345.8         | 506.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 10  | 13     | 1015.3 | 0.638929   | 207.7         | 345.0         | 504.8         |                    | -                          | -                          | -                          |
| 2020 | 5     | 10  | 14     | 993    | 0.639153   | 207.7         | 345.1         | 504.9         |                    | -                          | -                          | 1.93                       |
| 2020 | 5     | 10  | 15     | 993.7  | 0.665137   | 216.2         | 359.2         | 525.5         |                    | -                          | -                          | 21.76                      |
| 2020 | 5     | 10  | 16     | 1035.9 | 0.724423   | 235.4         | 391.2         | 572.3         |                    | -                          | -                          | 26.39                      |
| 2020 | 5     | 10  | 17     | 1032   | 0.776806   | 252.5         | 419.5         | 613.7         |                    | -                          | -                          | 71.68                      |
| 2020 | 5     | 10  | 18     | 1092.2 | 0.7879     | 256.1         | 425.5         | 622.4         |                    | -                          | -                          | 20.24                      |
| 2020 | 5     | 10  | 19     | 1065.7 | 0.828093   | 269.1         | 447.2         | 654.2         |                    | -                          | -                          | 78.49                      |
| 2020 | 5     | 10  | 20     | 1108.2 | 0.842827   | 273.9         | 455.1         | 665.8         |                    | -                          | -                          | 47.63                      |
| 2020 | 5     | 10  | 21     | 1135.5 | 0.771333   | 250.7         | 416.5         | 609.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 10  | 22     | 1079.9 | 0.748652   | 243.3         | 404.3         | 591.4         |                    | -                          | -                          | 1.54                       |
| 2020 | 5     | 10  | 23     | 984.1  | 0.767512   | 249.4         | 414.5         | 606.3         |                    | -                          | -                          | 112.23                     |
| 2020 | 5     | 10  | 24     | 906    | 0.836539   | 271.9         | 451.7         | 660.9         |                    | -                          | 35.73                      | 244.87                     |
| 2020 | 5     | 11  | 1      | 832.3  | 0.814959   | 264.9         | 440.1         | 643.8         |                    | -                          | 97.78                      | 301.52                     |
| 2020 | 5     | 11  | 2      | 820.6  | 0.800671   | 260.2         | 432.4         | 632.5         |                    | -                          | 101.76                     | 301.93                     |
| 2020 | 5     | 11  | 3      | 811.1  | 0.759452   | 246.8         | 410.1         | 600.0         |                    | -                          | 89.00                      | 278.87                     |
| 2020 | 5     | 11  | 4      | 857.6  | 0.78657    | 255.6         | 424.7         | 621.4         |                    | -                          | 57.15                      | 253.79                     |
| 2020 | 5     | 11  | 5      | 903.4  | 0.757797   | 246.3         | 409.2         | 598.7         |                    | -                          | -                          | 185.26                     |
| 2020 | 5     | 11  | 6      | 1018.7 | 0.851937   | 276.9         | 460.0         | 673.0         |                    | -                          | -                          | 144.33                     |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 5     | 11  | 7      | 1131.2 | 0.897669      | 291.7            | 484.7            | 709.2            |                       | -                             | -                             | 67.96                         |
| 2020 | 5     | 11  | 8      | 1228.2 | 0.867435      | 281.9            | 468.4            | 685.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 11  | 9      | 1251.9 | 0.883361      | 287.1            | 477.0            | 697.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 11  | 10     | 1277.6 | 0.856484      | 278.4            | 462.5            | 676.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 11  | 11     | 1189.8 | 0.849304      | 276.0            | 458.6            | 670.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 11  | 12     | 1181.1 | 0.877094      | 285.1            | 473.6            | 692.9            |                       | -                             | -                             | 1.80                          |
| 2020 | 5     | 11  | 13     | 1123.2 | 0.878532      | 285.5            | 474.4            | 694.0            |                       | -                             | -                             | 60.84                         |
| 2020 | 5     | 11  | 14     | 1102.6 | 0.849981      | 276.2            | 459.0            | 671.5            |                       | -                             | -                             | 58.89                         |
| 2020 | 5     | 11  | 15     | 1172.2 | 0.853204      | 277.3            | 460.7            | 674.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 11  | 16     | 1234   | 0.849375      | 276.0            | 458.7            | 671.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 11  | 17     | 1271.3 | 0.80404       | 261.3            | 434.2            | 635.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 11  | 18     | 1233.9 | 0.741261      | 240.9            | 400.3            | 585.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 11  | 19     | 1129.6 | 0.712472      | 231.6            | 384.7            | 562.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 11  | 20     | 1150.9 | 0.745956      | 242.4            | 402.8            | 589.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 11  | 21     | 1179   | 0.678376      | 220.5            | 366.3            | 535.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 11  | 22     | 1111.4 | 0.756232      | 245.8            | 408.4            | 597.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 11  | 23     | 1066.6 | 0.738818      | 240.1            | 399.0            | 583.7            |                       | -                             | -                             | 7.07                          |
| 2020 | 5     | 11  | 24     | 992    | 0.718835      | 233.6            | 388.2            | 567.9            |                       | -                             | -                             | 65.88                         |
| 2020 | 5     | 12  | 1      | 899.1  | 0.703067      | 228.5            | 379.7            | 555.4            |                       | -                             | -                             | 146.32                        |
| 2020 | 5     | 12  | 2      | 885.4  | 0.701008      | 227.8            | 378.5            | 553.8            |                       | -                             | -                             | 158.40                        |
| 2020 | 5     | 12  | 3      | 883.8  | 0.675156      | 219.4            | 364.6            | 533.4            |                       | -                             | -                             | 139.57                        |
| 2020 | 5     | 12  | 4      | 912.7  | 0.73019       | 237.3            | 394.3            | 576.8            |                       | -                             | -                             | 154.15                        |
| 2020 | 5     | 12  | 5      | 959    | 0.750376      | 243.9            | 405.2            | 592.8            |                       | -                             | -                             | 123.80                        |
| 2020 | 5     | 12  | 6      | 1067   | 0.63034       | 204.9            | 340.4            | 498.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 7      | 1171.3 | 0.671366      | 218.2            | 362.5            | 530.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 8      | 1237.8 | 0.570341      | 185.4            | 308.0            | 450.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 9      | 1195.8 | 0.541359      | 175.9            | 292.3            | 427.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 10     | 1166.3 | 0.55652       | 180.9            | 300.5            | 439.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 11     | 1155   | 0.532871      | 173.2            | 287.8            | 421.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 12     | 1184.3 | 0.515965      | 167.7            | 278.6            | 407.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 13     | 1172.6 | 0.533497      | 173.4            | 288.1            | 421.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 14     | 1129.6 | 0.502674      | 163.4            | 271.4            | 397.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 15     | 1135.6 | 0.461786      | 150.1            | 249.4            | 364.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 16     | 1158.5 | 0.423674      | 137.7            | 228.8            | 334.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 17     | 1234.7 | 0.426973      | 138.8            | 230.6            | 337.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 18     | 1196.6 | 0.442524      | 143.8            | 239.0            | 349.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 19     | 1135.8 | 0.44693       | 145.3            | 241.3            | 353.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 20     | 1117.2 | 0.416616      | 135.4            | 225.0            | 329.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 21     | 1129.6 | 0.43118       | 140.1            | 232.8            | 340.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 22     | 1062.4 | 0.447393      | 145.4            | 241.6            | 353.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 23     | 1023   | 0.30574       | 99.4             | 165.1            | 241.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 12  | 24     | 962    | 0.292038      | 94.9             | 157.7            | 230.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 1      | 902.3  | 0.291962      | 94.9             | 157.7            | 230.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 2      | 887    | 0.283349      | 92.1             | 153.0            | 223.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 3      | 909.2  | 0.28777       | 93.5             | 155.4            | 227.3            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 5     | 13  | 4      | 915.7  | 0.256075      | 83.2             | 138.3            | 202.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 5      | 994    | 0.195526      | 63.5             | 105.6            | 154.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 6      | 1080.7 | 0.16807       | 54.6             | 90.8             | 132.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 7      | 1154.7 | 0.137814      | 44.8             | 74.4             | 108.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 8      | 1193.7 | 0.148842      | 48.4             | 80.4             | 117.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 9      | 1184.3 | 0.113262      | 36.8             | 61.2             | 89.5             |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 10     | 1173   | 0.114925      | 37.4             | 62.1             | 90.8             |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 11     | 1111.4 | 0.118049      | 38.4             | 63.7             | 93.3             |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 12     | 1108.2 | 0.152116      | 49.4             | 82.1             | 120.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 13     | 1062.4 | 0.124078      | 40.3             | 67.0             | 98.0             |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 14     | 1101.8 | 0.136403      | 44.3             | 73.7             | 107.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 15     | 1112.9 | 0.173747      | 56.5             | 93.8             | 137.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 16     | 1134.9 | 0.156933      | 51.0             | 84.7             | 124.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 17     | 1143.8 | 0.176184      | 57.3             | 95.1             | 139.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 18     | 1101.2 | 0.1617        | 52.6             | 87.3             | 127.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 19     | 1090.2 | 0.132683      | 43.1             | 71.6             | 104.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 20     | 1148.3 | 0.157986      | 51.3             | 85.3             | 124.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 21     | 1129.6 | 0.177933      | 57.8             | 96.1             | 140.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 22     | 1052.1 | 0.153478      | 49.9             | 82.9             | 121.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 23     | 983.2  | 0.046508      | 15.1             | 25.1             | 36.7             |                       | -                             | -                             | -                             |
| 2020 | 5     | 13  | 24     | 895.9  | 0.047016      | 15.3             | 25.4             | 37.1             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 1      | 850.6  | 0.041835      | 13.6             | 22.6             | 33.0             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 2      | 832.9  | 0.0689        | 22.4             | 37.2             | 54.4             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 3      | 841.2  | 0.065504      | 21.3             | 35.4             | 51.7             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 4      | 866.7  | 0.075044      | 24.4             | 40.5             | 59.3             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 5      | 961.6  | 0.075541      | 24.6             | 40.8             | 59.7             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 6      | 1031.7 | 0.050451      | 16.4             | 27.2             | 39.9             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 7      | 1145.4 | 0.045495      | 14.8             | 24.6             | 35.9             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 8      | 1197.5 | 0.038925      | 12.7             | 21.0             | 30.8             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 9      | 1201.9 | 0.0336        | 10.9             | 18.1             | 26.5             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 10     | 1147.6 | 0.025022      | 8.1              | 13.5             | 19.8             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 11     | 1126.7 | 0.026671      | 8.7              | 14.4             | 21.1             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 12     | 1093.1 | 0.021237      | 6.9              | 11.5             | 16.8             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 13     | 1077.4 | 0.028081      | 9.1              | 15.2             | 22.2             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 14     | 1079.5 | 0.023324      | 7.6              | 12.6             | 18.4             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 15     | 1073.4 | 0.020784      | 6.8              | 11.2             | 16.4             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 16     | 1117.2 | 0.021533      | 7.0              | 11.6             | 17.0             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 17     | 1153.7 | 0.020356      | 6.6              | 11.0             | 16.1             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 18     | 1110.7 | 0.025596      | 8.3              | 13.8             | 20.2             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 19     | 1108.2 | 0.052852      | 17.2             | 28.5             | 41.8             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 20     | 1104.2 | 0.052155      | 17.0             | 28.2             | 41.2             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 21     | 1092.9 | 0.083021      | 27.0             | 44.8             | 65.6             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 22     | 1052.5 | 0.12292       | 39.9             | 66.4             | 97.1             |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 23     | 974.3  | 0.149868      | 48.7             | 80.9             | 118.4            |                       | -                             | -                             | -                             |
| 2020 | 5     | 14  | 24     | 898.8  | 0.159409      | 51.8             | 86.1             | 125.9            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind     | Wind [MW] | Wind [MW] | Wind [MW] | Min Steam [MW] | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|----------|-----------|-----------|-----------|----------------|-------------------------------|-------------------------------|-------------------------------|
|      |       |     |        |        | Shape    | 325       | 540       | 790       |                |                               |                               |                               |
| 2020 | 5     | 15  | 1      | 836.4  | 0.190514 | 61.9      | 102.9     | 150.5     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 2      | 806.8  | 0.201089 | 65.4      | 108.6     | 158.9     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 3      | 833.1  | 0.236918 | 77.0      | 127.9     | 187.2     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 4      | 845.3  | 0.188458 | 61.2      | 101.8     | 148.9     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 5      | 876.6  | 0.199745 | 64.9      | 107.9     | 157.8     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 6      | 994.5  | 0.172733 | 56.1      | 93.3      | 136.5     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 7      | 1104.5 | 0.154992 | 50.4      | 83.7      | 122.4     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 8      | 1121.6 | 0.153867 | 50.0      | 83.1      | 121.6     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 9      | 1135.8 | 0.130583 | 42.4      | 70.5      | 103.2     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 10     | 1162.9 | 0.168891 | 54.9      | 91.2      | 133.4     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 11     | 1126.7 | 0.176874 | 57.5      | 95.5      | 139.7     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 12     | 1106.7 | 0.144124 | 46.8      | 77.8      | 113.9     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 13     | 1076   | 0.152712 | 49.6      | 82.5      | 120.6     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 14     | 1052   | 0.104701 | 34.0      | 56.5      | 82.7      |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 15     | 1019   | 0.073269 | 23.8      | 39.6      | 57.9      |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 16     | 1075.1 | 0.05471  | 17.8      | 29.5      | 43.2      |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 17     | 1084.1 | 0.032162 | 10.5      | 17.4      | 25.4      |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 18     | 1011.9 | 0.032208 | 10.5      | 17.4      | 25.4      |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 19     | 1012.4 | 0.040974 | 13.3      | 22.1      | 32.4      |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 20     | 980.1  | 0.121676 | 39.5      | 65.7      | 96.1      |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 21     | 997    | 0.233052 | 75.7      | 125.8     | 184.1     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 22     | 955.5  | 0.248634 | 80.8      | 134.3     | 196.4     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 23     | 930.2  | 0.314416 | 102.2     | 169.8     | 248.4     |                | -                             | -                             | -                             |
| 2020 | 5     | 15  | 24     | 834.4  | 0.283668 | 92.2      | 153.2     | 224.1     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 1      | 806.8  | 0.263691 | 85.7      | 142.4     | 208.3     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 2      | 777.7  | 0.229303 | 74.5      | 123.8     | 181.1     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 3      | 744.9  | 0.322656 | 104.9     | 174.2     | 254.9     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 4      | 778.7  | 0.372097 | 120.9     | 200.9     | 294.0     |                | -                             | -                             | 5.26                          |
| 2020 | 5     | 16  | 5      | 798.4  | 0.399033 | 129.7     | 215.5     | 315.2     |                | -                             | -                             | 6.84                          |
| 2020 | 5     | 16  | 6      | 801.5  | 0.386345 | 125.6     | 208.6     | 305.2     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 7      | 903.4  | 0.413451 | 134.4     | 223.3     | 326.6     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 8      | 1006.9 | 0.353423 | 114.9     | 190.8     | 279.2     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 9      | 1068.5 | 0.40279  | 130.9     | 217.5     | 318.2     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 10     | 1062.5 | 0.382969 | 124.5     | 206.8     | 302.5     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 11     | 1051.4 | 0.418346 | 136.0     | 225.9     | 330.5     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 12     | 1106.7 | 0.372481 | 121.1     | 201.1     | 294.3     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 13     | 1116.5 | 0.370502 | 120.4     | 200.1     | 292.7     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 14     | 1117.2 | 0.411535 | 133.7     | 222.2     | 325.1     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 15     | 1077.4 | 0.469249 | 152.5     | 253.4     | 370.7     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 16     | 1086.2 | 0.542459 | 176.3     | 292.9     | 428.5     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 17     | 1099.4 | 0.500283 | 162.6     | 270.2     | 395.2     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 18     | 1072.9 | 0.488204 | 158.7     | 263.6     | 385.7     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 19     | 1052   | 0.477799 | 155.3     | 258.0     | 377.5     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 20     | 1019.4 | 0.440048 | 143.0     | 237.6     | 347.6     |                | -                             | -                             | -                             |
| 2020 | 5     | 16  | 21     | 1092.2 | 0.517634 | 168.2     | 279.5     | 408.9     |                | -                             | -                             | -                             |



| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 5     | 16  | 22     | 1033.6 | 0.570877   | 185.5         | 308.3         | 451.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 16  | 23     | 983.7  | 0.572643   | 186.1         | 309.2         | 452.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 16  | 24     | 922.9  | 0.559948   | 182.0         | 302.4         | 442.4         |                    | -                          | -                          | 9.46                       |
| 2020 | 5     | 17  | 1      | 864.4  | 0.550488   | 178.9         | 297.3         | 434.9         |                    | -                          | -                          | 60.49                      |
| 2020 | 5     | 17  | 2      | 831.8  | 0.493394   | 160.4         | 266.4         | 389.8         |                    | -                          | -                          | 47.98                      |
| 2020 | 5     | 17  | 3      | 814.1  | 0.484482   | 157.5         | 261.6         | 382.7         |                    | -                          | -                          | 58.64                      |
| 2020 | 5     | 17  | 4      | 829.1  | 0.388269   | 126.2         | 209.7         | 306.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 5      | 863.3  | 0.35979    | 116.9         | 194.3         | 284.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 6      | 855.1  | 0.332931   | 108.2         | 179.8         | 263.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 7      | 904.8  | 0.231195   | 75.1          | 124.8         | 182.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 8      | 980.7  | 0.134643   | 43.8          | 72.7          | 106.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 9      | 1035.9 | 0.077545   | 25.2          | 41.9          | 61.3          |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 10     | 1070.1 | 0.052434   | 17.0          | 28.3          | 41.4          |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 11     | 1054.9 | 0.046496   | 15.1          | 25.1          | 36.7          |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 12     | 1034.7 | 0.036056   | 11.7          | 19.5          | 28.5          |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 13     | 1014.2 | 0.053725   | 17.5          | 29.0          | 42.4          |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 14     | 959.3  | 0.088608   | 28.8          | 47.8          | 70.0          |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 15     | 961    | 0.11582    | 37.6          | 62.5          | 91.5          |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 16     | 967.4  | 0.144372   | 46.9          | 78.0          | 114.1         |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 17     | 1032.5 | 0.131362   | 42.7          | 70.9          | 103.8         |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 18     | 1067.5 | 0.141684   | 46.0          | 76.5          | 111.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 19     | 1068.5 | 0.163749   | 53.2          | 88.4          | 129.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 20     | 1058.2 | 0.119775   | 38.9          | 64.7          | 94.6          |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 21     | 1065.3 | 0.079015   | 25.7          | 42.7          | 62.4          |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 22     | 988.6  | 0.074466   | 24.2          | 40.2          | 58.8          |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 23     | 914.6  | 0.055178   | 17.9          | 29.8          | 43.6          |                    | -                          | -                          | -                          |
| 2020 | 5     | 17  | 24     | 839.5  | 0.047038   | 15.3          | 25.4          | 37.2          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 1      | 811.2  | 0.042874   | 13.9          | 23.2          | 33.9          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 2      | 792.3  | 0.052614   | 17.1          | 28.4          | 41.6          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 3      | 790.6  | 0.049751   | 16.2          | 26.9          | 39.3          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 4      | 796.9  | 0.042248   | 13.7          | 22.8          | 33.4          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 5      | 873.7  | 0.04339    | 14.1          | 23.4          | 34.3          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 6      | 999.2  | 0.04359    | 14.2          | 23.5          | 34.4          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 7      | 1103.5 | 0.033906   | 11.0          | 18.3          | 26.8          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 8      | 1185.4 | 0.030551   | 9.9           | 16.5          | 24.1          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 9      | 1202.1 | 0.025151   | 8.2           | 13.6          | 19.9          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 10     | 1172.7 | 0.021428   | 7.0           | 11.6          | 16.9          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 11     | 1171.2 | 0.022672   | 7.4           | 12.2          | 17.9          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 12     | 1148.7 | 0.027309   | 8.9           | 14.7          | 21.6          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 13     | 1106   | 0.028472   | 9.3           | 15.4          | 22.5          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 14     | 1077.4 | 0.05062    | 16.5          | 27.3          | 40.0          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 15     | 1089.3 | 0.052786   | 17.2          | 28.5          | 41.7          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 16     | 1126.2 | 0.072322   | 23.5          | 39.1          | 57.1          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 17     | 1094.5 | 0.053197   | 17.3          | 28.7          | 42.0          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 18     | 1045.3 | 0.03399    | 11.0          | 18.4          | 26.9          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 5     | 18  | 19     | 1021.1 | 0.048464   | 15.8          | 26.2          | 38.3          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 20     | 1064.3 | 0.115877   | 37.7          | 62.6          | 91.5          |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 21     | 1059.6 | 0.154008   | 50.1          | 83.2          | 121.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 22     | 1036.2 | 0.227782   | 74.0          | 123.0         | 179.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 23     | 1007.8 | 0.235311   | 76.5          | 127.1         | 185.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 18  | 24     | 902.3  | 0.240537   | 78.2          | 129.9         | 190.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 1      | 823.5  | 0.234949   | 76.4          | 126.9         | 185.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 2      | 814.7  | 0.222576   | 72.3          | 120.2         | 175.8         |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 3      | 802    | 0.197709   | 64.3          | 106.8         | 156.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 4      | 841.6  | 0.240164   | 78.1          | 129.7         | 189.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 5      | 893    | 0.30492    | 99.1          | 164.7         | 240.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 6      | 991.9  | 0.196738   | 63.9          | 106.2         | 155.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 7      | 1086   | 0.221634   | 72.0          | 119.7         | 175.1         |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 8      | 1134.9 | 0.155947   | 50.7          | 84.2          | 123.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 9      | 1163.6 | 0.067548   | 22.0          | 36.5          | 53.4          |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 10     | 1085.8 | 0.045402   | 14.8          | 24.5          | 35.9          |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 11     | 1092.2 | 0.044122   | 14.3          | 23.8          | 34.9          |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 12     | 1088.1 | 0.084343   | 27.4          | 45.5          | 66.6          |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 13     | 1059.3 | 0.107519   | 34.9          | 58.1          | 84.9          |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 14     | 1039.4 | 0.09463    | 30.8          | 51.1          | 74.8          |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 15     | 1028.4 | 0.10427    | 33.9          | 56.3          | 82.4          |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 16     | 1079.9 | 0.124421   | 40.4          | 67.2          | 98.3          |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 17     | 1124.8 | 0.12727    | 41.4          | 68.7          | 100.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 18     | 1034.7 | 0.109064   | 35.4          | 58.9          | 86.2          |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 19     | 1037.9 | 0.117395   | 38.2          | 63.4          | 92.7          |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 20     | 1009.6 | 0.193147   | 62.8          | 104.3         | 152.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 21     | 1067.7 | 0.215152   | 69.9          | 116.2         | 170.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 22     | 994.8  | 0.24083    | 78.3          | 130.0         | 190.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 23     | 919.7  | 0.291092   | 94.6          | 157.2         | 230.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 19  | 24     | 845.3  | 0.255755   | 83.1          | 138.1         | 202.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 1      | 794.4  | 0.272424   | 88.5          | 147.1         | 215.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 2      | 763.6  | 0.25045    | 81.4          | 135.2         | 197.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 3      | 764.5  | 0.255061   | 82.9          | 137.7         | 201.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 4      | 788.4  | 0.207242   | 67.4          | 111.9         | 163.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 5      | 817    | 0.159372   | 51.8          | 86.1          | 125.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 6      | 925.8  | 0.158271   | 51.4          | 85.5          | 125.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 7      | 1059.6 | 0.101669   | 33.0          | 54.9          | 80.3          |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 8      | 1075.8 | 0.111088   | 36.1          | 60.0          | 87.8          |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 9      | 1059.3 | 0.121065   | 39.3          | 65.4          | 95.6          |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 10     | 1084.6 | 0.065469   | 21.3          | 35.4          | 51.7          |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 11     | 1082.2 | 0.14367    | 46.7          | 77.6          | 113.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 12     | 1046.5 | 0.22483    | 73.1          | 121.4         | 177.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 13     | 1049.5 | 0.285052   | 92.6          | 153.9         | 225.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 14     | 1065.9 | 0.280681   | 91.2          | 151.6         | 221.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 15     | 1061.4 | 0.366107   | 119.0         | 197.7         | 289.2         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 5     | 20  | 16     | 1121.4 | 0.291956   | 94.9          | 157.7         | 230.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 17     | 1140.4 | 0.307894   | 100.1         | 166.3         | 243.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 18     | 1065.8 | 0.262548   | 85.3          | 141.8         | 207.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 19     | 1075.8 | 0.33655    | 109.4         | 181.7         | 265.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 20     | 1065.9 | 0.231416   | 75.2          | 125.0         | 182.8         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 21     | 1062.3 | 0.240698   | 78.2          | 130.0         | 190.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 22     | 1036.5 | 0.246891   | 80.2          | 133.3         | 195.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 23     | 928.3  | 0.212144   | 68.9          | 114.6         | 167.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 20  | 24     | 835.1  | 0.215414   | 70.0          | 116.3         | 170.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 1      | 778.5  | 0.198048   | 64.4          | 106.9         | 156.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 2      | 772.5  | 0.138387   | 45.0          | 74.7          | 109.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 3      | 768.3  | 0.111555   | 36.3          | 60.2          | 88.1          |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 4      | 784.1  | 0.119177   | 38.7          | 64.4          | 94.1          |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 5      | 822    | 0.103325   | 33.6          | 55.8          | 81.6          |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 6      | 895.9  | 0.114785   | 37.3          | 62.0          | 90.7          |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 7      | 1044.6 | 0.134986   | 43.9          | 72.9          | 106.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 8      | 1113.4 | 0.177146   | 57.6          | 95.7          | 139.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 9      | 1155.4 | 0.318383   | 103.5         | 171.9         | 251.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 10     | 1164   | 0.383358   | 124.6         | 207.0         | 302.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 11     | 1138.5 | 0.50714    | 164.8         | 273.9         | 400.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 12     | 1103.9 | 0.542583   | 176.3         | 293.0         | 428.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 13     | 1099.3 | 0.537036   | 174.5         | 290.0         | 424.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 14     | 1086.2 | 0.520905   | 169.3         | 281.3         | 411.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 15     | 1117.2 | 0.467705   | 152.0         | 252.6         | 369.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 16     | 1135.8 | 0.413904   | 134.5         | 223.5         | 327.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 17     | 1131   | 0.330021   | 107.3         | 178.2         | 260.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 18     | 1103.7 | 0.415806   | 135.1         | 224.5         | 328.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 19     | 1065.9 | 0.38982    | 126.7         | 210.5         | 308.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 20     | 1077.4 | 0.377858   | 122.8         | 204.0         | 298.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 21     | 1070.4 | 0.381382   | 123.9         | 205.9         | 301.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 22     | 1026.9 | 0.370054   | 120.3         | 199.8         | 292.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 23     | 946.8  | 0.403833   | 131.2         | 218.1         | 319.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 21  | 24     | 840.7  | 0.405407   | 131.8         | 218.9         | 320.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 22  | 1      | 802.8  | 0.293557   | 95.4          | 158.5         | 231.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 22  | 2      | 766.6  | 0.352921   | 114.7         | 190.6         | 278.8         |                    | -                          | -                          | 2.21                       |
| 2020 | 5     | 22  | 3      | 783.3  | 0.331583   | 107.8         | 179.1         | 262.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 22  | 4      | 763.1  | 0.342098   | 111.2         | 184.7         | 270.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 22  | 5      | 822.5  | 0.307708   | 100.0         | 166.2         | 243.1         |                    | -                          | -                          | -                          |
| 2020 | 5     | 22  | 6      | 940.5  | 0.311035   | 101.1         | 168.0         | 245.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 22  | 7      | 1044.1 | 0.319411   | 103.8         | 172.5         | 252.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 22  | 8      | 1089.1 | 0.264517   | 86.0          | 142.8         | 209.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 22  | 9      | 1108.9 | 0.234696   | 76.3          | 126.7         | 185.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 22  | 10     | 1082.2 | 0.24108    | 78.4          | 130.2         | 190.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 22  | 11     | 1034.2 | 0.190598   | 61.9          | 102.9         | 150.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 22  | 12     | 1050.5 | 0.167991   | 54.6          | 90.7          | 132.7         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 5     | 22  | 13     | 1051.1 | 0.173717      | 56.5             | 93.8             | 137.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 22  | 14     | 1043.1 | 0.169434      | 55.1             | 91.5             | 133.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 22  | 15     | 1058.8 | 0.157298      | 51.1             | 84.9             | 124.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 22  | 16     | 1037.3 | 0.142981      | 46.5             | 77.2             | 113.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 22  | 17     | 1034.9 | 0.108919      | 35.4             | 58.8             | 86.0             |                       | -                             | -                             | -                             |
| 2020 | 5     | 22  | 18     | 999.1  | 0.099641      | 32.4             | 53.8             | 78.7             |                       | -                             | -                             | -                             |
| 2020 | 5     | 22  | 19     | 964    | 0.076456      | 24.8             | 41.3             | 60.4             |                       | -                             | -                             | -                             |
| 2020 | 5     | 22  | 20     | 950.8  | 0.050901      | 16.5             | 27.5             | 40.2             |                       | -                             | -                             | -                             |
| 2020 | 5     | 22  | 21     | 983.1  | 0.045181      | 14.7             | 24.4             | 35.7             |                       | -                             | -                             | -                             |
| 2020 | 5     | 22  | 22     | 961.7  | 0.055698      | 18.1             | 30.1             | 44.0             |                       | -                             | -                             | -                             |
| 2020 | 5     | 22  | 23     | 952.9  | 0.084334      | 27.4             | 45.5             | 66.6             |                       | -                             | -                             | -                             |
| 2020 | 5     | 22  | 24     | 840.2  | 0.072274      | 23.5             | 39.0             | 57.1             |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 1      | 775.7  | 0.056645      | 18.4             | 30.6             | 44.7             |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 2      | 757    | 0.063092      | 20.5             | 34.1             | 49.8             |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 3      | 731.7  | 0.089869      | 29.2             | 48.5             | 71.0             |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 4      | 760.2  | 0.157587      | 51.2             | 85.1             | 124.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 5      | 776.8  | 0.132306      | 43.0             | 71.4             | 104.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 6      | 825    | 0.13885       | 45.1             | 75.0             | 109.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 7      | 908.2  | 0.10561       | 34.3             | 57.0             | 83.4             |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 8      | 983.5  | 0.133558      | 43.4             | 72.1             | 105.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 9      | 1004.7 | 0.231011      | 75.1             | 124.7            | 182.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 10     | 983.1  | 0.22866       | 74.3             | 123.5            | 180.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 11     | 945.5  | 0.286439      | 93.1             | 154.7            | 226.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 12     | 971.5  | 0.332239      | 108.0            | 179.4            | 262.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 13     | 917    | 0.371948      | 120.9            | 200.9            | 293.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 14     | 898.4  | 0.453886      | 147.5            | 245.1            | 358.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 23  | 15     | 880.1  | 0.577881      | 187.8            | 312.1            | 456.5            |                       | -                             | -                             | 66.43                         |
| 2020 | 5     | 23  | 16     | 905.1  | 0.631773      | 205.3            | 341.2            | 499.1            |                       | -                             | -                             | 84.00                         |
| 2020 | 5     | 23  | 17     | 956.1  | 0.652554      | 212.1            | 352.4            | 515.5            |                       | -                             | -                             | 49.42                         |
| 2020 | 5     | 23  | 18     | 978.8  | 0.698257      | 226.9            | 377.1            | 551.6            |                       | -                             | -                             | 62.82                         |
| 2020 | 5     | 23  | 19     | 951    | 0.729559      | 237.1            | 394.0            | 576.4            |                       | -                             | -                             | 115.35                        |
| 2020 | 5     | 23  | 20     | 910.8  | 0.682364      | 221.8            | 368.5            | 539.1            |                       | -                             | -                             | 118.27                        |
| 2020 | 5     | 23  | 21     | 929.8  | 0.738891      | 240.1            | 399.0            | 583.7            |                       | -                             | -                             | 143.92                        |
| 2020 | 5     | 23  | 22     | 972.4  | 0.77145       | 250.7            | 416.6            | 609.4            |                       | -                             | -                             | 127.05                        |
| 2020 | 5     | 23  | 23     | 858.6  | 0.767326      | 249.4            | 414.4            | 606.2            |                       | -                             | 45.76                         | 237.59                        |
| 2020 | 5     | 23  | 24     | 807    | 0.800725      | 260.2            | 432.4            | 632.6            |                       | -                             | 115.39                        | 315.57                        |
| 2020 | 5     | 24  | 1      | 771.4  | 0.818883      | 266.1            | 442.2            | 646.9            |                       | -                             | 160.80                        | 365.52                        |
| 2020 | 5     | 24  | 2      | 705.4  | 0.753419      | 244.9            | 406.8            | 595.2            |                       | 29.46                         | 191.45                        | 379.80                        |
| 2020 | 5     | 24  | 3      | 696    | 0.792162      | 257.5            | 427.8            | 625.8            |                       | 51.45                         | 221.77                        | 419.81                        |
| 2020 | 5     | 24  | 4      | 698.3  | 0.840907      | 273.3            | 454.1            | 664.3            |                       | 64.99                         | 245.79                        | 456.02                        |
| 2020 | 5     | 24  | 5      | 709.8  | 0.841185      | 273.4            | 454.2            | 664.5            |                       | 53.59                         | 234.44                        | 444.74                        |
| 2020 | 5     | 24  | 6      | 725.1  | 0.812475      | 264.1            | 438.7            | 641.9            |                       | 28.95                         | 203.64                        | 406.76                        |
| 2020 | 5     | 24  | 7      | 762.9  | 0.818064      | 265.9            | 441.8            | 646.3            |                       | -                             | 168.85                        | 373.37                        |
| 2020 | 5     | 24  | 8      | 823.8  | 0.794832      | 258.3            | 429.2            | 627.9            |                       | -                             | 95.41                         | 294.12                        |
| 2020 | 5     | 24  | 9      | 914.8  | 0.836964      | 272.0            | 452.0            | 661.2            |                       | -                             | 27.16                         | 236.40                        |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 5     | 24  | 10     | 922.8  | 0.826115      | 268.5            | 446.1            | 652.6            |                       | -                             | 13.30                         | 219.83                        |
| 2020 | 5     | 24  | 11     | 884.7  | 0.837552      | 272.2            | 452.3            | 661.7            |                       | -                             | 57.58                         | 266.97                        |
| 2020 | 5     | 24  | 12     | 890    | 0.840134      | 273.0            | 453.7            | 663.7            |                       | -                             | 53.67                         | 263.71                        |
| 2020 | 5     | 24  | 13     | 869.8  | 0.883165      | 287.0            | 476.9            | 697.7            |                       | -                             | 97.11                         | 317.90                        |
| 2020 | 5     | 24  | 14     | 872.7  | 0.846817      | 275.2            | 457.3            | 669.0            |                       | -                             | 74.58                         | 286.29                        |
| 2020 | 5     | 24  | 15     | 839.6  | 0.882435      | 286.8            | 476.5            | 697.1            |                       | -                             | 126.91                        | 347.52                        |
| 2020 | 5     | 24  | 16     | 873.7  | 0.878177      | 285.4            | 474.2            | 693.8            |                       | -                             | 90.52                         | 310.06                        |
| 2020 | 5     | 24  | 17     | 929.2  | 0.868708      | 282.3            | 469.1            | 686.3            |                       | -                             | 29.90                         | 247.08                        |
| 2020 | 5     | 24  | 18     | 898.4  | 0.768688      | 249.8            | 415.1            | 607.3            |                       | -                             | 6.69                          | 198.86                        |
| 2020 | 5     | 24  | 19     | 903.6  | 0.801557      | 260.5            | 432.8            | 633.2            |                       | -                             | 19.24                         | 219.63                        |
| 2020 | 5     | 24  | 20     | 881.2  | 0.765395      | 248.8            | 413.3            | 604.7            |                       | -                             | 22.11                         | 213.46                        |
| 2020 | 5     | 24  | 21     | 947.1  | 0.744088      | 241.8            | 401.8            | 587.8            |                       | -                             | -                             | 130.73                        |
| 2020 | 5     | 24  | 22     | 904.5  | 0.752939      | 244.7            | 406.6            | 594.8            |                       | -                             | -                             | 180.32                        |
| 2020 | 5     | 24  | 23     | 806.1  | 0.761653      | 247.5            | 411.3            | 601.7            |                       | -                             | 95.19                         | 285.61                        |
| 2020 | 5     | 24  | 24     | 752.1  | 0.723413      | 235.1            | 390.6            | 571.5            |                       | -                             | 128.54                        | 309.40                        |
| 2020 | 5     | 25  | 1      | 711.2  | 0.617509      | 200.7            | 333.5            | 487.8            |                       | -                             | 112.25                        | 266.63                        |
| 2020 | 5     | 25  | 2      | 701    | 0.472089      | 153.4            | 254.9            | 373.0            |                       | -                             | 43.93                         | 161.95                        |
| 2020 | 5     | 25  | 3      | 661.3  | 0.363328      | 118.1            | 196.2            | 287.0            |                       | -                             | 24.90                         | 115.73                        |
| 2020 | 5     | 25  | 4      | 685    | 0.173323      | 56.3             | 93.6             | 136.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 5      | 697.3  | 0.173242      | 56.3             | 93.6             | 136.9            |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 6      | 738.4  | 0.165137      | 53.7             | 89.2             | 130.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 7      | 789.5  | 0.064694      | 21.0             | 34.9             | 51.1             |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 8      | 875.1  | 0.046153      | 15.0             | 24.9             | 36.5             |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 9      | 968.6  | 0.071965      | 23.4             | 38.9             | 56.9             |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 10     | 1005.3 | 0.118688      | 38.6             | 64.1             | 93.8             |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 11     | 1007.9 | 0.074815      | 24.3             | 40.4             | 59.1             |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 12     | 992    | 0.110923      | 36.0             | 59.9             | 87.6             |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 13     | 970.7  | 0.170212      | 55.3             | 91.9             | 134.5            |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 14     | 964.9  | 0.151667      | 49.3             | 81.9             | 119.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 15     | 964    | 0.080274      | 26.1             | 43.3             | 63.4             |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 16     | 982.1  | 0.063362      | 20.6             | 34.2             | 50.1             |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 17     | 1014.9 | 0.086548      | 28.1             | 46.7             | 68.4             |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 18     | 989.3  | 0.110364      | 35.9             | 59.6             | 87.2             |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 19     | 1058.7 | 0.139192      | 45.2             | 75.2             | 110.0            |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 20     | 1057.6 | 0.14396       | 46.8             | 77.7             | 113.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 21     | 1053.8 | 0.131144      | 42.6             | 70.8             | 103.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 22     | 981.7  | 0.147712      | 48.0             | 79.8             | 116.7            |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 23     | 870.9  | 0.11963       | 38.9             | 64.6             | 94.5             |                       | -                             | -                             | -                             |
| 2020 | 5     | 25  | 24     | 769.6  | 0.168082      | 54.6             | 90.8             | 132.8            |                       | -                             | -                             | -                             |
| 2020 | 5     | 26  | 1      | 712.4  | 0.190136      | 61.8             | 102.7            | 150.2            |                       | -                             | -                             | -                             |
| 2020 | 5     | 26  | 2      | 705    | 0.200422      | 65.1             | 108.2            | 158.3            |                       | -                             | -                             | -                             |
| 2020 | 5     | 26  | 3      | 694.1  | 0.208942      | 67.9             | 112.8            | 165.1            |                       | -                             | -                             | -                             |
| 2020 | 5     | 26  | 4      | 712.7  | 0.105977      | 34.4             | 57.2             | 83.7             |                       | -                             | -                             | -                             |
| 2020 | 5     | 26  | 5      | 750.6  | 0.190654      | 62.0             | 103.0            | 150.6            |                       | -                             | -                             | -                             |
| 2020 | 5     | 26  | 6      | 874    | 0.133621      | 43.4             | 72.2             | 105.6            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 5     | 26  | 7      | 983.2  | 0.082772   | 26.9          | 44.7          | 65.4          |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 8      | 1059.6 | 0.064969   | 21.1          | 35.1          | 51.3          |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 9      | 1079.3 | 0.094829   | 30.8          | 51.2          | 74.9          |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 10     | 1072.4 | 0.094311   | 30.7          | 50.9          | 74.5          |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 11     | 1030.5 | 0.092556   | 30.1          | 50.0          | 73.1          |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 12     | 1065.9 | 0.076276   | 24.8          | 41.2          | 60.3          |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 13     | 1052.6 | 0.086375   | 28.1          | 46.6          | 68.2          |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 14     | 1028.4 | 0.182699   | 59.4          | 98.7          | 144.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 15     | 1008.3 | 0.186721   | 60.7          | 100.8         | 147.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 16     | 1043.2 | 0.215874   | 70.2          | 116.6         | 170.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 17     | 1072.9 | 0.228718   | 74.3          | 123.5         | 180.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 18     | 1084.6 | 0.240412   | 78.1          | 129.8         | 189.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 19     | 1085.6 | 0.223678   | 72.7          | 120.8         | 176.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 20     | 1064   | 0.255337   | 83.0          | 137.9         | 201.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 21     | 1031.7 | 0.405428   | 131.8         | 218.9         | 320.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 22     | 994.8  | 0.493309   | 160.3         | 266.4         | 389.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 23     | 902.4  | 0.461131   | 149.9         | 249.0         | 364.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 26  | 24     | 801.5  | 0.339261   | 110.3         | 183.2         | 268.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 1      | 743.2  | 0.330428   | 107.4         | 178.4         | 261.0         |                    | -                          | -                          | 7.84                       |
| 2020 | 5     | 27  | 2      | 724.6  | 0.429854   | 139.7         | 232.1         | 339.6         |                    | -                          | -                          | 104.99                     |
| 2020 | 5     | 27  | 3      | 720.8  | 0.519764   | 168.9         | 280.7         | 410.6         |                    | -                          | 49.87                      | 179.81                     |
| 2020 | 5     | 27  | 4      | 740.7  | 0.612461   | 199.0         | 330.7         | 483.8         |                    | -                          | 80.03                      | 233.14                     |
| 2020 | 5     | 27  | 5      | 775.4  | 0.547288   | 177.9         | 295.5         | 432.4         |                    | -                          | 10.14                      | 146.96                     |
| 2020 | 5     | 27  | 6      | 863.1  | 0.556346   | 180.8         | 300.4         | 439.5         |                    | -                          | -                          | 66.41                      |
| 2020 | 5     | 27  | 7      | 1031.7 | 0.556737   | 180.9         | 300.6         | 439.8         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 8      | 1068.5 | 0.558085   | 181.4         | 301.4         | 440.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 9      | 1060.9 | 0.517721   | 168.3         | 279.6         | 409.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 10     | 1093.1 | 0.36499    | 118.6         | 197.1         | 288.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 11     | 1100.6 | 0.479293   | 155.8         | 258.8         | 378.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 12     | 1100.6 | 0.557328   | 181.1         | 301.0         | 440.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 13     | 1079.8 | 0.561281   | 182.4         | 303.1         | 443.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 14     | 1061.3 | 0.576004   | 187.2         | 311.0         | 455.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 15     | 1101.8 | 0.493878   | 160.5         | 266.7         | 390.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 16     | 1124.2 | 0.632351   | 205.5         | 341.5         | 499.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 17     | 1167.2 | 0.468983   | 152.4         | 253.3         | 370.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 18     | 1105.5 | 0.416591   | 135.4         | 225.0         | 329.1         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 19     | 1105.2 | 0.293531   | 95.4          | 158.5         | 231.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 20     | 1091.1 | 0.245803   | 79.9          | 132.7         | 194.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 21     | 1096.6 | 0.133804   | 43.5          | 72.3          | 105.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 22     | 1067   | 0.105501   | 34.3          | 57.0          | 83.3          |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 23     | 998.6  | 0.072202   | 23.5          | 39.0          | 57.0          |                    | -                          | -                          | -                          |
| 2020 | 5     | 27  | 24     | 894.9  | 0.059985   | 19.5          | 32.4          | 47.4          |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 1      | 839.6  | 0.078154   | 25.4          | 42.2          | 61.7          |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 2      | 814.9  | 0.043905   | 14.3          | 23.7          | 34.7          |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 3      | 764.3  | 0.028401   | 9.2           | 15.3          | 22.4          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 5     | 28  | 4      | 782.6  | 0.030723   | 10.0          | 16.6          | 24.3          |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 5      | 822.5  | 0.028155   | 9.2           | 15.2          | 22.2          |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 6      | 936.4  | 0.041785   | 13.6          | 22.6          | 33.0          |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 7      | 1053.8 | 0.079563   | 25.9          | 43.0          | 62.9          |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 8      | 1117.2 | 0.130271   | 42.3          | 70.3          | 102.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 9      | 1112.9 | 0.135177   | 43.9          | 73.0          | 106.8         |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 10     | 1081.7 | 0.061119   | 19.9          | 33.0          | 48.3          |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 11     | 1051   | 0.038853   | 12.6          | 21.0          | 30.7          |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 12     | 1078.7 | 0.031518   | 10.2          | 17.0          | 24.9          |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 13     | 1101.7 | 0.023568   | 7.7           | 12.7          | 18.6          |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 14     | 1085.8 | 0.044117   | 14.3          | 23.8          | 34.9          |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 15     | 1080.3 | 0.061484   | 20.0          | 33.2          | 48.6          |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 16     | 1106.7 | 0.098756   | 32.1          | 53.3          | 78.0          |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 17     | 1136.5 | 0.186867   | 60.7          | 100.9         | 147.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 18     | 1068.5 | 0.270001   | 87.8          | 145.8         | 213.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 19     | 1121.4 | 0.337034   | 109.5         | 182.0         | 266.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 20     | 1101   | 0.329686   | 107.1         | 178.0         | 260.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 21     | 1066.6 | 0.286789   | 93.2          | 154.9         | 226.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 22     | 1033.4 | 0.228946   | 74.4          | 123.6         | 180.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 23     | 979.9  | 0.328305   | 106.7         | 177.3         | 259.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 28  | 24     | 883.6  | 0.291592   | 94.8          | 157.5         | 230.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 1      | 832.8  | 0.361904   | 117.6         | 195.4         | 285.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 2      | 791.4  | 0.387436   | 125.9         | 209.2         | 306.1         |                    | -                          | -                          | 4.67                       |
| 2020 | 5     | 29  | 3      | 797.5  | 0.438209   | 142.4         | 236.6         | 346.2         |                    | -                          | -                          | 38.69                      |
| 2020 | 5     | 29  | 4      | 814.9  | 0.481182   | 156.4         | 259.8         | 380.1         |                    | -                          | -                          | 55.23                      |
| 2020 | 5     | 29  | 5      | 843.8  | 0.515055   | 167.4         | 278.1         | 406.9         |                    | -                          | -                          | 53.09                      |
| 2020 | 5     | 29  | 6      | 970.4  | 0.590753   | 192.0         | 319.0         | 466.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 7      | 1092.9 | 0.585554   | 190.3         | 316.2         | 462.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 8      | 1139   | 0.611028   | 198.6         | 330.0         | 482.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 9      | 1161.5 | 0.636302   | 206.8         | 343.6         | 502.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 10     | 1151.1 | 0.551254   | 179.2         | 297.7         | 435.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 11     | 1138.3 | 0.595352   | 193.5         | 321.5         | 470.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 12     | 1118   | 0.666232   | 216.5         | 359.8         | 526.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 13     | 1117.2 | 0.744905   | 242.1         | 402.2         | 588.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 14     | 1089.4 | 0.720693   | 234.2         | 389.2         | 569.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 15     | 1079.8 | 0.720077   | 234.0         | 388.8         | 568.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 16     | 1098.4 | 0.682037   | 221.7         | 368.3         | 538.8         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 17     | 1125.7 | 0.729376   | 237.0         | 393.9         | 576.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 18     | 1057.6 | 0.696231   | 226.3         | 376.0         | 550.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 29  | 19     | 1026.8 | 0.751316   | 244.2         | 405.7         | 593.5         |                    | -                          | -                          | 56.74                      |
| 2020 | 5     | 29  | 20     | 1027.1 | 0.740567   | 240.7         | 399.9         | 585.0         |                    | -                          | -                          | 47.95                      |
| 2020 | 5     | 29  | 21     | 1013.3 | 0.773579   | 251.4         | 417.7         | 611.1         |                    | -                          | -                          | 87.83                      |
| 2020 | 5     | 29  | 22     | 988    | 0.792558   | 257.6         | 428.0         | 626.1         |                    | -                          | -                          | 128.12                     |
| 2020 | 5     | 29  | 23     | 976.9  | 0.782771   | 254.4         | 422.7         | 618.4         |                    | -                          | -                          | 131.49                     |
| 2020 | 5     | 29  | 24     | 888.2  | 0.677387   | 220.2         | 365.8         | 535.1         |                    | -                          | -                          | 136.94                     |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 5     | 30  | 1      | 824.1  | 0.713621   | 231.9         | 385.4         | 563.8         |                    | -                          | 51.26                      | 229.66                     |
| 2020 | 5     | 30  | 2      | 799.7  | 0.716707   | 232.9         | 387.0         | 566.2         |                    | -                          | 77.32                      | 256.50                     |
| 2020 | 5     | 30  | 3      | 790.1  | 0.677124   | 220.1         | 365.6         | 534.9         |                    | -                          | 65.55                      | 234.83                     |
| 2020 | 5     | 30  | 4      | 800.4  | 0.650181   | 211.3         | 351.1         | 513.6         |                    | -                          | 40.70                      | 203.24                     |
| 2020 | 5     | 30  | 5      | 804.6  | 0.573351   | 186.3         | 309.6         | 452.9         |                    | -                          | -                          | 138.35                     |
| 2020 | 5     | 30  | 6      | 813.6  | 0.387388   | 125.9         | 209.2         | 306.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 7      | 883.9  | 0.369315   | 120.0         | 199.4         | 291.8         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 8      | 943.7  | 0.200888   | 65.3          | 108.5         | 158.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 9      | 1020.1 | 0.188311   | 61.2          | 101.7         | 148.8         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 10     | 985.2  | 0.229488   | 74.6          | 123.9         | 181.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 11     | 982.1  | 0.154073   | 50.1          | 83.2          | 121.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 12     | 974.9  | 0.129084   | 42.0          | 69.7          | 102.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 13     | 934.8  | 0.101588   | 33.0          | 54.9          | 80.3          |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 14     | 936.8  | 0.13751    | 44.7          | 74.3          | 108.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 15     | 953.1  | 0.139644   | 45.4          | 75.4          | 110.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 16     | 978.2  | 0.172771   | 56.2          | 93.3          | 136.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 17     | 1014.7 | 0.161958   | 52.6          | 87.5          | 127.9         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 18     | 985.4  | 0.145886   | 47.4          | 78.8          | 115.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 19     | 958.3  | 0.184506   | 60.0          | 99.6          | 145.8         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 20     | 933.2  | 0.250214   | 81.3          | 135.1         | 197.7         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 21     | 967.7  | 0.158751   | 51.6          | 85.7          | 125.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 22     | 959    | 0.130335   | 42.4          | 70.4          | 103.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 23     | 884.2  | 0.258037   | 83.9          | 139.3         | 203.8         |                    | -                          | -                          | -                          |
| 2020 | 5     | 30  | 24     | 832.8  | 0.264796   | 86.1          | 143.0         | 209.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 1      | 762.4  | 0.274174   | 89.1          | 148.1         | 216.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 2      | 753.5  | 0.284764   | 92.5          | 153.8         | 225.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 3      | 726.9  | 0.369176   | 120.0         | 199.4         | 291.6         |                    | -                          | -                          | 54.75                      |
| 2020 | 5     | 31  | 4      | 699.2  | 0.489035   | 158.9         | 264.1         | 386.3         |                    | -                          | 54.88                      | 177.14                     |
| 2020 | 5     | 31  | 5      | 704.6  | 0.447365   | 145.4         | 241.6         | 353.4         |                    | -                          | 26.98                      | 138.82                     |
| 2020 | 5     | 31  | 6      | 719.7  | 0.409972   | 133.2         | 221.4         | 323.9         |                    | -                          | -                          | 94.18                      |
| 2020 | 5     | 31  | 7      | 805.3  | 0.395745   | 128.6         | 213.7         | 312.6         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 8      | 904.6  | 0.416477   | 135.4         | 224.9         | 329.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 9      | 982.9  | 0.378459   | 123.0         | 204.4         | 299.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 10     | 1032.5 | 0.377745   | 122.8         | 204.0         | 298.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 11     | 1054.1 | 0.430701   | 140.0         | 232.6         | 340.3         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 12     | 1020   | 0.395613   | 128.6         | 213.6         | 312.5         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 13     | 961.7  | 0.401722   | 130.6         | 216.9         | 317.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 14     | 968.7  | 0.440631   | 143.2         | 237.9         | 348.1         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 15     | 994.7  | 0.470084   | 152.8         | 253.8         | 371.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 16     | 1002   | 0.436664   | 141.9         | 235.8         | 345.0         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 17     | 971.9  | 0.281132   | 91.4          | 151.8         | 222.1         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 18     | 987.1  | 0.214023   | 69.6          | 115.6         | 169.1         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 19     | 989.4  | 0.171106   | 55.6          | 92.4          | 135.2         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 20     | 966.7  | 0.183612   | 59.7          | 99.2          | 145.1         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 21     | 991.9  | 0.187794   | 61.0          | 101.4         | 148.4         |                    | -                          | -                          | -                          |



| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 5     | 31  | 22     | 950.2  | 0.186522   | 60.6          | 100.7         | 147.4         |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 23     | 852.5  | 0.111529   | 36.2          | 60.2          | 88.1          |                    | -                          | -                          | -                          |
| 2020 | 5     | 31  | 24     | 786.2  | 0.121843   | 39.6          | 65.8          | 96.3          |                    | -                          | -                          | -                          |
| 2020 | 6     | 1   | 1      | 714.7  | 0.078383   | 25.5          | 42.3          | 61.9          |                    | -                          | -                          | -                          |
| 2020 | 6     | 1   | 2      | 687.3  | 0.075958   | 24.7          | 41.0          | 60.0          |                    | -                          | -                          | -                          |
| 2020 | 6     | 1   | 3      | 676.5  | 0.112472   | 36.6          | 60.7          | 88.9          |                    | -                          | -                          | -                          |
| 2020 | 6     | 1   | 4      | 694.1  | 0.141301   | 45.9          | 76.3          | 111.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 1   | 5      | 743    | 0.238641   | 77.6          | 128.9         | 188.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 1   | 6      | 882.7  | 0.374102   | 121.6         | 202.0         | 295.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 1   | 7      | 1056.8 | 0.503242   | 163.6         | 271.8         | 397.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 1   | 8      | 1152.7 | 0.470538   | 152.9         | 254.1         | 371.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 1   | 9      | 1116.1 | 0.550359   | 178.9         | 297.2         | 434.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 1   | 10     | 1105.5 | 0.643193   | 209.0         | 347.3         | 508.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 1   | 11     | 1099.3 | 0.752284   | 244.5         | 406.2         | 594.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 1   | 12     | 1121.3 | 0.826507   | 268.6         | 446.3         | 652.9         |                    | -                          | -                          | 21.64                      |
| 2020 | 6     | 1   | 13     | 1105.6 | 0.758201   | 246.4         | 409.4         | 599.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 1   | 14     | 1094.2 | 0.843087   | 274.0         | 455.3         | 666.0         |                    | -                          | -                          | 61.84                      |
| 2020 | 6     | 1   | 15     | 1086.3 | 0.869505   | 282.6         | 469.5         | 686.9         |                    | -                          | -                          | 90.61                      |
| 2020 | 6     | 1   | 16     | 1155.2 | 0.90045    | 292.6         | 486.2         | 711.4         |                    | -                          | -                          | 46.16                      |
| 2020 | 6     | 1   | 17     | 1150.6 | 0.903619   | 293.7         | 488.0         | 713.9         |                    | -                          | -                          | 53.26                      |
| 2020 | 6     | 1   | 18     | 1070.1 | 0.906427   | 294.6         | 489.5         | 716.1         |                    | -                          | -                          | 135.98                     |
| 2020 | 6     | 1   | 19     | 1070.1 | 0.90835    | 295.2         | 490.5         | 717.6         |                    | -                          | -                          | 137.50                     |
| 2020 | 6     | 1   | 20     | 1026.8 | 0.896832   | 291.5         | 484.3         | 708.5         |                    | -                          | -                          | 171.70                     |
| 2020 | 6     | 1   | 21     | 1038   | 0.92958    | 302.1         | 502.0         | 734.4         |                    | -                          | -                          | 186.37                     |
| 2020 | 6     | 1   | 22     | 995.1  | 0.85628    | 278.3         | 462.4         | 676.5         |                    | -                          | -                          | 171.36                     |
| 2020 | 6     | 1   | 23     | 943.2  | 0.400335   | 130.1         | 216.2         | 316.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 1   | 24     | 857.2  | 0.57619    | 187.3         | 311.1         | 455.2         |                    | -                          | -                          | 87.99                      |
| 2020 | 6     | 2   | 1      | 797.1  | 0.574      | 186.6         | 310.0         | 453.5         |                    | -                          | 2.86                       | 146.36                     |
| 2020 | 6     | 2   | 2      | 748.8  | 0.584532   | 190.0         | 315.6         | 461.8         |                    | -                          | 56.85                      | 202.98                     |
| 2020 | 6     | 2   | 3      | 738    | 0.592476   | 192.6         | 319.9         | 468.1         |                    | -                          | 71.94                      | 220.06                     |
| 2020 | 6     | 2   | 4      | 755.2  | 0.541215   | 175.9         | 292.3         | 427.6         |                    | -                          | 27.06                      | 162.36                     |
| 2020 | 6     | 2   | 5      | 777.6  | 0.500727   | 162.7         | 270.4         | 395.6         |                    | -                          | -                          | 107.97                     |
| 2020 | 6     | 2   | 6      | 882.5  | 0.501557   | 163.0         | 270.8         | 396.2         |                    | -                          | -                          | 3.73                       |
| 2020 | 6     | 2   | 7      | 1027.2 | 0.477439   | 155.2         | 257.8         | 377.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 2   | 8      | 1164   | 0.410433   | 133.4         | 221.6         | 324.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 2   | 9      | 1170.2 | 0.35688    | 116.0         | 192.7         | 281.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 2   | 10     | 1157.2 | 0.342991   | 111.5         | 185.2         | 271.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 2   | 11     | 1164.1 | 0.300278   | 97.6          | 162.1         | 237.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 2   | 12     | 1158.7 | 0.383218   | 124.5         | 206.9         | 302.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 2   | 13     | 1191   | 0.374986   | 121.9         | 202.5         | 296.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 2   | 14     | 1128.5 | 0.363819   | 118.2         | 196.5         | 287.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 2   | 15     | 1163.5 | 0.289095   | 94.0          | 156.1         | 228.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 2   | 16     | 1253.7 | 0.211062   | 68.6          | 114.0         | 166.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 2   | 17     | 1277.7 | 0.237539   | 77.2          | 128.3         | 187.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 2   | 18     | 1206   | 0.300739   | 97.7          | 162.4         | 237.6         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 6     | 2   | 19     | 1266.2 | 0.237833      | 77.3             | 128.4            | 187.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 2   | 20     | 1160.5 | 0.22993       | 74.7             | 124.2            | 181.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 2   | 21     | 1106.8 | 0.278629      | 90.6             | 150.5            | 220.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 2   | 22     | 1019.7 | 0.28944       | 94.1             | 156.3            | 228.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 2   | 23     | 961.5  | 0.250829      | 81.5             | 135.4            | 198.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 2   | 24     | 841.4  | 0.265798      | 86.4             | 143.5            | 210.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 1      | 782.1  | 0.295288      | 96.0             | 159.5            | 233.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 2      | 763.9  | 0.303901      | 98.8             | 164.1            | 240.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 3      | 745.4  | 0.271008      | 88.1             | 146.3            | 214.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 4      | 745.9  | 0.220764      | 71.7             | 119.2            | 174.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 5      | 790.1  | 0.161335      | 52.4             | 87.1             | 127.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 6      | 924.7  | 0.138293      | 44.9             | 74.7             | 109.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 7      | 1088.3 | 0.132173      | 43.0             | 71.4             | 104.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 8      | 1167.4 | 0.104983      | 34.1             | 56.7             | 82.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 9      | 1139.3 | 0.093596      | 30.4             | 50.5             | 73.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 10     | 1133.5 | 0.139346      | 45.3             | 75.2             | 110.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 11     | 1136.3 | 0.164356      | 53.4             | 88.8             | 129.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 12     | 1112.8 | 0.135567      | 44.1             | 73.2             | 107.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 13     | 1053.1 | 0.225488      | 73.3             | 121.8            | 178.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 14     | 1052.9 | 0.280818      | 91.3             | 151.6            | 221.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 15     | 1042.8 | 0.302644      | 98.4             | 163.4            | 239.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 16     | 1086.5 | 0.286634      | 93.2             | 154.8            | 226.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 17     | 1071.5 | 0.27968       | 90.9             | 151.0            | 220.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 18     | 990.1  | 0.328089      | 106.6            | 177.2            | 259.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 19     | 1010.1 | 0.352277      | 114.5            | 190.2            | 278.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 20     | 1040.5 | 0.362452      | 117.8            | 195.7            | 286.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 21     | 1057.2 | 0.312874      | 101.7            | 169.0            | 247.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 22     | 1005.2 | 0.230224      | 74.8             | 124.3            | 181.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 23     | 962.7  | 0.203808      | 66.2             | 110.1            | 161.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 3   | 24     | 845.5  | 0.192558      | 62.6             | 104.0            | 152.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 1      | 790.7  | 0.175662      | 57.1             | 94.9             | 138.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 2      | 759.2  | 0.192355      | 62.5             | 103.9            | 152.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 3      | 770.2  | 0.111072      | 36.1             | 60.0             | 87.7             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 4      | 777.3  | 0.118371      | 38.5             | 63.9             | 93.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 5      | 802.7  | 0.108803      | 35.4             | 58.8             | 86.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 6      | 885.3  | 0.114815      | 37.3             | 62.0             | 90.7             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 7      | 1027.9 | 0.068352      | 22.2             | 36.9             | 54.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 8      | 1094.7 | 0.050826      | 16.5             | 27.4             | 40.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 9      | 1141.1 | 0.04035       | 13.1             | 21.8             | 31.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 10     | 1117   | 0.032154      | 10.5             | 17.4             | 25.4             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 11     | 1132.7 | 0.048307      | 15.7             | 26.1             | 38.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 12     | 1152.6 | 0.05432       | 17.7             | 29.3             | 42.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 13     | 1162.1 | 0.046712      | 15.2             | 25.2             | 36.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 14     | 1108   | 0.039664      | 12.9             | 21.4             | 31.3             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 15     | 1098.6 | 0.04279       | 13.9             | 23.1             | 33.8             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 6     | 4   | 16     | 1155.2 | 0.04753       | 15.4             | 25.7             | 37.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 17     | 1165.7 | 0.054046      | 17.6             | 29.2             | 42.7             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 18     | 1124.6 | 0.063613      | 20.7             | 34.4             | 50.3             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 19     | 1080.4 | 0.056885      | 18.5             | 30.7             | 44.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 20     | 1105.8 | 0.061889      | 20.1             | 33.4             | 48.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 21     | 1058.7 | 0.075428      | 24.5             | 40.7             | 59.6             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 22     | 991.9  | 0.084343      | 27.4             | 45.5             | 66.6             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 23     | 889.4  | 0.084441      | 27.4             | 45.6             | 66.7             |                       | -                             | -                             | -                             |
| 2020 | 6     | 4   | 24     | 795.8  | 0.057702      | 18.8             | 31.2             | 45.6             |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 1      | 759.7  | 0.078575      | 25.5             | 42.4             | 62.1             |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 2      | 718    | 0.078571      | 25.5             | 42.4             | 62.1             |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 3      | 722.9  | 0.078312      | 25.5             | 42.3             | 61.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 4      | 718.7  | 0.113338      | 36.8             | 61.2             | 89.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 5      | 744.5  | 0.082622      | 26.9             | 44.6             | 65.3             |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 6      | 861.9  | 0.134219      | 43.6             | 72.5             | 106.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 7      | 1019   | 0.216676      | 70.4             | 117.0            | 171.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 8      | 1075.9 | 0.268391      | 87.2             | 144.9            | 212.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 9      | 1114.9 | 0.274382      | 89.2             | 148.2            | 216.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 10     | 1132.7 | 0.313518      | 101.9            | 169.3            | 247.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 11     | 1115.5 | 0.233912      | 76.0             | 126.3            | 184.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 12     | 1155.8 | 0.202987      | 66.0             | 109.6            | 160.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 13     | 1104.1 | 0.207148      | 67.3             | 111.9            | 163.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 14     | 1054.7 | 0.204773      | 66.6             | 110.6            | 161.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 15     | 1085.8 | 0.179312      | 58.3             | 96.8             | 141.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 16     | 1100.9 | 0.124214      | 40.4             | 67.1             | 98.1             |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 17     | 1029.5 | 0.112738      | 36.6             | 60.9             | 89.1             |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 18     | 967.8  | 0.149063      | 48.4             | 80.5             | 117.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 19     | 933.1  | 0.197856      | 64.3             | 106.8            | 156.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 20     | 923.4  | 0.13958       | 45.4             | 75.4             | 110.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 21     | 937.4  | 0.137808      | 44.8             | 74.4             | 108.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 22     | 900.1  | 0.15332       | 49.8             | 82.8             | 121.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 23     | 872.7  | 0.105255      | 34.2             | 56.8             | 83.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 5   | 24     | 784.6  | 0.110214      | 35.8             | 59.5             | 87.1             |                       | -                             | -                             | -                             |
| 2020 | 6     | 6   | 1      | 702.3  | 0.104421      | 33.9             | 56.4             | 82.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 6   | 2      | 675.1  | 0.122966      | 40.0             | 66.4             | 97.1             |                       | -                             | -                             | -                             |
| 2020 | 6     | 6   | 3      | 672.1  | 0.155217      | 50.4             | 83.8             | 122.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 6   | 4      | 685.3  | 0.16687       | 54.2             | 90.1             | 131.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 6   | 5      | 660.6  | 0.208775      | 67.9             | 112.7            | 164.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 6   | 6      | 669.9  | 0.220612      | 71.7             | 119.1            | 174.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 6   | 7      | 772.5  | 0.140168      | 45.6             | 75.7             | 110.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 6   | 8      | 859    | 0.144695      | 47.0             | 78.1             | 114.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 6   | 9      | 915.9  | 0.107613      | 35.0             | 58.1             | 85.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 6   | 10     | 920    | 0.094028      | 30.6             | 50.8             | 74.3             |                       | -                             | -                             | -                             |
| 2020 | 6     | 6   | 11     | 926.2  | 0.105429      | 34.3             | 56.9             | 83.3             |                       | -                             | -                             | -                             |
| 2020 | 6     | 6   | 12     | 961.5  | 0.127266      | 41.4             | 68.7             | 100.5            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 6     | 6   | 13     | 934.6  | 0.1545     | 50.2          | 83.4          | 122.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 6   | 14     | 957.4  | 0.156968   | 51.0          | 84.8          | 124.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 6   | 15     | 983.5  | 0.173213   | 56.3          | 93.5          | 136.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 6   | 16     | 1013.4 | 0.162713   | 52.9          | 87.9          | 128.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 6   | 17     | 1103.8 | 0.185832   | 60.4          | 100.3         | 146.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 6   | 18     | 1058.7 | 0.23574    | 76.6          | 127.3         | 186.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 6   | 19     | 1033.8 | 0.180944   | 58.8          | 97.7          | 142.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 6   | 20     | 981.6  | 0.20799    | 67.6          | 112.3         | 164.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 6   | 21     | 965.8  | 0.231614   | 75.3          | 125.1         | 183.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 6   | 22     | 939.1  | 0.219086   | 71.2          | 118.3         | 173.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 6   | 23     | 878.5  | 0.221718   | 72.1          | 119.7         | 175.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 6   | 24     | 835.9  | 0.182843   | 59.4          | 98.7          | 144.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 1      | 761.9  | 0.262385   | 85.3          | 141.7         | 207.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 2      | 719.8  | 0.219717   | 71.4          | 118.6         | 173.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 3      | 689.5  | 0.252948   | 82.2          | 136.6         | 199.8         |                    | -                          | -                          | 0.33                       |
| 2020 | 6     | 7   | 4      | 701.3  | 0.27129    | 88.2          | 146.5         | 214.3         |                    | -                          | -                          | 3.02                       |
| 2020 | 6     | 7   | 5      | 660.1  | 0.254499   | 82.7          | 137.4         | 201.1         |                    | -                          | -                          | 30.95                      |
| 2020 | 6     | 7   | 6      | 677.8  | 0.293684   | 95.4          | 158.6         | 232.0         |                    | -                          | -                          | 44.21                      |
| 2020 | 6     | 7   | 7      | 754.6  | 0.319932   | 104.0         | 172.8         | 252.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 8      | 886.3  | 0.316361   | 102.8         | 170.8         | 249.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 9      | 945.5  | 0.292972   | 95.2          | 158.2         | 231.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 10     | 1013.8 | 0.305604   | 99.3          | 165.0         | 241.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 11     | 1048.1 | 0.245597   | 79.8          | 132.6         | 194.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 12     | 1047.7 | 0.282475   | 91.8          | 152.5         | 223.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 13     | 1039.6 | 0.237034   | 77.0          | 128.0         | 187.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 14     | 1000.8 | 0.234523   | 76.2          | 126.6         | 185.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 15     | 1029.5 | 0.231222   | 75.1          | 124.9         | 182.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 16     | 1030.4 | 0.261958   | 85.1          | 141.5         | 206.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 17     | 1029.9 | 0.305672   | 99.3          | 165.1         | 241.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 18     | 1044.9 | 0.275898   | 89.7          | 149.0         | 218.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 19     | 1015.8 | 0.196622   | 63.9          | 106.2         | 155.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 20     | 1025.7 | 0.150797   | 49.0          | 81.4          | 119.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 21     | 992.3  | 0.10927    | 35.5          | 59.0          | 86.3          |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 22     | 921.3  | 0.200807   | 65.3          | 108.4         | 158.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 23     | 799    | 0.207597   | 67.5          | 112.1         | 164.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 7   | 24     | 716    | 0.160207   | 52.1          | 86.5          | 126.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 1      | 712.1  | 0.144148   | 46.8          | 77.8          | 113.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 2      | 678.2  | 0.137664   | 44.7          | 74.3          | 108.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 3      | 678.3  | 0.163457   | 53.1          | 88.3          | 129.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 4      | 687.2  | 0.175547   | 57.1          | 94.8          | 138.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 5      | 713.2  | 0.169657   | 55.1          | 91.6          | 134.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 6      | 843.7  | 0.143618   | 46.7          | 77.6          | 113.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 7      | 1008   | 0.131122   | 42.6          | 70.8          | 103.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 8      | 1143.8 | 0.091069   | 29.6          | 49.2          | 71.9          |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 9      | 1141.1 | 0.085425   | 27.8          | 46.1          | 67.5          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 6     | 8   | 10     | 1160.7 | 0.061383   | 19.9          | 33.1          | 48.5          |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 11     | 1123   | 0.057787   | 18.8          | 31.2          | 45.7          |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 12     | 1088.4 | 0.041369   | 13.4          | 22.3          | 32.7          |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 13     | 1047.2 | 0.040351   | 13.1          | 21.8          | 31.9          |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 14     | 1055.5 | 0.027854   | 9.1           | 15.0          | 22.0          |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 15     | 1070.4 | 0.026105   | 8.5           | 14.1          | 20.6          |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 16     | 1086.9 | 0.02384    | 7.7           | 12.9          | 18.8          |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 17     | 1076.5 | 0.033932   | 11.0          | 18.3          | 26.8          |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 18     | 1031.2 | 0.024201   | 7.9           | 13.1          | 19.1          |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 19     | 995.7  | 0.069624   | 22.6          | 37.6          | 55.0          |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 20     | 988.6  | 0.122388   | 39.8          | 66.1          | 96.7          |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 21     | 972.1  | 0.148584   | 48.3          | 80.2          | 117.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 22     | 924    | 0.150436   | 48.9          | 81.2          | 118.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 23     | 897.7  | 0.264172   | 85.9          | 142.7         | 208.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 8   | 24     | 792.8  | 0.338985   | 110.2         | 183.1         | 267.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 1      | 739.8  | 0.338487   | 110.0         | 182.8         | 267.4         |                    | -                          | -                          | 17.60                      |
| 2020 | 6     | 9   | 2      | 731.1  | 0.374521   | 121.7         | 202.2         | 295.9         |                    | -                          | -                          | 54.77                      |
| 2020 | 6     | 9   | 3      | 718.4  | 0.378717   | 123.1         | 204.5         | 299.2         |                    | -                          | -                          | 70.79                      |
| 2020 | 6     | 9   | 4      | 729.1  | 0.414725   | 134.8         | 224.0         | 327.6         |                    | -                          | -                          | 88.53                      |
| 2020 | 6     | 9   | 5      | 739    | 0.382919   | 124.4         | 206.8         | 302.5         |                    | -                          | -                          | 53.51                      |
| 2020 | 6     | 9   | 6      | 806.5  | 0.454787   | 147.8         | 245.6         | 359.3         |                    | -                          | -                          | 42.78                      |
| 2020 | 6     | 9   | 7      | 980.4  | 0.470323   | 152.9         | 254.0         | 371.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 8      | 1058.6 | 0.431394   | 140.2         | 233.0         | 340.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 9      | 1092.5 | 0.303681   | 98.7          | 164.0         | 239.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 10     | 1093.8 | 0.314161   | 102.1         | 169.6         | 248.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 11     | 1035.7 | 0.344718   | 112.0         | 186.1         | 272.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 12     | 1018.7 | 0.382692   | 124.4         | 206.7         | 302.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 13     | 1033.9 | 0.409057   | 132.9         | 220.9         | 323.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 14     | 1036.7 | 0.402225   | 130.7         | 217.2         | 317.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 15     | 1040.3 | 0.419917   | 136.5         | 226.8         | 331.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 16     | 1070.5 | 0.407176   | 132.3         | 219.9         | 321.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 17     | 1077.8 | 0.40067    | 130.2         | 216.4         | 316.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 18     | 1038.5 | 0.447023   | 145.3         | 241.4         | 353.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 19     | 949.3  | 0.448549   | 145.8         | 242.2         | 354.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 20     | 974.8  | 0.426647   | 138.7         | 230.4         | 337.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 21     | 964    | 0.405102   | 131.7         | 218.8         | 320.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 22     | 931.6  | 0.355421   | 115.5         | 191.9         | 280.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 23     | 846.5  | 0.329817   | 107.2         | 178.1         | 260.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 9   | 24     | 758    | 0.380275   | 123.6         | 205.3         | 300.4         |                    | -                          | -                          | 32.42                      |
| 2020 | 6     | 10  | 1      | 722    | 0.48077    | 156.3         | 259.6         | 379.8         |                    | -                          | 27.62                      | 147.81                     |
| 2020 | 6     | 10  | 2      | 702.1  | 0.198791   | 64.6          | 107.3         | 157.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 3      | 708.3  | 0.088929   | 28.9          | 48.0          | 70.3          |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 4      | 732.8  | 0.049331   | 16.0          | 26.6          | 39.0          |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 5      | 750.9  | 0.118408   | 38.5          | 63.9          | 93.5          |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 6      | 867    | 0.130107   | 42.3          | 70.3          | 102.8         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 6     | 10  | 7      | 1002.6 | 0.321084   | 104.4         | 173.4         | 253.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 8      | 1059.7 | 0.411249   | 133.7         | 222.1         | 324.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 9      | 1077.9 | 0.321611   | 104.5         | 173.7         | 254.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 10     | 1086.7 | 0.388028   | 126.1         | 209.5         | 306.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 11     | 1071.9 | 0.361245   | 117.4         | 195.1         | 285.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 12     | 1110.1 | 0.365678   | 118.8         | 197.5         | 288.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 13     | 1093.1 | 0.412317   | 134.0         | 222.7         | 325.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 14     | 1105.5 | 0.429106   | 139.5         | 231.7         | 339.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 15     | 1080.6 | 0.555924   | 180.7         | 300.2         | 439.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 16     | 1117.2 | 0.603564   | 196.2         | 325.9         | 476.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 17     | 1118.4 | 0.63167    | 205.3         | 341.1         | 499.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 18     | 1020.1 | 0.552501   | 179.6         | 298.4         | 436.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 19     | 1072.4 | 0.518293   | 168.4         | 279.9         | 409.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 20     | 1054.5 | 0.424924   | 138.1         | 229.5         | 335.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 21     | 1052.9 | 0.404812   | 131.6         | 218.6         | 319.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 22     | 976.2  | 0.287433   | 93.4          | 155.2         | 227.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 23     | 920.1  | 0.258127   | 83.9          | 139.4         | 203.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 10  | 24     | 824.5  | 0.237568   | 77.2          | 128.3         | 187.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 1      | 781.1  | 0.320288   | 104.1         | 173.0         | 253.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 2      | 761.3  | 0.365841   | 118.9         | 197.6         | 289.0         |                    | -                          | -                          | 17.71                      |
| 2020 | 6     | 11  | 3      | 736.9  | 0.410924   | 133.6         | 221.9         | 324.6         |                    | -                          | -                          | 77.73                      |
| 2020 | 6     | 11  | 4      | 728.3  | 0.375583   | 122.1         | 202.8         | 296.7         |                    | -                          | -                          | 58.41                      |
| 2020 | 6     | 11  | 5      | 766.5  | 0.359061   | 116.7         | 193.9         | 283.7         |                    | -                          | -                          | 7.16                       |
| 2020 | 6     | 11  | 6      | 893.9  | 0.27853    | 90.5          | 150.4         | 220.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 7      | 1023.2 | 0.226207   | 73.5          | 122.2         | 178.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 8      | 1068.8 | 0.233717   | 76.0          | 126.2         | 184.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 9      | 1094.5 | 0.304385   | 98.9          | 164.4         | 240.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 10     | 1064.2 | 0.374168   | 121.6         | 202.1         | 295.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 11     | 1044.4 | 0.349315   | 113.5         | 188.6         | 276.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 12     | 1063.3 | 0.291818   | 94.8          | 157.6         | 230.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 13     | 1050.8 | 0.315069   | 102.4         | 170.1         | 248.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 14     | 1029.9 | 0.299628   | 97.4          | 161.8         | 236.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 15     | 1031   | 0.258251   | 83.9          | 139.5         | 204.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 16     | 1031.6 | 0.246417   | 80.1          | 133.1         | 194.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 17     | 1046.3 | 0.144416   | 46.9          | 78.0          | 114.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 18     | 1027.8 | 0.126148   | 41.0          | 68.1          | 99.7          |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 19     | 968.7  | 0.139415   | 45.3          | 75.3          | 110.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 20     | 994    | 0.18335    | 59.6          | 99.0          | 144.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 21     | 984.9  | 0.139129   | 45.2          | 75.1          | 109.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 22     | 972.9  | 0.125688   | 40.8          | 67.9          | 99.3          |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 23     | 905.5  | 0.115887   | 37.7          | 62.6          | 91.6          |                    | -                          | -                          | -                          |
| 2020 | 6     | 11  | 24     | 783    | 0.116805   | 38.0          | 63.1          | 92.3          |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 1      | 751    | 0.103629   | 33.7          | 56.0          | 81.9          |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 2      | 707.9  | 0.144833   | 47.1          | 78.2          | 114.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 3      | 697.2  | 0.164456   | 53.4          | 88.8          | 129.9         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 6     | 12  | 4      | 726.3  | 0.139133   | 45.2          | 75.1          | 109.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 5      | 752.1  | 0.162696   | 52.9          | 87.9          | 128.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 6      | 831.6  | 0.127041   | 41.3          | 68.6          | 100.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 7      | 981.7  | 0.096344   | 31.3          | 52.0          | 76.1          |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 8      | 1079.4 | 0.081066   | 26.3          | 43.8          | 64.0          |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 9      | 1105.1 | 0.049906   | 16.2          | 26.9          | 39.4          |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 10     | 1094.7 | 0.041286   | 13.4          | 22.3          | 32.6          |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 11     | 1083.4 | 0.058562   | 19.0          | 31.6          | 46.3          |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 12     | 1063.2 | 0.0427     | 13.9          | 23.1          | 33.7          |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 13     | 1069.8 | 0.036575   | 11.9          | 19.8          | 28.9          |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 14     | 1031.9 | 0.045467   | 14.8          | 24.6          | 35.9          |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 15     | 1023.3 | 0.057591   | 18.7          | 31.1          | 45.5          |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 16     | 1042.3 | 0.066861   | 21.7          | 36.1          | 52.8          |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 17     | 1000.3 | 0.097107   | 31.6          | 52.4          | 76.7          |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 18     | 934.3  | 0.159807   | 51.9          | 86.3          | 126.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 19     | 917.3  | 0.153672   | 49.9          | 83.0          | 121.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 20     | 870.5  | 0.202921   | 65.9          | 109.6         | 160.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 21     | 893.5  | 0.2096     | 68.1          | 113.2         | 165.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 22     | 931.4  | 0.242886   | 78.9          | 131.2         | 191.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 23     | 847.9  | 0.241535   | 78.5          | 130.4         | 190.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 12  | 24     | 755.4  | 0.237336   | 77.1          | 128.2         | 187.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 1      | 705.9  | 0.266985   | 86.8          | 144.2         | 210.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 2      | 688.9  | 0.30736    | 99.9          | 166.0         | 242.8         |                    | -                          | -                          | 43.91                      |
| 2020 | 6     | 13  | 3      | 675.8  | 0.428618   | 139.3         | 231.5         | 338.6         |                    | -                          | 45.65                      | 152.81                     |
| 2020 | 6     | 13  | 4      | 672.6  | 0.384154   | 124.9         | 207.4         | 303.5         |                    | -                          | 24.84                      | 120.88                     |
| 2020 | 6     | 13  | 5      | 690.7  | 0.386575   | 125.6         | 208.8         | 305.4         |                    | -                          | 8.05                       | 104.69                     |
| 2020 | 6     | 13  | 6      | 707.9  | 0.363546   | 118.2         | 196.3         | 287.2         |                    | -                          | -                          | 69.30                      |
| 2020 | 6     | 13  | 7      | 779.6  | 0.556304   | 180.8         | 300.4         | 439.5         |                    | -                          | 10.80                      | 149.88                     |
| 2020 | 6     | 13  | 8      | 843.3  | 0.584688   | 190.0         | 315.7         | 461.9         |                    | -                          | -                          | 108.60                     |
| 2020 | 6     | 13  | 9      | 949    | 0.519112   | 168.7         | 280.3         | 410.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 10     | 955.6  | 0.418275   | 135.9         | 225.9         | 330.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 11     | 931.5  | 0.368203   | 119.7         | 198.8         | 290.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 12     | 946.3  | 0.353362   | 114.8         | 190.8         | 279.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 13     | 925.6  | 0.300955   | 97.8          | 162.5         | 237.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 14     | 932.3  | 0.28614    | 93.0          | 154.5         | 226.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 15     | 948    | 0.329265   | 107.0         | 177.8         | 260.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 16     | 933.5  | 0.373043   | 121.2         | 201.4         | 294.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 17     | 937.8  | 0.378054   | 122.9         | 204.1         | 298.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 18     | 924.2  | 0.299697   | 97.4          | 161.8         | 236.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 19     | 932.2  | 0.495446   | 161.0         | 267.5         | 391.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 20     | 903.9  | 0.394815   | 128.3         | 213.2         | 311.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 21     | 882.8  | 0.240279   | 78.1          | 129.8         | 189.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 22     | 905.3  | 0.300062   | 97.5          | 162.0         | 237.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 23     | 837.7  | 0.276177   | 89.8          | 149.1         | 218.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 13  | 24     | 742    | 0.292463   | 95.1          | 157.9         | 231.0         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 6     | 14  | 1      | 720.7  | 0.340304      | 110.6            | 183.8            | 268.8            |                       | -                             | -                             | 38.14                         |
| 2020 | 6     | 14  | 2      | 671.9  | 0.300358      | 97.6             | 162.2            | 237.3            |                       | -                             | -                             | 55.38                         |
| 2020 | 6     | 14  | 3      | 671.3  | 0.347862      | 113.1            | 187.8            | 274.8            |                       | -                             | 6.55                          | 93.51                         |
| 2020 | 6     | 14  | 4      | 690.6  | 0.315077      | 102.4            | 170.1            | 248.9            |                       | -                             | -                             | 48.31                         |
| 2020 | 6     | 14  | 5      | 669.1  | 0.361397      | 117.5            | 195.2            | 285.5            |                       | -                             | 16.05                         | 106.40                        |
| 2020 | 6     | 14  | 6      | 665.4  | 0.439871      | 143.0            | 237.5            | 347.5            |                       | -                             | 62.13                         | 172.10                        |
| 2020 | 6     | 14  | 7      | 730.8  | 0.425646      | 138.3            | 229.8            | 336.3            |                       | -                             | -                             | 95.46                         |
| 2020 | 6     | 14  | 8      | 820.1  | 0.32636       | 106.1            | 176.2            | 257.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 9      | 880.6  | 0.371031      | 120.6            | 200.4            | 293.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 10     | 916.7  | 0.351428      | 114.2            | 189.8            | 277.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 11     | 930.2  | 0.456919      | 148.5            | 246.7            | 361.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 12     | 895.2  | 0.439381      | 142.8            | 237.3            | 347.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 13     | 917.3  | 0.389203      | 126.5            | 210.2            | 307.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 14     | 851.5  | 0.406796      | 132.2            | 219.7            | 321.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 15     | 845.4  | 0.402319      | 130.8            | 217.3            | 317.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 16     | 889.9  | 0.40671       | 132.2            | 219.6            | 321.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 17     | 931.6  | 0.37964       | 123.4            | 205.0            | 299.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 18     | 929.2  | 0.33078       | 107.5            | 178.6            | 261.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 19     | 940.9  | 0.336706      | 109.4            | 181.8            | 266.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 20     | 959.5  | 0.351826      | 114.3            | 190.0            | 277.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 21     | 919    | 0.396121      | 128.7            | 213.9            | 312.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 22     | 852.5  | 0.408345      | 132.7            | 220.5            | 322.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 14  | 23     | 776.5  | 0.400161      | 130.1            | 216.1            | 316.1            |                       | -                             | -                             | 29.63                         |
| 2020 | 6     | 14  | 24     | 708.4  | 0.422108      | 137.2            | 227.9            | 333.5            |                       | -                             | 9.54                          | 115.07                        |
| 2020 | 6     | 15  | 1      | 680.6  | 0.404212      | 131.4            | 218.3            | 319.3            |                       | -                             | 27.67                         | 128.73                        |
| 2020 | 6     | 15  | 2      | 658.7  | 0.439255      | 142.8            | 237.2            | 347.0            |                       | -                             | 68.50                         | 178.31                        |
| 2020 | 6     | 15  | 3      | 653.4  | 0.502949      | 163.5            | 271.6            | 397.3            |                       | 0.06                          | 108.19                        | 233.93                        |
| 2020 | 6     | 15  | 4      | 666.1  | 0.524736      | 170.5            | 283.4            | 414.5            |                       | -                             | 107.26                        | 238.44                        |
| 2020 | 6     | 15  | 5      | 673.7  | 0.529523      | 172.1            | 285.9            | 418.3            |                       | -                             | 102.24                        | 234.62                        |
| 2020 | 6     | 15  | 6      | 772.2  | 0.557466      | 181.2            | 301.0            | 440.4            |                       | -                             | 18.83                         | 158.20                        |
| 2020 | 6     | 15  | 7      | 940.6  | 0.528006      | 171.6            | 285.1            | 417.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 8      | 1040.2 | 0.535545      | 174.1            | 289.2            | 423.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 9      | 1071.3 | 0.533209      | 173.3            | 287.9            | 421.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 10     | 1067.1 | 0.517487      | 168.2            | 279.4            | 408.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 11     | 1026.4 | 0.550048      | 178.8            | 297.0            | 434.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 12     | 1062.8 | 0.567677      | 184.5            | 306.5            | 448.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 13     | 1050.7 | 0.506861      | 164.7            | 273.7            | 400.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 14     | 1025.5 | 0.439412      | 142.8            | 237.3            | 347.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 15     | 1022.1 | 0.576736      | 187.4            | 311.4            | 455.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 16     | 1024.3 | 0.567925      | 184.6            | 306.7            | 448.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 17     | 1046.3 | 0.64442       | 209.4            | 348.0            | 509.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 18     | 1034.2 | 0.538777      | 175.1            | 290.9            | 425.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 19     | 1006.4 | 0.53325       | 173.3            | 288.0            | 421.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 20     | 983.9  | 0.595255      | 193.5            | 321.4            | 470.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 21     | 988.1  | 0.522793      | 169.9            | 282.3            | 413.0            |                       | -                             | -                             | -                             |



| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 6     | 15  | 22     | 946.7  | 0.452995      | 147.2            | 244.6            | 357.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 23     | 854.5  | 0.430804      | 140.0            | 232.6            | 340.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 15  | 24     | 750.1  | 0.401105      | 130.4            | 216.6            | 316.9            |                       | -                             | -                             | 56.77                         |
| 2020 | 6     | 16  | 1      | 714    | 0.413712      | 134.5            | 223.4            | 326.8            |                       | -                             | -                             | 102.83                        |
| 2020 | 6     | 16  | 2      | 684.7  | 0.367891      | 119.6            | 198.7            | 290.6            |                       | -                             | 3.96                          | 95.93                         |
| 2020 | 6     | 16  | 3      | 684.2  | 0.335704      | 109.1            | 181.3            | 265.2            |                       | -                             | -                             | 71.01                         |
| 2020 | 6     | 16  | 4      | 685    | 0.317102      | 103.1            | 171.2            | 250.5            |                       | -                             | -                             | 55.51                         |
| 2020 | 6     | 16  | 5      | 722.4  | 0.272982      | 88.7             | 147.4            | 215.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 6      | 806.2  | 0.252041      | 81.9             | 136.1            | 199.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 7      | 963.8  | 0.226763      | 73.7             | 122.5            | 179.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 8      | 1106.8 | 0.127165      | 41.3             | 68.7             | 100.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 9      | 1100.8 | 0.124073      | 40.3             | 67.0             | 98.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 10     | 1099.5 | 0.159242      | 51.8             | 86.0             | 125.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 11     | 1121.2 | 0.108688      | 35.3             | 58.7             | 85.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 12     | 1112.8 | 0.164105      | 53.3             | 88.6             | 129.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 13     | 1053.9 | 0.181507      | 59.0             | 98.0             | 143.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 14     | 1021.4 | 0.329195      | 107.0            | 177.8            | 260.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 15     | 1027.2 | 0.302313      | 98.3             | 163.2            | 238.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 16     | 1100.1 | 0.239794      | 77.9             | 129.5            | 189.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 17     | 1111.4 | 0.221303      | 71.9             | 119.5            | 174.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 18     | 1011.5 | 0.219559      | 71.4             | 118.6            | 173.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 19     | 986.5  | 0.180922      | 58.8             | 97.7             | 142.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 20     | 980.8  | 0.238452      | 77.5             | 128.8            | 188.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 21     | 977.7  | 0.211321      | 68.7             | 114.1            | 166.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 22     | 921.8  | 0.131145      | 42.6             | 70.8             | 103.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 23     | 845.7  | 0.114958      | 37.4             | 62.1             | 90.8             |                       | -                             | -                             | -                             |
| 2020 | 6     | 16  | 24     | 768    | 0.102885      | 33.4             | 55.6             | 81.3             |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 1      | 718.4  | 0.166143      | 54.0             | 89.7             | 131.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 2      | 685.2  | 0.094537      | 30.7             | 51.0             | 74.7             |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 3      | 710.7  | 0.073275      | 23.8             | 39.6             | 57.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 4      | 702.8  | 0.094859      | 30.8             | 51.2             | 74.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 5      | 739.1  | 0.055267      | 18.0             | 29.8             | 43.7             |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 6      | 841.8  | 0.094703      | 30.8             | 51.1             | 74.8             |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 7      | 980    | 0.124024      | 40.3             | 67.0             | 98.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 8      | 1076.1 | 0.119499      | 38.8             | 64.5             | 94.4             |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 9      | 1058.9 | 0.079015      | 25.7             | 42.7             | 62.4             |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 10     | 1060.3 | 0.048004      | 15.6             | 25.9             | 37.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 11     | 1052   | 0.089344      | 29.0             | 48.2             | 70.6             |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 12     | 1039.6 | 0.136388      | 44.3             | 73.6             | 107.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 13     | 993.5  | 0.115132      | 37.4             | 62.2             | 91.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 14     | 1004.9 | 0.14096       | 45.8             | 76.1             | 111.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 15     | 1030.6 | 0.127282      | 41.4             | 68.7             | 100.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 16     | 1064   | 0.182622      | 59.4             | 98.6             | 144.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 17     | 1032.6 | 0.193264      | 62.8             | 104.4            | 152.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 18     | 994.3  | 0.239788      | 77.9             | 129.5            | 189.4            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 6     | 17  | 19     | 973.4  | 0.28218       | 91.7             | 152.4            | 222.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 20     | 980.9  | 0.264019      | 85.8             | 142.6            | 208.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 21     | 983.2  | 0.256835      | 83.5             | 138.7            | 202.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 22     | 892.8  | 0.242214      | 78.7             | 130.8            | 191.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 23     | 853.7  | 0.29741       | 96.7             | 160.6            | 235.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 17  | 24     | 742    | 0.334295      | 108.6            | 180.5            | 264.1            |                       | -                             | -                             | 12.09                         |
| 2020 | 6     | 18  | 1      | 692    | 0.392162      | 127.5            | 211.8            | 309.8            |                       | -                             | 9.77                          | 107.81                        |
| 2020 | 6     | 18  | 2      | 695.1  | 0.422501      | 137.3            | 228.2            | 333.8            |                       | -                             | 23.05                         | 128.68                        |
| 2020 | 6     | 18  | 3      | 701.6  | 0.4322        | 140.5            | 233.4            | 341.4            |                       | -                             | 21.79                         | 129.84                        |
| 2020 | 6     | 18  | 4      | 690.8  | 0.345256      | 112.2            | 186.4            | 272.8            |                       | -                             | -                             | 71.95                         |
| 2020 | 6     | 18  | 5      | 724.5  | 0.397798      | 129.3            | 214.8            | 314.3            |                       | -                             | -                             | 79.76                         |
| 2020 | 6     | 18  | 6      | 816.3  | 0.432076      | 140.4            | 233.3            | 341.3            |                       | -                             | -                             | 15.04                         |
| 2020 | 6     | 18  | 7      | 967.3  | 0.368888      | 119.9            | 199.2            | 291.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 8      | 1056.5 | 0.447597      | 145.5            | 241.7            | 353.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 9      | 1091.6 | 0.473132      | 153.8            | 255.5            | 373.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 10     | 1077.8 | 0.56306       | 183.0            | 304.1            | 444.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 11     | 1120.2 | 0.61313       | 199.3            | 331.1            | 484.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 12     | 1095.2 | 0.654312      | 212.7            | 353.3            | 516.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 13     | 1108.6 | 0.691455      | 224.7            | 373.4            | 546.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 14     | 1101.1 | 0.750908      | 244.0            | 405.5            | 593.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 15     | 1050.3 | 0.748044      | 243.1            | 403.9            | 591.0            |                       | -                             | -                             | 30.65                         |
| 2020 | 6     | 18  | 16     | 1093.1 | 0.705329      | 229.2            | 380.9            | 557.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 17     | 1062.8 | 0.687257      | 223.4            | 371.1            | 542.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 18     | 1017.2 | 0.451346      | 146.7            | 243.7            | 356.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 19     | 978.2  | 0.557046      | 181.0            | 300.8            | 440.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 20     | 1000   | 0.524679      | 170.5            | 283.3            | 414.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 21     | 1004.8 | 0.44787       | 145.6            | 241.8            | 353.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 22     | 945.5  | 0.575268      | 187.0            | 310.6            | 454.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 18  | 23     | 860.9  | 0.603122      | 196.0            | 325.7            | 476.5            |                       | -                             | -                             | 105.57                        |
| 2020 | 6     | 18  | 24     | 764.1  | 0.542082      | 176.2            | 292.7            | 428.2            |                       | -                             | 18.62                         | 154.15                        |
| 2020 | 6     | 19  | 1      | 702.7  | 0.553135      | 179.8            | 298.7            | 437.0            |                       | -                             | 85.99                         | 224.28                        |
| 2020 | 6     | 19  | 2      | 696.7  | 0.403285      | 131.1            | 217.8            | 318.6            |                       | -                             | 11.07                         | 111.90                        |
| 2020 | 6     | 19  | 3      | 672.2  | 0.384607      | 125.0            | 207.7            | 303.8            |                       | -                             | 25.49                         | 121.64                        |
| 2020 | 6     | 19  | 4      | 683.2  | 0.327606      | 106.5            | 176.9            | 258.8            |                       | -                             | -                             | 65.61                         |
| 2020 | 6     | 19  | 5      | 730    | 0.258536      | 84.0             | 139.6            | 204.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 19  | 6      | 817.7  | 0.245405      | 79.8             | 132.5            | 193.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 19  | 7      | 972.5  | 0.204011      | 66.3             | 110.2            | 161.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 19  | 8      | 1017.3 | 0.169082      | 55.0             | 91.3             | 133.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 19  | 9      | 1066.7 | 0.132404      | 43.0             | 71.5             | 104.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 19  | 10     | 1081.3 | 0.177262      | 57.6             | 95.7             | 140.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 19  | 11     | 1091.6 | 0.428261      | 139.2            | 231.3            | 338.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 19  | 12     | 1053.4 | 0.199284      | 64.8             | 107.6            | 157.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 19  | 13     | 1050.3 | 0.273764      | 89.0             | 147.8            | 216.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 19  | 14     | 1054.9 | 0.424052      | 137.8            | 229.0            | 335.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 19  | 15     | 1072.4 | 0.505493      | 164.3            | 273.0            | 399.3            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 6     | 19  | 16     | 1081.3 | 0.511186   | 166.1         | 276.0         | 403.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 19  | 17     | 1027.7 | 0.450319   | 146.4         | 243.2         | 355.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 19  | 18     | 968.2  | 0.27812    | 90.4          | 150.2         | 219.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 19  | 19     | 935.4  | 0.303524   | 98.6          | 163.9         | 239.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 19  | 20     | 931.6  | 0.356269   | 115.8         | 192.4         | 281.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 19  | 21     | 923.1  | 0.272554   | 88.6          | 147.2         | 215.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 19  | 22     | 892.9  | 0.32175    | 104.6         | 173.7         | 254.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 19  | 23     | 835.3  | 0.402123   | 130.7         | 217.1         | 317.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 19  | 24     | 741.2  | 0.413371   | 134.3         | 223.2         | 326.6         |                    | -                          | -                          | 75.36                      |
| 2020 | 6     | 20  | 1      | 693.5  | 0.433106   | 140.8         | 233.9         | 342.2         |                    | -                          | 30.38                      | 138.65                     |
| 2020 | 6     | 20  | 2      | 662.2  | 0.515037   | 167.4         | 278.1         | 406.9         |                    | -                          | 105.92                     | 234.68                     |
| 2020 | 6     | 20  | 3      | 657.4  | 0.628922   | 204.4         | 339.6         | 496.8         |                    | 37.00                      | 172.22                     | 329.45                     |
| 2020 | 6     | 20  | 4      | 644    | 0.622582   | 202.3         | 336.2         | 491.8         |                    | 48.34                      | 182.19                     | 337.84                     |
| 2020 | 6     | 20  | 5      | 645.5  | 0.472855   | 153.7         | 255.3         | 373.6         |                    | -                          | 99.84                      | 218.06                     |
| 2020 | 6     | 20  | 6      | 671.1  | 0.33223    | 108.0         | 179.4         | 262.5         |                    | -                          | -                          | 81.36                      |
| 2020 | 6     | 20  | 7      | 786.4  | 0.398856   | 129.6         | 215.4         | 315.1         |                    | -                          | -                          | 18.70                      |
| 2020 | 6     | 20  | 8      | 845.1  | 0.410891   | 133.5         | 221.9         | 324.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 9      | 921.8  | 0.353838   | 115.0         | 191.1         | 279.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 10     | 938.6  | 0.377084   | 122.6         | 203.6         | 297.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 11     | 906.1  | 0.396639   | 128.9         | 214.2         | 313.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 12     | 939.8  | 0.439469   | 142.8         | 237.3         | 347.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 13     | 927.9  | 0.495708   | 161.1         | 267.7         | 391.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 14     | 897.6  | 0.504756   | 164.0         | 272.6         | 398.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 15     | 880.2  | 0.477616   | 155.2         | 257.9         | 377.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 16     | 927.3  | 0.445755   | 144.9         | 240.7         | 352.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 17     | 950.9  | 0.386015   | 125.5         | 208.4         | 305.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 18     | 900.7  | 0.455461   | 148.0         | 245.9         | 359.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 19     | 918.7  | 0.376142   | 122.2         | 203.1         | 297.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 20     | 898.2  | 0.434715   | 141.3         | 234.7         | 343.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 21     | 889    | 0.416023   | 135.2         | 224.7         | 328.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 22     | 894.2  | 0.342373   | 111.3         | 184.9         | 270.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 23     | 863.4  | 0.249355   | 81.0          | 134.7         | 197.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 20  | 24     | 776.2  | 0.232875   | 75.7          | 125.8         | 184.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 21  | 1      | 720.6  | 0.197213   | 64.1          | 106.5         | 155.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 21  | 2      | 682.3  | 0.203483   | 66.1          | 109.9         | 160.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 21  | 3      | 677.9  | 0.238274   | 77.4          | 128.7         | 188.2         |                    | -                          | -                          | 0.34                       |
| 2020 | 6     | 21  | 4      | 642.8  | 0.224771   | 73.1          | 121.4         | 177.6         |                    | -                          | -                          | 24.77                      |
| 2020 | 6     | 21  | 5      | 611.7  | 0.234464   | 76.2          | 126.6         | 185.2         |                    | -                          | 4.91                       | 63.53                      |
| 2020 | 6     | 21  | 6      | 627.4  | 0.205391   | 66.8          | 110.9         | 162.3         |                    | -                          | -                          | 24.86                      |
| 2020 | 6     | 21  | 7      | 721.6  | 0.194735   | 63.3          | 105.2         | 153.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 21  | 8      | 800.2  | 0.202836   | 65.9          | 109.5         | 160.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 21  | 9      | 928.9  | 0.165214   | 53.7          | 89.2          | 130.5         |                    | -                          | -                          | -                          |
| 2020 | 6     | 21  | 10     | 938    | 0.192395   | 62.5          | 103.9         | 152.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 21  | 11     | 974.5  | 0.228667   | 74.3          | 123.5         | 180.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 21  | 12     | 901.5  | 0.225465   | 73.3          | 121.8         | 178.1         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 6     | 21  | 13     | 863.1  | 0.256397      | 83.3             | 138.5            | 202.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 21  | 14     | 891.9  | 0.300248      | 97.6             | 162.1            | 237.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 21  | 15     | 910.8  | 0.338638      | 110.1            | 182.9            | 267.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 21  | 16     | 937    | 0.325634      | 105.8            | 175.8            | 257.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 21  | 17     | 923.7  | 0.325047      | 105.6            | 175.5            | 256.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 21  | 18     | 908.7  | 0.380709      | 123.7            | 205.6            | 300.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 21  | 19     | 941.6  | 0.451333      | 146.7            | 243.7            | 356.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 21  | 20     | 918.4  | 0.379526      | 123.3            | 204.9            | 299.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 21  | 21     | 927.8  | 0.262885      | 85.4             | 142.0            | 207.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 21  | 22     | 862.1  | 0.313082      | 101.8            | 169.1            | 247.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 21  | 23     | 780.9  | 0.299683      | 97.4             | 161.8            | 236.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 21  | 24     | 718.2  | 0.300266      | 97.6             | 162.1            | 237.2            |                       | -                             | -                             | 9.01                          |
| 2020 | 6     | 22  | 1      | 692.9  | 0.303291      | 98.6             | 163.8            | 239.6            |                       | -                             | -                             | 36.70                         |
| 2020 | 6     | 22  | 2      | 679.5  | 0.334201      | 108.6            | 180.5            | 264.0            |                       | -                             | -                             | 74.52                         |
| 2020 | 6     | 22  | 3      | 663.3  | 0.345916      | 112.4            | 186.8            | 273.3            |                       | -                             | 13.49                         | 99.97                         |
| 2020 | 6     | 22  | 4      | 670.4  | 0.436661      | 141.9            | 235.8            | 345.0            |                       | -                             | 55.40                         | 164.56                        |
| 2020 | 6     | 22  | 5      | 705.1  | 0.4595        | 149.3            | 248.1            | 363.0            |                       | -                             | 33.03                         | 147.90                        |
| 2020 | 6     | 22  | 6      | 782.3  | 0.461648      | 150.0            | 249.3            | 364.7            |                       | -                             | -                             | 72.40                         |
| 2020 | 6     | 22  | 7      | 933.5  | 0.482281      | 156.7            | 260.4            | 381.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 8      | 1025.6 | 0.427509      | 138.9            | 230.9            | 337.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 9      | 1085.5 | 0.381227      | 123.9            | 205.9            | 301.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 10     | 1104.9 | 0.416702      | 135.4            | 225.0            | 329.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 11     | 1101.7 | 0.426756      | 138.7            | 230.4            | 337.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 12     | 1108   | 0.439009      | 142.7            | 237.1            | 346.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 13     | 1127.1 | 0.442735      | 143.9            | 239.1            | 349.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 14     | 1124.2 | 0.404853      | 131.6            | 218.6            | 319.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 15     | 1097.2 | 0.391952      | 127.4            | 211.7            | 309.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 16     | 1138   | 0.427086      | 138.8            | 230.6            | 337.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 17     | 1108.4 | 0.378992      | 123.2            | 204.7            | 299.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 18     | 1024.5 | 0.337117      | 109.6            | 182.0            | 266.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 19     | 1038.2 | 0.281618      | 91.5             | 152.1            | 222.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 20     | 1026   | 0.246274      | 80.0             | 133.0            | 194.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 21     | 1029.6 | 0.263161      | 85.5             | 142.1            | 207.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 22     | 952.8  | 0.227319      | 73.9             | 122.8            | 179.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 23     | 866    | 0.186547      | 60.6             | 100.7            | 147.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 22  | 24     | 767.9  | 0.144431      | 46.9             | 78.0             | 114.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 1      | 734.8  | 0.15942       | 51.8             | 86.1             | 125.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 2      | 699.8  | 0.1599        | 52.0             | 86.3             | 126.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 3      | 688.2  | 0.129397      | 42.1             | 69.9             | 102.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 4      | 692.8  | 0.101877      | 33.1             | 55.0             | 80.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 5      | 747.2  | 0.115773      | 37.6             | 62.5             | 91.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 6      | 844.1  | 0.123657      | 40.2             | 66.8             | 97.7             |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 7      | 981    | 0.083773      | 27.2             | 45.2             | 66.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 8      | 1048.5 | 0.097561      | 31.7             | 52.7             | 77.1             |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 9      | 1093.8 | 0.124762      | 40.5             | 67.4             | 98.6             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 6     | 23  | 10     | 1129   | 0.116245      | 37.8             | 62.8             | 91.8             |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 11     | 1090.5 | 0.114907      | 37.3             | 62.0             | 90.8             |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 12     | 1100.7 | 0.132797      | 43.2             | 71.7             | 104.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 13     | 1076   | 0.162203      | 52.7             | 87.6             | 128.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 14     | 1082.3 | 0.142782      | 46.4             | 77.1             | 112.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 15     | 1072.6 | 0.162934      | 53.0             | 88.0             | 128.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 16     | 1115.8 | 0.128633      | 41.8             | 69.5             | 101.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 17     | 1076.7 | 0.120819      | 39.3             | 65.2             | 95.4             |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 18     | 1039.2 | 0.115415      | 37.5             | 62.3             | 91.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 19     | 980.3  | 0.115         | 37.4             | 62.1             | 90.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 20     | 956.9  | 0.105824      | 34.4             | 57.1             | 83.6             |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 21     | 972.9  | 0.106278      | 34.5             | 57.4             | 84.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 22     | 955.8  | 0.09237       | 30.0             | 49.9             | 73.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 23     | 865.5  | 0.076465      | 24.9             | 41.3             | 60.4             |                       | -                             | -                             | -                             |
| 2020 | 6     | 23  | 24     | 761.6  | 0.095937      | 31.2             | 51.8             | 75.8             |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 1      | 748.6  | 0.087774      | 28.5             | 47.4             | 69.3             |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 2      | 729.4  | 0.062647      | 20.4             | 33.8             | 49.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 3      | 715.4  | 0.056279      | 18.3             | 30.4             | 44.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 4      | 710.2  | 0.093671      | 30.4             | 50.6             | 74.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 5      | 736.4  | 0.074921      | 24.3             | 40.5             | 59.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 6      | 839.1  | 0.096822      | 31.5             | 52.3             | 76.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 7      | 959.8  | 0.159954      | 52.0             | 86.4             | 126.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 8      | 1032.7 | 0.101562      | 33.0             | 54.8             | 80.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 9      | 1050.2 | 0.101224      | 32.9             | 54.7             | 80.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 10     | 1083.5 | 0.109064      | 35.4             | 58.9             | 86.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 11     | 1070.7 | 0.159421      | 51.8             | 86.1             | 125.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 12     | 1131.9 | 0.217448      | 70.7             | 117.4            | 171.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 13     | 1113.6 | 0.294374      | 95.7             | 159.0            | 232.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 14     | 1130.2 | 0.295396      | 96.0             | 159.5            | 233.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 15     | 1091   | 0.325877      | 105.9            | 176.0            | 257.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 16     | 1138   | 0.274056      | 89.1             | 148.0            | 216.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 17     | 1136.5 | 0.329071      | 106.9            | 177.7            | 260.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 18     | 1138.1 | 0.338861      | 110.1            | 183.0            | 267.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 19     | 1074   | 0.321578      | 104.5            | 173.7            | 254.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 20     | 1086.6 | 0.398129      | 129.4            | 215.0            | 314.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 21     | 1037.7 | 0.425431      | 138.3            | 229.7            | 336.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 22     | 997.8  | 0.489516      | 159.1            | 264.3            | 386.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 23     | 881.6  | 0.424889      | 138.1            | 229.4            | 335.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 24  | 24     | 755.9  | 0.490526      | 159.4            | 264.9            | 387.5            |                       | -                             | -                             | 121.62                        |
| 2020 | 6     | 25  | 1      | 719.3  | 0.459406      | 149.3            | 248.1            | 362.9            |                       | -                             | 18.78                         | 133.63                        |
| 2020 | 6     | 25  | 2      | 689.2  | 0.491637      | 159.8            | 265.5            | 388.4            |                       | -                             | 66.28                         | 189.19                        |
| 2020 | 6     | 25  | 3      | 683.4  | 0.417898      | 135.8            | 225.7            | 330.1            |                       | -                             | 32.26                         | 136.74                        |
| 2020 | 6     | 25  | 4      | 694.2  | 0.473364      | 153.8            | 255.6            | 374.0            |                       | -                             | 51.42                         | 169.76                        |
| 2020 | 6     | 25  | 5      | 714.2  | 0.531209      | 172.6            | 286.9            | 419.7            |                       | -                             | 62.65                         | 195.45                        |
| 2020 | 6     | 25  | 6      | 771.1  | 0.53775       | 174.8            | 290.4            | 424.8            |                       | -                             | 9.28                          | 143.72                        |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 6     | 25  | 7      | 910.6  | 0.642956      | 209.0            | 347.2            | 507.9            |                       | -                             | -                             | 87.34                         |
| 2020 | 6     | 25  | 8      | 1034   | 0.644552      | 209.5            | 348.1            | 509.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 9      | 1069.6 | 0.633991      | 206.0            | 342.4            | 500.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 10     | 1132.2 | 0.631444      | 205.2            | 341.0            | 498.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 11     | 1143   | 0.701204      | 227.9            | 378.7            | 554.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 12     | 1119.4 | 0.710785      | 231.0            | 383.8            | 561.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 13     | 1115.7 | 0.661163      | 214.9            | 357.0            | 522.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 14     | 1127.7 | 0.648724      | 210.8            | 350.3            | 512.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 15     | 1116.3 | 0.656836      | 213.5            | 354.7            | 518.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 16     | 1165.3 | 0.592017      | 192.4            | 319.7            | 467.7            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 17     | 1128.1 | 0.504972      | 164.1            | 272.7            | 398.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 18     | 1100.4 | 0.554584      | 180.2            | 299.5            | 438.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 19     | 1053.9 | 0.520416      | 169.1            | 281.0            | 411.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 20     | 989.9  | 0.55769       | 181.2            | 301.2            | 440.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 21     | 1044.1 | 0.586226      | 190.5            | 316.6            | 463.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 22     | 988.3  | 0.530921      | 172.5            | 286.7            | 419.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 23     | 872.4  | 0.478823      | 155.6            | 258.6            | 378.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 25  | 24     | 790.7  | 0.525727      | 170.9            | 283.9            | 415.3            |                       | -                             | -                             | 114.62                        |
| 2020 | 6     | 26  | 1      | 743.9  | 0.423282      | 137.6            | 228.6            | 334.4            |                       | -                             | -                             | 80.49                         |
| 2020 | 6     | 26  | 2      | 730    | 0.409974      | 133.2            | 221.4            | 323.9            |                       | -                             | -                             | 83.88                         |
| 2020 | 6     | 26  | 3      | 714.5  | 0.350713      | 114.0            | 189.4            | 277.1            |                       | -                             | -                             | 52.56                         |
| 2020 | 6     | 26  | 4      | 717.1  | 0.305701      | 99.4             | 165.1            | 241.5            |                       | -                             | -                             | 14.40                         |
| 2020 | 6     | 26  | 5      | 751    | 0.219683      | 71.4             | 118.6            | 173.5            |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 6      | 832    | 0.197439      | 64.2             | 106.6            | 156.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 7      | 965.4  | 0.132126      | 42.9             | 71.3             | 104.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 8      | 1091   | 0.095189      | 30.9             | 51.4             | 75.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 9      | 1134.3 | 0.060204      | 19.6             | 32.5             | 47.6             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 10     | 1139.7 | 0.125355      | 40.7             | 67.7             | 99.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 11     | 1121.1 | 0.118981      | 38.7             | 64.2             | 94.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 12     | 1128.5 | 0.080872      | 26.3             | 43.7             | 63.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 13     | 1083   | 0.066155      | 21.5             | 35.7             | 52.3             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 14     | 1071.6 | 0.0504        | 16.4             | 27.2             | 39.8             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 15     | 1063.5 | 0.0357        | 11.6             | 19.3             | 28.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 16     | 1083.6 | 0.04888       | 15.9             | 26.4             | 38.6             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 17     | 1045.3 | 0.068867      | 22.4             | 37.2             | 54.4             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 18     | 958.8  | 0.06031       | 19.6             | 32.6             | 47.6             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 19     | 905.4  | 0.021462      | 7.0              | 11.6             | 17.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 20     | 912    | 0.054296      | 17.6             | 29.3             | 42.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 21     | 886.9  | 0.068703      | 22.3             | 37.1             | 54.3             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 22     | 920.4  | 0.041605      | 13.5             | 22.5             | 32.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 23     | 898.1  | 0.102066      | 33.2             | 55.1             | 80.6             |                       | -                             | -                             | -                             |
| 2020 | 6     | 26  | 24     | 802.3  | 0.148884      | 48.4             | 80.4             | 117.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 1      | 771.8  | 0.17818       | 57.9             | 96.2             | 140.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 2      | 732.3  | 0.162216      | 52.7             | 87.6             | 128.2            |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 3      | 712.9  | 0.164971      | 53.6             | 89.1             | 130.3            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load  | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|-------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 6     | 27  | 4      | 723   | 0.15938       | 51.8             | 86.1             | 125.9            |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 5      | 715.1 | 0.143545      | 46.7             | 77.5             | 113.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 6      | 728.2 | 0.092209      | 30.0             | 49.8             | 72.8             |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 7      | 774.8 | 0.118096      | 38.4             | 63.8             | 93.3             |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 8      | 837   | 0.140201      | 45.6             | 75.7             | 110.8            |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 9      | 888   | 0.147279      | 47.9             | 79.5             | 116.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 10     | 950.7 | 0.075364      | 24.5             | 40.7             | 59.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 11     | 953.2 | 0.082698      | 26.9             | 44.7             | 65.3             |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 12     | 902.6 | 0.051003      | 16.6             | 27.5             | 40.3             |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 13     | 906   | 0.037077      | 12.1             | 20.0             | 29.3             |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 14     | 890.3 | 0.033762      | 11.0             | 18.2             | 26.7             |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 15     | 914.6 | 0.047081      | 15.3             | 25.4             | 37.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 16     | 916.8 | 0.137498      | 44.7             | 74.2             | 108.6            |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 17     | 948.8 | 0.100603      | 32.7             | 54.3             | 79.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 18     | 908.4 | 0.105132      | 34.2             | 56.8             | 83.1             |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 19     | 883.3 | 0.101118      | 32.9             | 54.6             | 79.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 20     | 854.7 | 0.108247      | 35.2             | 58.5             | 85.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 21     | 846   | 0.117525      | 38.2             | 63.5             | 92.8             |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 22     | 878.9 | 0.151988      | 49.4             | 82.1             | 120.1            |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 23     | 842.7 | 0.127869      | 41.6             | 69.0             | 101.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 27  | 24     | 729.6 | 0.101543      | 33.0             | 54.8             | 80.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 1      | 717.2 | 0.098039      | 31.9             | 52.9             | 77.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 2      | 673.7 | 0.186135      | 60.5             | 100.5            | 147.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 3      | 662   | 0.139608      | 45.4             | 75.4             | 110.3            |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 4      | 672.3 | 0.142252      | 46.2             | 76.8             | 112.4            |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 5      | 642.4 | 0.14943       | 48.6             | 80.7             | 118.0            |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 6      | 673.7 | 0.101973      | 33.1             | 55.1             | 80.6             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 7      | 731.7 | 0.04681       | 15.2             | 25.3             | 37.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 8      | 826   | 0.040493      | 13.2             | 21.9             | 32.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 9      | 867.1 | 0.02602       | 8.5              | 14.1             | 20.6             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 10     | 930.2 | 0.026657      | 8.7              | 14.4             | 21.1             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 11     | 916.5 | 0.039962      | 13.0             | 21.6             | 31.6             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 12     | 887.8 | 0.042048      | 13.7             | 22.7             | 33.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 13     | 943.1 | 0.051247      | 16.7             | 27.7             | 40.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 14     | 937.3 | 0.050896      | 16.5             | 27.5             | 40.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 15     | 909.4 | 0.039351      | 12.8             | 21.2             | 31.1             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 16     | 912.7 | 0.020907      | 6.8              | 11.3             | 16.5             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 17     | 966   | 0.014118      | 4.6              | 7.6              | 11.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 18     | 932.2 | 0.016507      | 5.4              | 8.9              | 13.0             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 19     | 878.4 | 0.057232      | 18.6             | 30.9             | 45.2             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 20     | 901.4 | 0.064628      | 21.0             | 34.9             | 51.1             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 21     | 923.2 | 0.10488       | 34.1             | 56.6             | 82.9             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 22     | 899.8 | 0.069751      | 22.7             | 37.7             | 55.1             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 23     | 820.8 | 0.097981      | 31.8             | 52.9             | 77.4             |                       | -                             | -                             | -                             |
| 2020 | 6     | 28  | 24     | 735.9 | 0.085059      | 27.6             | 45.9             | 67.2             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 6     | 29  | 1      | 724.8  | 0.077221   | 25.1          | 41.7          | 61.0          |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 2      | 674.4  | 0.097924   | 31.8          | 52.9          | 77.4          |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 3      | 673.4  | 0.119028   | 38.7          | 64.3          | 94.0          |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 4      | 693.5  | 0.140605   | 45.7          | 75.9          | 111.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 5      | 722.6  | 0.206183   | 67.0          | 111.3         | 162.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 6      | 780.5  | 0.254525   | 82.7          | 137.4         | 201.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 7      | 917.3  | 0.152238   | 49.5          | 82.2          | 120.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 8      | 1017.2 | 0.111419   | 36.2          | 60.2          | 88.0          |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 9      | 1074.9 | 0.105587   | 34.3          | 57.0          | 83.4          |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 10     | 1133.4 | 0.124092   | 40.3          | 67.0          | 98.0          |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 11     | 1137.9 | 0.152734   | 49.6          | 82.5          | 120.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 12     | 1170.4 | 0.193909   | 63.0          | 104.7         | 153.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 13     | 1148   | 0.29348    | 95.4          | 158.5         | 231.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 14     | 1124.5 | 0.285768   | 92.9          | 154.3         | 225.8         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 15     | 1127.2 | 0.334214   | 108.6         | 180.5         | 264.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 16     | 1131.5 | 0.331715   | 107.8         | 179.1         | 262.1         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 17     | 1103.3 | 0.297981   | 96.8          | 160.9         | 235.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 18     | 1025.2 | 0.355251   | 115.5         | 191.8         | 280.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 19     | 1027.6 | 0.383138   | 124.5         | 206.9         | 302.7         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 20     | 1058.5 | 0.372196   | 121.0         | 201.0         | 294.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 21     | 1019.7 | 0.35466    | 115.3         | 191.5         | 280.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 22     | 966.1  | 0.314724   | 102.3         | 170.0         | 248.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 23     | 873.7  | 0.349199   | 113.5         | 188.6         | 275.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 29  | 24     | 753.7  | 0.387297   | 125.9         | 209.1         | 306.0         |                    | -                          | -                          | 42.26                      |
| 2020 | 6     | 30  | 1      | 702.7  | 0.292502   | 95.1          | 158.0         | 231.1         |                    | -                          | -                          | 18.38                      |
| 2020 | 6     | 30  | 2      | 696.9  | 0.244242   | 79.4          | 131.9         | 193.0         |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 3      | 698.3  | 0.15137    | 49.2          | 81.7          | 119.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 4      | 697.5  | 0.157524   | 51.2          | 85.1          | 124.4         |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 5      | 722.8  | 0.120709   | 39.2          | 65.2          | 95.4          |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 6      | 801.2  | 0.098706   | 32.1          | 53.3          | 78.0          |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 7      | 931.3  | 0.085238   | 27.7          | 46.0          | 67.3          |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 8      | 1093.7 | 0.051153   | 16.6          | 27.6          | 40.4          |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 9      | 1122.8 | 0.04555    | 14.8          | 24.6          | 36.0          |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 10     | 1117.2 | 0.045259   | 14.7          | 24.4          | 35.8          |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 11     | 1111.7 | 0.055097   | 17.9          | 29.8          | 43.5          |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 12     | 1100.4 | 0.078482   | 25.5          | 42.4          | 62.0          |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 13     | 1110.1 | 0.103839   | 33.7          | 56.1          | 82.0          |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 14     | 1063.1 | 0.145801   | 47.4          | 78.7          | 115.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 15     | 1026   | 0.119878   | 39.0          | 64.7          | 94.7          |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 16     | 1045.3 | 0.096912   | 31.5          | 52.3          | 76.6          |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 17     | 1090.5 | 0.126446   | 41.1          | 68.3          | 99.9          |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 18     | 1035.5 | 0.090894   | 29.5          | 49.1          | 71.8          |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 19     | 996.8  | 0.12693    | 41.3          | 68.5          | 100.3         |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 20     | 1009.5 | 0.180561   | 58.7          | 97.5          | 142.6         |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 21     | 977.1  | 0.202274   | 65.7          | 109.2         | 159.8         |                    | -                          | -                          | -                          |



| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 6     | 30  | 22     | 947.1  | 0.29268    | 95.1          | 158.0         | 231.2         |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 23     | 847.8  | 0.150559   | 48.9          | 81.3          | 118.9         |                    | -                          | -                          | -                          |
| 2020 | 6     | 30  | 24     | 780.6  | 0.108103   | 35.1          | 58.4          | 85.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 1      | 715.1  | 0.149523   | 48.6          | 80.7          | 118.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 2      | 698.1  | 0.119114   | 38.7          | 64.3          | 94.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 3      | 689.9  | 0.095778   | 31.1          | 51.7          | 75.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 4      | 692.9  | 0.084356   | 27.4          | 45.6          | 66.6          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 5      | 710.8  | 0.067849   | 22.1          | 36.6          | 53.6          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 6      | 799.3  | 0.075098   | 24.4          | 40.6          | 59.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 7      | 923    | 0.081259   | 26.4          | 43.9          | 64.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 8      | 1001.4 | 0.052394   | 17.0          | 28.3          | 41.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 9      | 1042.4 | 0.046037   | 15.0          | 24.9          | 36.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 10     | 1058.5 | 0.06149    | 20.0          | 33.2          | 48.6          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 11     | 1122.2 | 0.043195   | 14.0          | 23.3          | 34.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 12     | 1132.6 | 0.027134   | 8.8           | 14.7          | 21.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 13     | 1096.1 | 0.020548   | 6.7           | 11.1          | 16.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 14     | 1073.2 | 0.024666   | 8.0           | 13.3          | 19.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 15     | 1048.2 | 0.040286   | 13.1          | 21.8          | 31.8          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 16     | 1066.7 | 0.048464   | 15.8          | 26.2          | 38.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 17     | 1059.2 | 0.05399    | 17.5          | 29.2          | 42.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 18     | 1028.3 | 0.037329   | 12.1          | 20.2          | 29.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 19     | 993.1  | 0.050129   | 16.3          | 27.1          | 39.6          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 20     | 934    | 0.041978   | 13.6          | 22.7          | 33.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 21     | 961.4  | 0.045619   | 14.8          | 24.6          | 36.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 22     | 930.8  | 0.038181   | 12.4          | 20.6          | 30.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 23     | 880.3  | 0.04549    | 14.8          | 24.6          | 35.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 1   | 24     | 786.8  | 0.044879   | 14.6          | 24.2          | 35.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 1      | 734.8  | 0.05617    | 18.3          | 30.3          | 44.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 2      | 696.7  | 0.073715   | 24.0          | 39.8          | 58.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 3      | 675.9  | 0.067008   | 21.8          | 36.2          | 52.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 4      | 695.5  | 0.042501   | 13.8          | 23.0          | 33.6          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 5      | 685.8  | 0.027388   | 8.9           | 14.8          | 21.6          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 6      | 695    | 0.023299   | 7.6           | 12.6          | 18.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 7      | 734.9  | 0.022207   | 7.2           | 12.0          | 17.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 8      | 835.9  | 0.025619   | 8.3           | 13.8          | 20.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 9      | 871.1  | 0.024926   | 8.1           | 13.5          | 19.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 10     | 889.3  | 0.014684   | 4.8           | 7.9           | 11.6          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 11     | 858.9  | 0.007781   | 2.5           | 4.2           | 6.1           |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 12     | 886.2  | 0.01777    | 5.8           | 9.6           | 14.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 13     | 869.7  | 0.023364   | 7.6           | 12.6          | 18.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 14     | 845.1  | 0.02463    | 8.0           | 13.3          | 19.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 15     | 831.2  | 0.022145   | 7.2           | 12.0          | 17.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 16     | 823.6  | 0.01622    | 5.3           | 8.8           | 12.8          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 17     | 833.3  | 0.035574   | 11.6          | 19.2          | 28.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 2   | 18     | 845    | 0.053965   | 17.5          | 29.1          | 42.6          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 7     | 2   | 19     | 857.3  | 0.050829      | 16.5             | 27.4             | 40.2             |                       | -                             | -                             | -                             |
| 2020 | 7     | 2   | 20     | 822.6  | 0.14183       | 46.1             | 76.6             | 112.0            |                       | -                             | -                             | -                             |
| 2020 | 7     | 2   | 21     | 806    | 0.317192      | 103.1            | 171.3            | 250.6            |                       | -                             | -                             | -                             |
| 2020 | 7     | 2   | 22     | 790.5  | 0.283094      | 92.0             | 152.9            | 223.6            |                       | -                             | -                             | -                             |
| 2020 | 7     | 2   | 23     | 752.2  | 0.292698      | 95.1             | 158.1            | 231.2            |                       | -                             | -                             | -                             |
| 2020 | 7     | 2   | 24     | 692.7  | 0.262017      | 85.2             | 141.5            | 207.0            |                       | -                             | -                             | 4.29                          |
| 2020 | 7     | 3   | 1      | 672.2  | 0.257509      | 83.7             | 139.1            | 203.4            |                       | -                             | -                             | 21.23                         |
| 2020 | 7     | 3   | 2      | 643.4  | 0.282897      | 91.9             | 152.8            | 223.5            |                       | -                             | -                             | 70.09                         |
| 2020 | 7     | 3   | 3      | 647.4  | 0.298353      | 97.0             | 161.1            | 235.7            |                       | -                             | 3.71                          | 78.30                         |
| 2020 | 7     | 3   | 4      | 647.5  | 0.328443      | 106.7            | 177.4            | 259.5            |                       | -                             | 19.86                         | 101.97                        |
| 2020 | 7     | 3   | 5      | 666.4  | 0.34031       | 110.6            | 183.8            | 268.8            |                       | -                             | 7.37                          | 92.44                         |
| 2020 | 7     | 3   | 6      | 722.8  | 0.327436      | 106.4            | 176.8            | 258.7            |                       | -                             | -                             | 25.87                         |
| 2020 | 7     | 3   | 7      | 828.6  | 0.244508      | 79.5             | 132.0            | 193.2            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 8      | 950.3  | 0.224803      | 73.1             | 121.4            | 177.6            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 9      | 997.5  | 0.222462      | 72.3             | 120.1            | 175.7            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 10     | 1000   | 0.214554      | 69.7             | 115.9            | 169.5            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 11     | 1007.1 | 0.272509      | 88.6             | 147.2            | 215.3            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 12     | 1010.6 | 0.399726      | 129.9            | 215.9            | 315.8            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 13     | 981.3  | 0.373333      | 121.3            | 201.6            | 294.9            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 14     | 964.9  | 0.425047      | 138.1            | 229.5            | 335.8            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 15     | 995.5  | 0.355951      | 115.7            | 192.2            | 281.2            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 16     | 985    | 0.436748      | 141.9            | 235.8            | 345.0            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 17     | 950.2  | 0.443242      | 144.1            | 239.4            | 350.2            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 18     | 890.6  | 0.389761      | 126.7            | 210.5            | 307.9            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 19     | 895.4  | 0.431099      | 140.1            | 232.8            | 340.6            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 20     | 844.3  | 0.461067      | 149.8            | 249.0            | 364.2            |                       | -                             | -                             | 9.94                          |
| 2020 | 7     | 3   | 21     | 864.9  | 0.481394      | 156.5            | 260.0            | 380.3            |                       | -                             | -                             | 5.40                          |
| 2020 | 7     | 3   | 22     | 819.7  | 0.399715      | 129.9            | 215.8            | 315.8            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 23     | 805.3  | 0.398986      | 129.7            | 215.5            | 315.2            |                       | -                             | -                             | -                             |
| 2020 | 7     | 3   | 24     | 714.2  | 0.419696      | 136.4            | 226.6            | 331.6            |                       | -                             | 2.44                          | 107.36                        |
| 2020 | 7     | 4   | 1      | 675.2  | 0.425106      | 138.2            | 229.6            | 335.8            |                       | -                             | 44.36                         | 150.63                        |
| 2020 | 7     | 4   | 2      | 654.1  | 0.492403      | 160.0            | 265.9            | 389.0            |                       | -                             | 101.80                        | 224.90                        |
| 2020 | 7     | 4   | 3      | 641.6  | 0.364608      | 118.5            | 196.9            | 288.0            |                       | -                             | 45.29                         | 136.44                        |
| 2020 | 7     | 4   | 4      | 658.2  | 0.502846      | 163.4            | 271.5            | 397.2            |                       | -                             | 103.34                        | 229.05                        |
| 2020 | 7     | 4   | 5      | 638.2  | 0.458253      | 148.9            | 247.5            | 362.0            |                       | 0.73                          | 99.26                         | 213.82                        |
| 2020 | 7     | 4   | 6      | 660.2  | 0.496706      | 161.4            | 268.2            | 392.4            |                       | -                             | 98.02                         | 222.20                        |
| 2020 | 7     | 4   | 7      | 719.6  | 0.474411      | 154.2            | 256.2            | 374.8            |                       | -                             | 26.58                         | 145.18                        |
| 2020 | 7     | 4   | 8      | 790.4  | 0.578791      | 188.1            | 312.5            | 457.2            |                       | -                             | 12.15                         | 156.84                        |
| 2020 | 7     | 4   | 9      | 855.1  | 0.601327      | 195.4            | 324.7            | 475.0            |                       | -                             | -                             | 109.95                        |
| 2020 | 7     | 4   | 10     | 905    | 0.601398      | 195.5            | 324.8            | 475.1            |                       | -                             | -                             | 60.10                         |
| 2020 | 7     | 4   | 11     | 918.8  | 0.420663      | 136.7            | 227.2            | 332.3            |                       | -                             | -                             | -                             |
| 2020 | 7     | 4   | 12     | 883.6  | 0.528424      | 171.7            | 285.3            | 417.5            |                       | -                             | -                             | 23.86                         |
| 2020 | 7     | 4   | 13     | 891.3  | 0.58209       | 189.2            | 314.3            | 459.9            |                       | -                             | -                             | 58.55                         |
| 2020 | 7     | 4   | 14     | 845.2  | 0.628143      | 204.1            | 339.2            | 496.2            |                       | -                             | -                             | 141.03                        |
| 2020 | 7     | 4   | 15     | 882.1  | 0.615964      | 200.2            | 332.6            | 486.6            |                       | -                             | -                             | 94.51                         |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 7     | 4   | 16     | 857.2  | 0.611739   | 198.8         | 330.3         | 483.3         |                    | -                          | -                          | 116.07                     |
| 2020 | 7     | 4   | 17     | 909.8  | 0.552899   | 179.7         | 298.6         | 436.8         |                    | -                          | -                          | 16.99                      |
| 2020 | 7     | 4   | 18     | 855.6  | 0.452446   | 147.0         | 244.3         | 357.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 4   | 19     | 836    | 0.471114   | 153.1         | 254.4         | 372.2         |                    | -                          | -                          | 26.20                      |
| 2020 | 7     | 4   | 20     | 833.8  | 0.46071    | 149.7         | 248.8         | 364.0         |                    | -                          | -                          | 20.16                      |
| 2020 | 7     | 4   | 21     | 831.8  | 0.433122   | 140.8         | 233.9         | 342.2         |                    | -                          | -                          | 0.37                       |
| 2020 | 7     | 4   | 22     | 852.2  | 0.442601   | 143.8         | 239.0         | 349.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 4   | 23     | 765.3  | 0.396702   | 128.9         | 214.2         | 313.4         |                    | -                          | -                          | 38.09                      |
| 2020 | 7     | 4   | 24     | 691    | 0.377987   | 122.8         | 204.1         | 298.6         |                    | -                          | 3.11                       | 97.61                      |
| 2020 | 7     | 5   | 1      | 680.8  | 0.369101   | 120.0         | 199.3         | 291.6         |                    | -                          | 8.51                       | 100.79                     |
| 2020 | 7     | 5   | 2      | 646.7  | 0.237507   | 77.2          | 128.3         | 187.6         |                    | -                          | -                          | 30.93                      |
| 2020 | 7     | 5   | 3      | 641.6  | 0.157183   | 51.1          | 84.9          | 124.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 4      | 647.4  | 0.155067   | 50.4          | 83.7          | 122.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 5      | 619.3  | 0.14206    | 46.2          | 76.7          | 112.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 6      | 649.3  | 0.074931   | 24.4          | 40.5          | 59.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 7      | 705.7  | 0.060458   | 19.6          | 32.6          | 47.8          |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 8      | 794    | 0.097426   | 31.7          | 52.6          | 77.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 9      | 841.9  | 0.076105   | 24.7          | 41.1          | 60.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 10     | 887.9  | 0.086574   | 28.1          | 46.7          | 68.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 11     | 886.1  | 0.061304   | 19.9          | 33.1          | 48.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 12     | 867.3  | 0.040817   | 13.3          | 22.0          | 32.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 13     | 891.5  | 0.033786   | 11.0          | 18.2          | 26.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 14     | 857.6  | 0.015378   | 5.0           | 8.3           | 12.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 15     | 862    | 0.05637    | 18.3          | 30.4          | 44.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 16     | 895    | 0.037797   | 12.3          | 20.4          | 29.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 17     | 853.1  | 0.061655   | 20.0          | 33.3          | 48.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 18     | 850.8  | 0.120827   | 39.3          | 65.2          | 95.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 19     | 848.1  | 0.157179   | 51.1          | 84.9          | 124.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 20     | 863.2  | 0.242477   | 78.8          | 130.9         | 191.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 21     | 869.6  | 0.301709   | 98.1          | 162.9         | 238.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 22     | 871.8  | 0.356632   | 115.9         | 192.6         | 281.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 23     | 811.8  | 0.337009   | 109.5         | 182.0         | 266.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 5   | 24     | 706.9  | 0.33111    | 107.6         | 178.8         | 261.6         |                    | -                          | -                          | 44.68                      |
| 2020 | 7     | 6   | 1      | 694.1  | 0.373339   | 121.3         | 201.6         | 294.9         |                    | -                          | -                          | 90.84                      |
| 2020 | 7     | 6   | 2      | 680.5  | 0.384771   | 125.1         | 207.8         | 304.0         |                    | -                          | 17.28                      | 113.47                     |
| 2020 | 7     | 6   | 3      | 686.2  | 0.280986   | 91.3          | 151.7         | 222.0         |                    | -                          | -                          | 25.78                      |
| 2020 | 7     | 6   | 4      | 688.7  | 0.259728   | 84.4          | 140.3         | 205.2         |                    | -                          | -                          | 6.49                       |
| 2020 | 7     | 6   | 5      | 700.9  | 0.188109   | 61.1          | 101.6         | 148.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 6      | 805.1  | 0.141138   | 45.9          | 76.2          | 111.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 7      | 931.6  | 0.143601   | 46.7          | 77.5          | 113.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 8      | 1005   | 0.112749   | 36.6          | 60.9          | 89.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 9      | 1069.9 | 0.083601   | 27.2          | 45.1          | 66.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 10     | 1075.7 | 0.133103   | 43.3          | 71.9          | 105.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 11     | 1080   | 0.131189   | 42.6          | 70.8          | 103.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 12     | 1078.8 | 0.155568   | 50.6          | 84.0          | 122.9         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 7     | 6   | 13     | 1107.5 | 0.280859   | 91.3          | 151.7         | 221.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 14     | 1088.8 | 0.327757   | 106.5         | 177.0         | 258.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 15     | 1064.1 | 0.32305    | 105.0         | 174.4         | 255.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 16     | 1092.5 | 0.365449   | 118.8         | 197.3         | 288.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 17     | 1088.7 | 0.422833   | 137.4         | 228.3         | 334.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 18     | 1077.4 | 0.343334   | 111.6         | 185.4         | 271.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 19     | 1007.3 | 0.305702   | 99.4          | 165.1         | 241.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 20     | 1021.1 | 0.387175   | 125.8         | 209.1         | 305.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 21     | 1010.8 | 0.407654   | 132.5         | 220.1         | 322.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 22     | 990.8  | 0.392615   | 127.6         | 212.0         | 310.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 23     | 882.6  | 0.496413   | 161.3         | 268.1         | 392.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 6   | 24     | 788.7  | 0.481755   | 156.6         | 260.1         | 380.6         |                    | -                          | -                          | 81.89                      |
| 2020 | 7     | 7   | 1      | 748.7  | 0.410778   | 133.5         | 221.8         | 324.5         |                    | -                          | -                          | 65.81                      |
| 2020 | 7     | 7   | 2      | 722.9  | 0.384323   | 124.9         | 207.5         | 303.6         |                    | -                          | -                          | 70.72                      |
| 2020 | 7     | 7   | 3      | 718.8  | 0.366912   | 119.2         | 198.1         | 289.9         |                    | -                          | -                          | 61.06                      |
| 2020 | 7     | 7   | 4      | 708.9  | 0.437005   | 142.0         | 236.0         | 345.2         |                    | -                          | 17.08                      | 126.33                     |
| 2020 | 7     | 7   | 5      | 736.5  | 0.545812   | 177.4         | 294.7         | 431.2         |                    | -                          | 48.24                      | 184.69                     |
| 2020 | 7     | 7   | 6      | 814.7  | 0.387412   | 125.9         | 209.2         | 306.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 7      | 925.7  | 0.294151   | 95.6          | 158.8         | 232.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 8      | 1042.6 | 0.234952   | 76.4          | 126.9         | 185.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 9      | 1067.7 | 0.226464   | 73.6          | 122.3         | 178.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 10     | 1101.6 | 0.294034   | 95.6          | 158.8         | 232.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 11     | 1137.7 | 0.389467   | 126.6         | 210.3         | 307.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 12     | 1135.6 | 0.327779   | 106.5         | 177.0         | 258.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 13     | 1108.1 | 0.193101   | 62.8          | 104.3         | 152.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 14     | 1110.6 | 0.14714    | 47.8          | 79.5          | 116.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 15     | 1118.8 | 0.138632   | 45.1          | 74.9          | 109.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 16     | 1106.8 | 0.127987   | 41.6          | 69.1          | 101.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 17     | 1137.6 | 0.048453   | 15.7          | 26.2          | 38.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 18     | 1064.4 | 0.0514     | 16.7          | 27.8          | 40.6          |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 19     | 1010.6 | 0.049853   | 16.2          | 26.9          | 39.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 20     | 1012.8 | 0.103221   | 33.5          | 55.7          | 81.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 21     | 1020.9 | 0.05985    | 19.5          | 32.3          | 47.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 22     | 966.9  | 0.067745   | 22.0          | 36.6          | 53.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 23     | 871.7  | 0.069236   | 22.5          | 37.4          | 54.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 7   | 24     | 765.1  | 0.054918   | 17.8          | 29.7          | 43.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 1      | 723.7  | 0.040042   | 13.0          | 21.6          | 31.6          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 2      | 707.8  | 0.01997    | 6.5           | 10.8          | 15.8          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 3      | 698.6  | 0.012559   | 4.1           | 6.8           | 9.9           |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 4      | 696.2  | 0.011684   | 3.8           | 6.3           | 9.2           |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 5      | 722.9  | 0.011865   | 3.9           | 6.4           | 9.4           |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 6      | 810.5  | 0.01525    | 5.0           | 8.2           | 12.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 7      | 948.1  | 0.009326   | 3.0           | 5.0           | 7.4           |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 8      | 1024.8 | 0.007166   | 2.3           | 3.9           | 5.7           |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 9      | 1088.5 | 0.009844   | 3.2           | 5.3           | 7.8           |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 7     | 8   | 10     | 1116.7 | 0.022147   | 7.2           | 12.0          | 17.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 11     | 1139.5 | 0.039951   | 13.0          | 21.6          | 31.6          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 12     | 1160.9 | 0.083648   | 27.2          | 45.2          | 66.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 13     | 1163.3 | 0.067923   | 22.1          | 36.7          | 53.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 14     | 1152.5 | 0.057891   | 18.8          | 31.3          | 45.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 15     | 1139.2 | 0.068477   | 22.3          | 37.0          | 54.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 16     | 1175.5 | 0.043479   | 14.1          | 23.5          | 34.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 17     | 1120.6 | 0.034291   | 11.1          | 18.5          | 27.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 18     | 1075.6 | 0.055736   | 18.1          | 30.1          | 44.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 19     | 1056.7 | 0.058661   | 19.1          | 31.7          | 46.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 20     | 998.1  | 0.113331   | 36.8          | 61.2          | 89.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 21     | 1014.3 | 0.115359   | 37.5          | 62.3          | 91.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 22     | 989.3  | 0.091631   | 29.8          | 49.5          | 72.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 23     | 916.6  | 0.114318   | 37.2          | 61.7          | 90.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 8   | 24     | 795.1  | 0.155069   | 50.4          | 83.7          | 122.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 1      | 769.7  | 0.223744   | 72.7          | 120.8         | 176.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 2      | 733.1  | 0.307695   | 100.0         | 166.2         | 243.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 3      | 726.3  | 0.375786   | 122.1         | 202.9         | 296.9         |                    | -                          | -                          | 60.57                      |
| 2020 | 7     | 9   | 4      | 733.3  | 0.391386   | 127.2         | 211.3         | 309.2         |                    | -                          | -                          | 65.89                      |
| 2020 | 7     | 9   | 5      | 739.8  | 0.402102   | 130.7         | 217.1         | 317.7         |                    | -                          | -                          | 67.86                      |
| 2020 | 7     | 9   | 6      | 813.8  | 0.393259   | 127.8         | 212.4         | 310.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 7      | 944.2  | 0.454282   | 147.6         | 245.3         | 358.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 8      | 1071.1 | 0.45098    | 146.6         | 243.5         | 356.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 9      | 1124.6 | 0.519442   | 168.8         | 280.5         | 410.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 10     | 1127.9 | 0.466178   | 151.5         | 251.7         | 368.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 11     | 1130   | 0.43756    | 142.2         | 236.3         | 345.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 12     | 1126.2 | 0.396521   | 128.9         | 214.1         | 313.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 13     | 1203.4 | 0.368703   | 119.8         | 199.1         | 291.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 14     | 1174.4 | 0.339778   | 110.4         | 183.5         | 268.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 15     | 1109.1 | 0.237639   | 77.2          | 128.3         | 187.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 16     | 1128.8 | 0.326022   | 106.0         | 176.1         | 257.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 17     | 1115.1 | 0.298807   | 97.1          | 161.4         | 236.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 18     | 1087.4 | 0.424142   | 137.8         | 229.0         | 335.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 19     | 1034.1 | 0.471492   | 153.2         | 254.6         | 372.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 20     | 1055   | 0.372564   | 121.1         | 201.2         | 294.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 21     | 1049.8 | 0.360402   | 117.1         | 194.6         | 284.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 22     | 1028   | 0.455061   | 147.9         | 245.7         | 359.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 9   | 23     | 930.2  | 0.663571   | 215.7         | 358.3         | 524.2         |                    | -                          | -                          | 84.02                      |
| 2020 | 7     | 9   | 24     | 816.8  | 0.607086   | 197.3         | 327.8         | 479.6         |                    | -                          | 1.03                       | 152.80                     |
| 2020 | 7     | 10  | 1      | 791.8  | 0.700545   | 227.7         | 378.3         | 553.4         |                    | -                          | 76.49                      | 251.63                     |
| 2020 | 7     | 10  | 2      | 744.7  | 0.669768   | 217.7         | 361.7         | 529.1         |                    | -                          | 106.97                     | 274.42                     |
| 2020 | 7     | 10  | 3      | 737.2  | 0.688929   | 223.9         | 372.0         | 544.3         |                    | -                          | 124.82                     | 297.05                     |
| 2020 | 7     | 10  | 4      | 727    | 0.629428   | 204.6         | 339.9         | 497.2         |                    | -                          | 102.89                     | 260.25                     |
| 2020 | 7     | 10  | 5      | 745.6  | 0.633665   | 205.9         | 342.2         | 500.6         |                    | -                          | 86.58                      | 245.00                     |
| 2020 | 7     | 10  | 6      | 802.8  | 0.635792   | 206.6         | 343.3         | 502.3         |                    | -                          | 30.53                      | 189.48                     |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 7     | 10  | 7      | 932.1  | 0.557729   | 181.3         | 301.2         | 440.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 8      | 1062.4 | 0.510203   | 165.8         | 275.5         | 403.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 9      | 1161.2 | 0.361645   | 117.5         | 195.3         | 285.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 10     | 1135.7 | 0.340311   | 110.6         | 183.8         | 268.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 11     | 1183.4 | 0.414559   | 134.7         | 223.9         | 327.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 12     | 1166.2 | 0.502775   | 163.4         | 271.5         | 397.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 13     | 1204.7 | 0.425662   | 138.3         | 229.9         | 336.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 14     | 1161.2 | 0.374385   | 121.7         | 202.2         | 295.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 15     | 1129.4 | 0.311072   | 101.1         | 168.0         | 245.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 16     | 1159.5 | 0.258093   | 83.9          | 139.4         | 203.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 17     | 1139.8 | 0.148285   | 48.2          | 80.1          | 117.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 18     | 1105.9 | 0.069024   | 22.4          | 37.3          | 54.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 19     | 1031.3 | 0.093472   | 30.4          | 50.5          | 73.8          |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 20     | 971.6  | 0.134709   | 43.8          | 72.7          | 106.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 21     | 985.2  | 0.16472    | 53.5          | 88.9          | 130.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 22     | 1022.7 | 0.292522   | 95.1          | 158.0         | 231.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 23     | 983.4  | 0.319116   | 103.7         | 172.3         | 252.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 10  | 24     | 866.5  | 0.37614    | 122.2         | 203.1         | 297.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 1      | 798.9  | 0.352586   | 114.6         | 190.4         | 278.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 2      | 788.3  | 0.355887   | 115.7         | 192.2         | 281.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 3      | 768.8  | 0.41186    | 133.9         | 222.4         | 325.4         |                    | -                          | -                          | 46.57                      |
| 2020 | 7     | 11  | 4      | 745.6  | 0.406262   | 132.0         | 219.4         | 320.9         |                    | -                          | -                          | 65.35                      |
| 2020 | 7     | 11  | 5      | 760.8  | 0.402775   | 130.9         | 217.5         | 318.2         |                    | -                          | -                          | 47.39                      |
| 2020 | 7     | 11  | 6      | 764.9  | 0.395216   | 128.4         | 213.4         | 312.2         |                    | -                          | -                          | 37.32                      |
| 2020 | 7     | 11  | 7      | 829.8  | 0.408266   | 132.7         | 220.5         | 322.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 8      | 930    | 0.352615   | 114.6         | 190.4         | 278.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 9      | 1000.2 | 0.291801   | 94.8          | 157.6         | 230.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 10     | 1042.1 | 0.30692    | 99.7          | 165.7         | 242.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 11     | 1037.6 | 0.393173   | 127.8         | 212.3         | 310.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 12     | 1045.1 | 0.457722   | 148.8         | 247.2         | 361.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 13     | 1010.6 | 0.405233   | 131.7         | 218.8         | 320.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 14     | 1022.2 | 0.447562   | 145.5         | 241.7         | 353.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 15     | 1003.7 | 0.459032   | 149.2         | 247.9         | 362.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 16     | 1001.8 | 0.429372   | 139.5         | 231.9         | 339.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 17     | 1058.5 | 0.453742   | 147.5         | 245.0         | 358.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 18     | 1088.9 | 0.480369   | 156.1         | 259.4         | 379.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 19     | 1017.3 | 0.430573   | 139.9         | 232.5         | 340.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 20     | 1029.4 | 0.643357   | 209.1         | 347.4         | 508.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 21     | 1021.5 | 0.662832   | 215.4         | 357.9         | 523.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 11  | 22     | 997.4  | 0.655066   | 212.9         | 353.7         | 517.5         |                    | -                          | -                          | 10.10                      |
| 2020 | 7     | 11  | 23     | 920.8  | 0.735514   | 239.0         | 397.2         | 581.1         |                    | -                          | -                          | 150.26                     |
| 2020 | 7     | 11  | 24     | 839.7  | 0.781981   | 254.1         | 422.3         | 617.8         |                    | -                          | 72.57                      | 268.06                     |
| 2020 | 7     | 12  | 1      | 805.3  | 0.808393   | 262.7         | 436.5         | 638.6         |                    | -                          | 121.23                     | 323.33                     |
| 2020 | 7     | 12  | 2      | 783.6  | 0.791424   | 257.2         | 427.4         | 625.2         |                    | -                          | 133.77                     | 331.63                     |
| 2020 | 7     | 12  | 3      | 781.1  | 0.739816   | 240.4         | 399.5         | 584.5         |                    | -                          | 108.40                     | 293.35                     |

| Year | Month | Day | Period | Load   | Wind     | Wind [MW] | Wind [MW] | Wind [MW] | Min Steam [MW] | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|----------|-----------|-----------|-----------|----------------|-------------------------------|-------------------------------|-------------------------------|
|      |       |     |        |        | Shape    | 325       | 540       | 790       |                |                               |                               |                               |
| 2020 | 7     | 12  | 4      | 749.5  | 0.733406 | 238.4     | 396.0     | 579.4     | 490            | -                             | 136.54                        | 319.89                        |
| 2020 | 7     | 12  | 5      | 745.1  | 0.705751 | 229.4     | 381.1     | 557.5     | 490            | -                             | 126.01                        | 302.44                        |
| 2020 | 7     | 12  | 6      | 770.6  | 0.850692 | 276.5     | 459.4     | 672.0     | 490            | -                             | 178.77                        | 391.45                        |
| 2020 | 7     | 12  | 7      | 780.2  | 0.629687 | 204.6     | 340.0     | 497.5     | 490            | -                             | 49.83                         | 207.25                        |
| 2020 | 7     | 12  | 8      | 849.7  | 0.508537 | 165.3     | 274.6     | 401.7     | 490            | -                             | -                             | 42.04                         |
| 2020 | 7     | 12  | 9      | 928.9  | 0.48427  | 157.4     | 261.5     | 382.6     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 10     | 1012.4 | 0.457804 | 148.8     | 247.2     | 361.7     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 11     | 1082.5 | 0.502656 | 163.4     | 271.4     | 397.1     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 12     | 1103.8 | 0.733415 | 238.4     | 396.0     | 579.4     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 13     | 1038.7 | 0.622533 | 202.3     | 336.2     | 491.8     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 14     | 1075   | 0.527686 | 171.5     | 285.0     | 416.9     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 15     | 1087   | 0.422288 | 137.2     | 228.0     | 333.6     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 16     | 1103.2 | 0.29415  | 95.6      | 158.8     | 232.4     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 17     | 1115.6 | 0.247839 | 80.5      | 133.8     | 195.8     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 18     | 1075.9 | 0.178206 | 57.9      | 96.2      | 140.8     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 19     | 1025.6 | 0.195008 | 63.4      | 105.3     | 154.1     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 20     | 1006.5 | 0.233178 | 75.8      | 125.9     | 184.2     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 21     | 1001.7 | 0.225971 | 73.4      | 122.0     | 178.5     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 22     | 973.5  | 0.230432 | 74.9      | 124.4     | 182.0     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 23     | 891.8  | 0.267791 | 87.0      | 144.6     | 211.6     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 12  | 24     | 797.7  | 0.201479 | 65.5      | 108.8     | 159.2     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 1      | 750.2  | 0.231813 | 75.3      | 125.2     | 183.1     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 2      | 730    | 0.171014 | 55.6      | 92.3      | 135.1     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 3      | 712.5  | 0.209867 | 68.2      | 113.3     | 165.8     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 4      | 730    | 0.230128 | 74.8      | 124.3     | 181.8     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 5      | 748.5  | 0.181809 | 59.1      | 98.2      | 143.6     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 6      | 832.9  | 0.196377 | 63.8      | 106.0     | 155.1     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 7      | 984.4  | 0.220509 | 71.7      | 119.1     | 174.2     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 8      | 1070.6 | 0.162309 | 52.8      | 87.6      | 128.2     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 9      | 1163.9 | 0.145345 | 47.2      | 78.5      | 114.8     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 10     | 1133.8 | 0.095838 | 31.1      | 51.8      | 75.7      | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 11     | 1194.9 | 0.073558 | 23.9      | 39.7      | 58.1      | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 12     | 1199.3 | 0.130678 | 42.5      | 70.6      | 103.2     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 13     | 1182.9 | 0.153899 | 50.0      | 83.1      | 121.6     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 14     | 1154.8 | 0.22673  | 73.7      | 122.4     | 179.1     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 15     | 1114.6 | 0.283168 | 92.0      | 152.9     | 223.7     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 16     | 1110.1 | 0.323997 | 105.3     | 175.0     | 256.0     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 17     | 1151.8 | 0.391131 | 127.1     | 211.2     | 309.0     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 18     | 1105.5 | 0.564275 | 183.4     | 304.7     | 445.8     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 19     | 1061.8 | 0.409837 | 133.2     | 221.3     | 323.8     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 20     | 1011.4 | 0.344465 | 112.0     | 186.0     | 272.1     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 21     | 1034   | 0.33138  | 107.7     | 178.9     | 261.8     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 22     | 1026.4 | 0.321293 | 104.4     | 173.5     | 253.8     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 23     | 936.1  | 0.40153  | 130.5     | 216.8     | 317.2     | 490            | -                             | -                             | -                             |
| 2020 | 7     | 13  | 24     | 825.6  | 0.396484 | 128.9     | 214.1     | 313.2     | 490            | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 7     | 14  | 1      | 764.2  | 0.444806   | 144.6         | 240.2         | 351.4         |                    | -                          | -                          | 77.20                      |
| 2020 | 7     | 14  | 2      | 738.7  | 0.545506   | 177.3         | 294.6         | 430.9         |                    | -                          | 45.87                      | 182.25                     |
| 2020 | 7     | 14  | 3      | 718.9  | 0.574998   | 186.9         | 310.5         | 454.2         |                    | -                          | 81.60                      | 225.35                     |
| 2020 | 7     | 14  | 4      | 723.5  | 0.553124   | 179.8         | 298.7         | 437.0         |                    | -                          | 65.19                      | 203.47                     |
| 2020 | 7     | 14  | 5      | 757.6  | 0.583157   | 189.5         | 314.9         | 460.7         |                    | -                          | 47.30                      | 193.09                     |
| 2020 | 7     | 14  | 6      | 822.2  | 0.555789   | 180.6         | 300.1         | 439.1         |                    | -                          | -                          | 106.87                     |
| 2020 | 7     | 14  | 7      | 954.5  | 0.643769   | 209.2         | 347.6         | 508.6         |                    | -                          | -                          | 44.08                      |
| 2020 | 7     | 14  | 8      | 1051.9 | 0.588356   | 191.2         | 317.7         | 464.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 9      | 1106.9 | 0.606877   | 197.2         | 327.7         | 479.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 10     | 1115   | 0.565139   | 183.7         | 305.2         | 446.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 11     | 1159.3 | 0.671722   | 218.3         | 362.7         | 530.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 12     | 1181.3 | 0.637523   | 207.2         | 344.3         | 503.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 13     | 1165.2 | 0.635798   | 206.6         | 343.3         | 502.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 14     | 1145.4 | 0.69238    | 225.0         | 373.9         | 547.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 15     | 1144.2 | 0.573028   | 186.2         | 309.4         | 452.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 16     | 1145.4 | 0.573065   | 186.2         | 309.5         | 452.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 17     | 1134.2 | 0.577203   | 187.6         | 311.7         | 456.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 18     | 1092.3 | 0.668729   | 217.3         | 361.1         | 528.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 19     | 1089.1 | 0.599607   | 194.9         | 323.8         | 473.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 20     | 1079.3 | 0.532547   | 173.1         | 287.6         | 420.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 21     | 1063.8 | 0.416794   | 135.5         | 225.1         | 329.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 22     | 1028.4 | 0.367368   | 119.4         | 198.4         | 290.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 23     | 934    | 0.395484   | 128.5         | 213.6         | 312.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 14  | 24     | 815.3  | 0.425071   | 138.1         | 229.5         | 335.8         |                    | -                          | -                          | 10.51                      |
| 2020 | 7     | 15  | 1      | 761.4  | 0.540123   | 175.5         | 291.7         | 426.7         |                    | -                          | 20.27                      | 155.30                     |
| 2020 | 7     | 15  | 2      | 740.5  | 0.57053    | 185.4         | 308.1         | 450.7         |                    | -                          | 57.59                      | 200.22                     |
| 2020 | 7     | 15  | 3      | 733.2  | 0.64748    | 210.4         | 349.6         | 511.5         |                    | -                          | 106.44                     | 268.31                     |
| 2020 | 7     | 15  | 4      | 735.5  | 0.633521   | 205.9         | 342.1         | 500.5         |                    | -                          | 96.60                      | 254.98                     |
| 2020 | 7     | 15  | 5      | 764.1  | 0.630203   | 204.8         | 340.3         | 497.9         |                    | -                          | 66.21                      | 223.76                     |
| 2020 | 7     | 15  | 6      | 850.7  | 0.591883   | 192.4         | 319.6         | 467.6         |                    | -                          | -                          | 106.89                     |
| 2020 | 7     | 15  | 7      | 977.8  | 0.632901   | 205.7         | 341.8         | 500.0         |                    | -                          | -                          | 12.19                      |
| 2020 | 7     | 15  | 8      | 1053.3 | 0.613124   | 199.3         | 331.1         | 484.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 15  | 9      | 1096.1 | 0.750665   | 244.0         | 405.4         | 593.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 15  | 10     | 1114.1 | 0.692715   | 225.1         | 374.1         | 547.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 15  | 11     | 1129.6 | 0.637682   | 207.2         | 344.3         | 503.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 15  | 12     | 1144.8 | 0.548164   | 178.2         | 296.0         | 433.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 15  | 13     | 1114.3 | 0.61185    | 198.9         | 330.4         | 483.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 15  | 14     | 1121.1 | 0.685805   | 222.9         | 370.3         | 541.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 15  | 15     | 1129.2 | 0.648078   | 210.6         | 350.0         | 512.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 15  | 16     | 1159.6 | 0.661842   | 215.1         | 357.4         | 522.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 15  | 17     | 1139.9 | 0.650978   | 211.6         | 351.5         | 514.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 15  | 18     | 1063.6 | 0.651194   | 211.6         | 351.6         | 514.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 15  | 19     | 1029.4 | 0.587214   | 190.8         | 317.1         | 463.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 15  | 20     | 1046.9 | 0.672116   | 218.4         | 362.9         | 531.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 15  | 21     | 1027.5 | 0.61943    | 201.3         | 334.5         | 489.3         |                    | -                          | -                          | -                          |



| Year | Month | Day | Period | Load   | Wind     | Wind [MW] | Wind [MW] | Wind [MW] | Min Steam [MW] | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|----------|-----------|-----------|-----------|----------------|-------------------------------|-------------------------------|-------------------------------|
|      |       |     |        |        | Shape    | 325       | 540       | 790       |                |                               |                               |                               |
| 2020 | 7     | 15  | 22     | 998.1  | 0.620215 | 201.6     | 334.9     | 490.0     |                | -                             | -                             | -                             |
| 2020 | 7     | 15  | 23     | 922.1  | 0.607355 | 197.4     | 328.0     | 479.8     |                | -                             | -                             | 47.71                         |
| 2020 | 7     | 15  | 24     | 800.6  | 0.627311 | 203.9     | 338.7     | 495.6     |                | -                             | 28.15                         | 184.98                        |
| 2020 | 7     | 16  | 1      | 755.5  | 0.652897 | 212.2     | 352.6     | 515.8     |                | -                             | 87.06                         | 250.29                        |
| 2020 | 7     | 16  | 2      | 734.5  | 0.667596 | 217.0     | 360.5     | 527.4     |                | -                             | 116.00                        | 282.90                        |
| 2020 | 7     | 16  | 3      | 729.8  | 0.668463 | 217.3     | 361.0     | 528.1     |                | -                             | 121.17                        | 288.29                        |
| 2020 | 7     | 16  | 4      | 724.3  | 0.665309 | 216.2     | 359.3     | 525.6     |                | -                             | 124.97                        | 291.29                        |
| 2020 | 7     | 16  | 5      | 758.3  | 0.625567 | 203.3     | 337.8     | 494.2     |                | -                             | 69.51                         | 225.90                        |
| 2020 | 7     | 16  | 6      | 863.7  | 0.619366 | 201.3     | 334.5     | 489.3     |                | -                             | -                             | 115.60                        |
| 2020 | 7     | 16  | 7      | 990.8  | 0.602202 | 195.7     | 325.2     | 475.7     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 8      | 1085.7 | 0.598058 | 194.4     | 323.0     | 472.5     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 9      | 1155.7 | 0.616712 | 200.4     | 333.0     | 487.2     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 10     | 1189.1 | 0.556882 | 181.0     | 300.7     | 439.9     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 11     | 1205.5 | 0.509937 | 165.7     | 275.4     | 402.9     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 12     | 1142.4 | 0.410131 | 133.3     | 221.5     | 324.0     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 13     | 1128.6 | 0.406038 | 132.0     | 219.3     | 320.8     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 14     | 1183.9 | 0.402003 | 130.7     | 217.1     | 317.6     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 15     | 1128.2 | 0.293427 | 95.4      | 158.5     | 231.8     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 16     | 1143.2 | 0.309361 | 100.5     | 167.1     | 244.4     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 17     | 1164   | 0.225518 | 73.3      | 121.8     | 178.2     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 18     | 1115.7 | 0.207269 | 67.4      | 111.9     | 163.7     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 19     | 1058.5 | 0.155811 | 50.6      | 84.1      | 123.1     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 20     | 1081.4 | 0.146328 | 47.6      | 79.0      | 115.6     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 21     | 1058   | 0.137785 | 44.8      | 74.4      | 108.8     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 22     | 1026.4 | 0.217355 | 70.6      | 117.4     | 171.7     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 23     | 919.3  | 0.215175 | 69.9      | 116.2     | 170.0     |                | -                             | -                             | -                             |
| 2020 | 7     | 16  | 24     | 822.6  | 0.150287 | 48.8      | 81.2      | 118.7     |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 1      | 776.2  | 0.080477 | 26.2      | 43.5      | 63.6      |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 2      | 745.9  | 0.085235 | 27.7      | 46.0      | 67.3      |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 3      | 727    | 0.04853  | 15.8      | 26.2      | 38.3      |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 4      | 722.6  | 0.103497 | 33.6      | 55.9      | 81.8      |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 5      | 749.9  | 0.099784 | 32.4      | 53.9      | 78.8      |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 6      | 794.4  | 0.194039 | 63.1      | 104.8     | 153.3     |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 7      | 936.4  | 0.209642 | 68.1      | 113.2     | 165.6     |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 8      | 1053.8 | 0.220075 | 71.5      | 118.8     | 173.9     |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 9      | 1149.6 | 0.1928   | 62.7      | 104.1     | 152.3     |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 10     | 1133.2 | 0.193254 | 62.8      | 104.4     | 152.7     |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 11     | 1126   | 0.267398 | 86.9      | 144.4     | 211.2     |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 12     | 1139.8 | 0.284173 | 92.4      | 153.5     | 224.5     |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 13     | 1108.1 | 0.32857  | 106.8     | 177.4     | 259.6     |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 14     | 1084.1 | 0.341615 | 111.0     | 184.5     | 269.9     |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 15     | 1082.3 | 0.41418  | 134.6     | 223.7     | 327.2     |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 16     | 1059.1 | 0.436134 | 141.7     | 235.5     | 344.5     |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 17     | 1080.2 | 0.435231 | 141.4     | 235.0     | 343.8     |                | -                             | -                             | -                             |
| 2020 | 7     | 17  | 18     | 1034.4 | 0.366067 | 119.0     | 197.7     | 289.2     |                | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 7     | 17  | 19     | 992.8  | 0.34691       | 112.7            | 187.3            | 274.1            |                       | -                             | -                             | -                             |
| 2020 | 7     | 17  | 20     | 998.1  | 0.416672      | 135.4            | 225.0            | 329.2            |                       | -                             | -                             | -                             |
| 2020 | 7     | 17  | 21     | 1017.1 | 0.490548      | 159.4            | 264.9            | 387.5            |                       | -                             | -                             | -                             |
| 2020 | 7     | 17  | 22     | 974.4  | 0.504362      | 163.9            | 272.4            | 398.4            |                       | -                             | -                             | -                             |
| 2020 | 7     | 17  | 23     | 884.5  | 0.547225      | 177.8            | 295.5            | 432.3            |                       | -                             | -                             | 37.81                         |
| 2020 | 7     | 17  | 24     | 809.9  | 0.608394      | 197.7            | 328.5            | 480.6            |                       | -                             | 8.63                          | 160.73                        |
| 2020 | 7     | 18  | 1      | 759.7  | 0.617046      | 200.5            | 333.2            | 487.5            |                       | -                             | 63.50                         | 217.77                        |
| 2020 | 7     | 18  | 2      | 742.9  | 0.563343      | 183.1            | 304.2            | 445.0            |                       | -                             | 51.31                         | 192.14                        |
| 2020 | 7     | 18  | 3      | 720.5  | 0.508462      | 165.3            | 274.6            | 401.7            |                       | -                             | 44.07                         | 171.18                        |
| 2020 | 7     | 18  | 4      | 693    | 0.449677      | 146.1            | 242.8            | 355.2            |                       | -                             | 39.83                         | 152.24                        |
| 2020 | 7     | 18  | 5      | 712.4  | 0.469808      | 152.7            | 253.7            | 371.1            |                       | -                             | 31.30                         | 148.75                        |
| 2020 | 7     | 18  | 6      | 730.8  | 0.488268      | 158.7            | 263.7            | 385.7            |                       | -                             | 22.86                         | 144.93                        |
| 2020 | 7     | 18  | 7      | 800.9  | 0.551363      | 179.2            | 297.7            | 435.6            |                       | -                             | -                             | 124.68                        |
| 2020 | 7     | 18  | 8      | 873    | 0.493116      | 160.3            | 266.3            | 389.6            |                       | -                             | -                             | 6.56                          |
| 2020 | 7     | 18  | 9      | 935.9  | 0.291928      | 94.9             | 157.6            | 230.6            |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 10     | 999.5  | 0.244674      | 79.5             | 132.1            | 193.3            |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 11     | 1059.2 | 0.239044      | 77.7             | 129.1            | 188.8            |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 12     | 1010   | 0.237379      | 77.1             | 128.2            | 187.5            |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 13     | 997.1  | 0.272651      | 88.6             | 147.2            | 215.4            |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 14     | 1021.7 | 0.295938      | 96.2             | 159.8            | 233.8            |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 15     | 1012.5 | 0.262597      | 85.3             | 141.8            | 207.5            |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 16     | 1029.6 | 0.195685      | 63.6             | 105.7            | 154.6            |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 17     | 1034.2 | 0.137223      | 44.6             | 74.1             | 108.4            |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 18     | 1041.7 | 0.119809      | 38.9             | 64.7             | 94.6             |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 19     | 992.9  | 0.238366      | 77.5             | 128.7            | 188.3            |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 20     | 949.1  | 0.278516      | 90.5             | 150.4            | 220.0            |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 21     | 976.9  | 0.267414      | 86.9             | 144.4            | 211.3            |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 22     | 968    | 0.212481      | 69.1             | 114.7            | 167.9            |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 23     | 929.2  | 0.199941      | 65.0             | 108.0            | 158.0            |                       | -                             | -                             | -                             |
| 2020 | 7     | 18  | 24     | 856.5  | 0.209777      | 68.2             | 113.3            | 165.7            |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 1      | 807.4  | 0.148132      | 48.1             | 80.0             | 117.0            |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 2      | 767.6  | 0.090836      | 29.5             | 49.1             | 71.8             |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 3      | 740.7  | 0.034407      | 11.2             | 18.6             | 27.2             |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 4      | 725.1  | 0.016965      | 5.5              | 9.2              | 13.4             |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 5      | 697.1  | 0.010559      | 3.4              | 5.7              | 8.3              |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 6      | 683.8  | 0.005845      | 1.9              | 3.2              | 4.6              |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 7      | 733.7  | 0.005661      | 1.8              | 3.1              | 4.5              |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 8      | 810.1  | 0.004765      | 1.5              | 2.6              | 3.8              |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 9      | 917.7  | 0.004751      | 1.5              | 2.6              | 3.8              |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 10     | 992.9  | 0.006665      | 2.2              | 3.6              | 5.3              |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 11     | 1005.8 | 0.007364      | 2.4              | 4.0              | 5.8              |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 12     | 1010.7 | 0.044016      | 14.3             | 23.8             | 34.8             |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 13     | 1002.3 | 0.038533      | 12.5             | 20.8             | 30.4             |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 14     | 980.1  | 0.040289      | 13.1             | 21.8             | 31.8             |                       | -                             | -                             | -                             |
| 2020 | 7     | 19  | 15     | 996.8  | 0.057647      | 18.7             | 31.1             | 45.5             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 7     | 19  | 16     | 1011   | 0.044181   | 14.4          | 23.9          | 34.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 19  | 17     | 992.4  | 0.01303    | 4.2           | 7.0           | 10.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 19  | 18     | 984.8  | 0.009399   | 3.1           | 5.1           | 7.4           |                    | -                          | -                          | -                          |
| 2020 | 7     | 19  | 19     | 983    | 0.01629    | 5.3           | 8.8           | 12.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 19  | 20     | 995.4  | 0.048474   | 15.8          | 26.2          | 38.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 19  | 21     | 1030.4 | 0.032674   | 10.6          | 17.6          | 25.8          |                    | -                          | -                          | -                          |
| 2020 | 7     | 19  | 22     | 1004.8 | 0.040165   | 13.1          | 21.7          | 31.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 19  | 23     | 908.2  | 0.059152   | 19.2          | 31.9          | 46.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 19  | 24     | 807    | 0.094198   | 30.6          | 50.9          | 74.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 1      | 777.6  | 0.09688    | 31.5          | 52.3          | 76.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 2      | 759.7  | 0.206393   | 67.1          | 111.5         | 163.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 3      | 732.5  | 0.179109   | 58.2          | 96.7          | 141.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 4      | 743.1  | 0.18252    | 59.3          | 98.6          | 144.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 5      | 781.6  | 0.147487   | 47.9          | 79.6          | 116.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 6      | 837.6  | 0.093439   | 30.4          | 50.5          | 73.8          |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 7      | 977    | 0.071292   | 23.2          | 38.5          | 56.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 8      | 1074.9 | 0.026696   | 8.7           | 14.4          | 21.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 9      | 1152   | 0.035881   | 11.7          | 19.4          | 28.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 10     | 1169.5 | 0.05964    | 19.4          | 32.2          | 47.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 11     | 1185.4 | 0.052527   | 17.1          | 28.4          | 41.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 12     | 1198.4 | 0.055888   | 18.2          | 30.2          | 44.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 13     | 1199.6 | 0.106382   | 34.6          | 57.4          | 84.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 14     | 1140.1 | 0.163327   | 53.1          | 88.2          | 129.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 15     | 1174.5 | 0.274676   | 89.3          | 148.3         | 217.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 16     | 1152.9 | 0.299364   | 97.3          | 161.7         | 236.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 17     | 1160.9 | 0.322157   | 104.7         | 174.0         | 254.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 18     | 1088.6 | 0.449637   | 146.1         | 242.8         | 355.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 19     | 1070.1 | 0.650004   | 211.3         | 351.0         | 513.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 20     | 1071.6 | 0.657672   | 213.7         | 355.1         | 519.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 20  | 21     | 1019   | 0.714608   | 232.2         | 385.9         | 564.5         |                    | -                          | -                          | 35.54                      |
| 2020 | 7     | 20  | 22     | 995    | 0.737539   | 239.7         | 398.3         | 582.7         |                    | -                          | -                          | 77.66                      |
| 2020 | 7     | 20  | 23     | 912.3  | 0.741923   | 241.1         | 400.6         | 586.1         |                    | -                          | -                          | 163.82                     |
| 2020 | 7     | 20  | 24     | 823.3  | 0.513581   | 166.9         | 277.3         | 405.7         |                    | -                          | -                          | 72.43                      |
| 2020 | 7     | 21  | 1      | 771.6  | 0.608248   | 197.7         | 328.5         | 480.5         |                    | -                          | 46.85                      | 198.92                     |
| 2020 | 7     | 21  | 2      | 760.6  | 0.652515   | 212.1         | 352.4         | 515.5         |                    | -                          | 81.76                      | 244.89                     |
| 2020 | 7     | 21  | 3      | 728.7  | 0.766304   | 249.0         | 413.8         | 605.4         |                    | 10.35                      | 175.10                     | 366.68                     |
| 2020 | 7     | 21  | 4      | 730    | 0.613687   | 199.4         | 331.4         | 484.8         |                    | -                          | 91.39                      | 244.81                     |
| 2020 | 7     | 21  | 5      | 765.1  | 0.462493   | 150.3         | 249.7         | 365.4         |                    | -                          | -                          | 90.27                      |
| 2020 | 7     | 21  | 6      | 836.6  | 0.320965   | 104.3         | 173.3         | 253.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 21  | 7      | 965.6  | 0.369837   | 120.2         | 199.7         | 292.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 21  | 8      | 1114.5 | 0.343741   | 111.7         | 185.6         | 271.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 21  | 9      | 1175.7 | 0.297744   | 96.8          | 160.8         | 235.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 21  | 10     | 1160.8 | 0.186423   | 60.6          | 100.7         | 147.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 21  | 11     | 1141.4 | 0.224519   | 73.0          | 121.2         | 177.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 21  | 12     | 1152.6 | 0.222814   | 72.4          | 120.3         | 176.0         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind     | Wind [MW] | Wind [MW] | Wind [MW] | Min Steam [MW] | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|----------|-----------|-----------|-----------|----------------|-------------------------------|-------------------------------|-------------------------------|
|      |       |     |        |        | Shape    | 325       | 540       | 790       |                |                               |                               |                               |
| 2020 | 7     | 21  | 13     | 1158.9 | 0.271645 | 88.3      | 146.7     | 214.6     |                | -                             | -                             | -                             |
| 2020 | 7     | 21  | 14     | 1133.7 | 0.373745 | 121.5     | 201.8     | 295.3     |                | -                             | -                             | -                             |
| 2020 | 7     | 21  | 15     | 1167.8 | 0.445213 | 144.7     | 240.4     | 351.7     |                | -                             | -                             | -                             |
| 2020 | 7     | 21  | 16     | 1161.4 | 0.532793 | 173.2     | 287.7     | 420.9     |                | -                             | -                             | -                             |
| 2020 | 7     | 21  | 17     | 1154.3 | 0.629322 | 204.5     | 339.8     | 497.2     |                | -                             | -                             | -                             |
| 2020 | 7     | 21  | 18     | 1115.4 | 0.642215 | 208.7     | 346.8     | 507.3     |                | -                             | -                             | -                             |
| 2020 | 7     | 21  | 19     | 1070.6 | 0.754759 | 245.3     | 407.6     | 596.3     |                | -                             | -                             | 15.66                         |
| 2020 | 7     | 21  | 20     | 1052.3 | 0.800241 | 260.1     | 432.1     | 632.2     |                | -                             | -                             | 69.89                         |
| 2020 | 7     | 21  | 21     | 1083.5 | 0.840579 | 273.2     | 453.9     | 664.1     |                | -                             | -                             | 70.56                         |
| 2020 | 7     | 21  | 22     | 1038.1 | 0.746369 | 242.6     | 403.0     | 589.6     |                | -                             | -                             | 41.53                         |
| 2020 | 7     | 21  | 23     | 925    | 0.790082 | 256.8     | 426.6     | 624.2     |                | -                             | -                             | 189.16                        |
| 2020 | 7     | 21  | 24     | 839.9  | 0.731822 | 237.8     | 395.2     | 578.1     |                | -                             | 45.28                         | 228.24                        |
| 2020 | 7     | 22  | 1      | 781.7  | 0.550407 | 178.9     | 297.2     | 434.8     |                | -                             | 5.52                          | 143.12                        |
| 2020 | 7     | 22  | 2      | 757.9  | 0.403482 | 131.1     | 217.9     | 318.8     |                | -                             | -                             | 50.85                         |
| 2020 | 7     | 22  | 3      | 759.5  | 0.515831 | 167.6     | 278.5     | 407.5     |                | -                             | 9.05                          | 138.01                        |
| 2020 | 7     | 22  | 4      | 760.5  | 0.386757 | 125.7     | 208.8     | 305.5     |                | -                             | -                             | 35.04                         |
| 2020 | 7     | 22  | 5      | 792.5  | 0.323357 | 105.1     | 174.6     | 255.5     |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 6      | 861.1  | 0.24468  | 79.5      | 132.1     | 193.3     |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 7      | 996.9  | 0.146741 | 47.7      | 79.2      | 115.9     |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 8      | 1107.2 | 0.086514 | 28.1      | 46.7      | 68.3      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 9      | 1147.6 | 0.07515  | 24.4      | 40.6      | 59.4      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 10     | 1168.8 | 0.01375  | 4.5       | 7.4       | 10.9      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 11     | 1170   | 0.020316 | 6.6       | 11.0      | 16.0      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 12     | 1204.9 | 0.017163 | 5.6       | 9.3       | 13.6      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 13     | 1241.3 | 0.040667 | 13.2      | 22.0      | 32.1      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 14     | 1224   | 0.051604 | 16.8      | 27.9      | 40.8      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 15     | 1221   | 0.046391 | 15.1      | 25.1      | 36.6      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 16     | 1235   | 0.062124 | 20.2      | 33.5      | 49.1      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 17     | 1221.1 | 0.068253 | 22.2      | 36.9      | 53.9      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 18     | 1165.2 | 0.115706 | 37.6      | 62.5      | 91.4      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 19     | 1084.2 | 0.186812 | 60.7      | 100.9     | 147.6     |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 20     | 1097.4 | 0.087759 | 28.5      | 47.4      | 69.3      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 21     | 1143.4 | 0.123601 | 40.2      | 66.7      | 97.6      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 22     | 1086.4 | 0.036598 | 11.9      | 19.8      | 28.9      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 23     | 1025.1 | 0.032007 | 10.4      | 17.3      | 25.3      |                | -                             | -                             | -                             |
| 2020 | 7     | 22  | 24     | 898.3  | 0.048518 | 15.8      | 26.2      | 38.3      |                | -                             | -                             | -                             |
| 2020 | 7     | 23  | 1      | 811.6  | 0.066087 | 21.5      | 35.7      | 52.2      |                | -                             | -                             | -                             |
| 2020 | 7     | 23  | 2      | 798    | 0.019089 | 6.2       | 10.3      | 15.1      |                | -                             | -                             | -                             |
| 2020 | 7     | 23  | 3      | 743.8  | 0.026429 | 8.6       | 14.3      | 20.9      |                | -                             | -                             | -                             |
| 2020 | 7     | 23  | 4      | 741    | 0.036695 | 11.9      | 19.8      | 29.0      |                | -                             | -                             | -                             |
| 2020 | 7     | 23  | 5      | 767.1  | 0.031766 | 10.3      | 17.2      | 25.1      |                | -                             | -                             | -                             |
| 2020 | 7     | 23  | 6      | 836.4  | 0.036355 | 11.8      | 19.6      | 28.7      |                | -                             | -                             | -                             |
| 2020 | 7     | 23  | 7      | 963.3  | 0.031641 | 10.3      | 17.1      | 25.0      |                | -                             | -                             | -                             |
| 2020 | 7     | 23  | 8      | 1038.7 | 0.036623 | 11.9      | 19.8      | 28.9      |                | -                             | -                             | -                             |
| 2020 | 7     | 23  | 9      | 1061.8 | 0.028669 | 9.3       | 15.5      | 22.6      |                | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 7     | 23  | 10     | 1142.6 | 0.022671   | 7.4           | 12.2          | 17.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 23  | 11     | 1151.7 | 0.050356   | 16.4          | 27.2          | 39.8          |                    | -                          | -                          | -                          |
| 2020 | 7     | 23  | 12     | 1118   | 0.075648   | 24.6          | 40.8          | 59.8          |                    | -                          | -                          | -                          |
| 2020 | 7     | 23  | 13     | 1088.7 | 0.076757   | 24.9          | 41.4          | 60.6          |                    | -                          | -                          | -                          |
| 2020 | 7     | 23  | 14     | 1098.6 | 0.107262   | 34.9          | 57.9          | 84.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 23  | 15     | 1112   | 0.275708   | 89.6          | 148.9         | 217.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 23  | 16     | 1106   | 0.45475    | 147.8         | 245.6         | 359.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 23  | 17     | 1140.7 | 0.536385   | 174.3         | 289.6         | 423.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 23  | 18     | 1085.2 | 0.511326   | 166.2         | 276.1         | 403.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 23  | 19     | 1034.5 | 0.569214   | 185.0         | 307.4         | 449.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 23  | 20     | 1049.2 | 0.684588   | 222.5         | 369.7         | 540.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 23  | 21     | 1020.3 | 0.518806   | 168.6         | 280.2         | 409.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 23  | 22     | 970.8  | 0.124283   | 40.4          | 67.1          | 98.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 23  | 23     | 892.7  | 0.164873   | 53.6          | 89.0          | 130.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 23  | 24     | 784.2  | 0.249887   | 81.2          | 134.9         | 197.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 1      | 748.8  | 0.290977   | 94.6          | 157.1         | 229.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 2      | 720    | 0.327892   | 106.6         | 177.1         | 259.0         |                    | -                          | -                          | 29.03                      |
| 2020 | 7     | 24  | 3      | 700.8  | 0.326158   | 106.0         | 176.1         | 257.7         |                    | -                          | -                          | 46.86                      |
| 2020 | 7     | 24  | 4      | 732.4  | 0.334432   | 108.7         | 180.6         | 264.2         |                    | -                          | -                          | 21.80                      |
| 2020 | 7     | 24  | 5      | 749.8  | 0.385743   | 125.4         | 208.3         | 304.7         |                    | -                          | -                          | 44.94                      |
| 2020 | 7     | 24  | 6      | 798.9  | 0.279627   | 90.9          | 151.0         | 220.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 7      | 941.6  | 0.246232   | 80.0          | 133.0         | 194.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 8      | 1089.9 | 0.189005   | 61.4          | 102.1         | 149.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 9      | 1125   | 0.220345   | 71.6          | 119.0         | 174.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 10     | 1127.9 | 0.264749   | 86.0          | 143.0         | 209.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 11     | 1148.4 | 0.265718   | 86.4          | 143.5         | 209.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 12     | 1136.3 | 0.272565   | 88.6          | 147.2         | 215.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 13     | 1126.1 | 0.253615   | 82.4          | 137.0         | 200.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 14     | 1096.2 | 0.18266    | 59.4          | 98.6          | 144.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 15     | 1096.5 | 0.151976   | 49.4          | 82.1          | 120.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 16     | 1090.6 | 0.117672   | 38.2          | 63.5          | 93.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 17     | 1073.6 | 0.135806   | 44.1          | 73.3          | 107.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 18     | 1012.2 | 0.116272   | 37.8          | 62.8          | 91.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 19     | 975.1  | 0.074107   | 24.1          | 40.0          | 58.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 20     | 972.2  | 0.064733   | 21.0          | 35.0          | 51.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 21     | 982.1  | 0.048038   | 15.6          | 25.9          | 37.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 22     | 962.9  | 0.063531   | 20.6          | 34.3          | 50.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 23     | 896.5  | 0.055353   | 18.0          | 29.9          | 43.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 24  | 24     | 799.4  | 0.084466   | 27.5          | 45.6          | 66.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 1      | 754.5  | 0.09666    | 31.4          | 52.2          | 76.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 2      | 709.7  | 0.124036   | 40.3          | 67.0          | 98.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 3      | 706.3  | 0.111087   | 36.1          | 60.0          | 87.8          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 4      | 710.7  | 0.101899   | 33.1          | 55.0          | 80.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 5      | 703.8  | 0.117278   | 38.1          | 63.3          | 92.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 6      | 712.2  | 0.101805   | 33.1          | 55.0          | 80.4          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 7     | 25  | 7      | 803.6  | 0.086672   | 28.2          | 46.8          | 68.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 8      | 877.6  | 0.052322   | 17.0          | 28.3          | 41.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 9      | 1006.3 | 0.045162   | 14.7          | 24.4          | 35.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 10     | 988.7  | 0.039262   | 12.8          | 21.2          | 31.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 11     | 966.3  | 0.022614   | 7.3           | 12.2          | 17.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 12     | 958.7  | 0.023288   | 7.6           | 12.6          | 18.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 13     | 978.6  | 0.03437    | 11.2          | 18.6          | 27.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 14     | 927    | 0.035375   | 11.5          | 19.1          | 27.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 15     | 952.8  | 0.049531   | 16.1          | 26.7          | 39.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 16     | 937.5  | 0.050993   | 16.6          | 27.5          | 40.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 17     | 952.1  | 0.060963   | 19.8          | 32.9          | 48.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 18     | 918.5  | 0.100851   | 32.8          | 54.5          | 79.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 19     | 889.7  | 0.102473   | 33.3          | 55.3          | 81.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 20     | 869.3  | 0.22404    | 72.8          | 121.0         | 177.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 21     | 896.8  | 0.31716    | 103.1         | 171.3         | 250.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 22     | 889.9  | 0.30927    | 100.5         | 167.0         | 244.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 23     | 836.2  | 0.332591   | 108.1         | 179.6         | 262.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 25  | 24     | 756.2  | 0.333226   | 108.3         | 179.9         | 263.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 1      | 731.7  | 0.294432   | 95.7          | 159.0         | 232.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 2      | 723.6  | 0.250119   | 81.3          | 135.1         | 197.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 3      | 690.7  | 0.225552   | 73.3          | 121.8         | 178.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 4      | 690.9  | 0.198364   | 64.5          | 107.1         | 156.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 5      | 686.5  | 0.179414   | 58.3          | 96.9          | 141.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 6      | 688.8  | 0.165727   | 53.9          | 89.5          | 130.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 7      | 733.2  | 0.139103   | 45.2          | 75.1          | 109.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 8      | 809.6  | 0.09611    | 31.2          | 51.9          | 75.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 9      | 871.8  | 0.228619   | 74.3          | 123.5         | 180.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 10     | 913.3  | 0.212158   | 69.0          | 114.6         | 167.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 11     | 949.4  | 0.208395   | 67.7          | 112.5         | 164.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 12     | 983.4  | 0.274413   | 89.2          | 148.2         | 216.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 13     | 987.2  | 0.25435    | 82.7          | 137.3         | 200.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 14     | 956.9  | 0.252694   | 82.1          | 136.5         | 199.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 15     | 944.3  | 0.25049    | 81.4          | 135.3         | 197.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 16     | 1004.1 | 0.296977   | 96.5          | 160.4         | 234.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 17     | 1037.3 | 0.297726   | 96.8          | 160.8         | 235.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 18     | 1014.5 | 0.284755   | 92.5          | 153.8         | 225.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 19     | 978    | 0.23263    | 75.6          | 125.6         | 183.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 20     | 941.8  | 0.293529   | 95.4          | 158.5         | 231.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 21     | 911.7  | 0.334432   | 108.7         | 180.6         | 264.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 22     | 937.2  | 0.342085   | 111.2         | 184.7         | 270.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 23     | 820.4  | 0.356943   | 116.0         | 192.7         | 282.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 26  | 24     | 763.5  | 0.287031   | 93.3          | 155.0         | 226.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 1      | 726.5  | 0.29435    | 95.7          | 158.9         | 232.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 2      | 700.6  | 0.305957   | 99.4          | 165.2         | 241.7         |                    | -                          | -                          | 31.11                      |
| 2020 | 7     | 27  | 3      | 691.9  | 0.273533   | 88.9          | 147.7         | 216.1         |                    | -                          | -                          | 14.19                      |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 7     | 27  | 4      | 700.2  | 0.27186    | 88.4          | 146.8         | 214.8         |                    | -                          | -                          | 4.57                       |
| 2020 | 7     | 27  | 5      | 726.7  | 0.147738   | 48.0          | 79.8          | 116.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 6      | 798.7  | 0.067296   | 21.9          | 36.3          | 53.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 7      | 916.7  | 0.069524   | 22.6          | 37.5          | 54.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 8      | 1047.3 | 0.048027   | 15.6          | 25.9          | 37.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 9      | 1086.7 | 0.04804    | 15.6          | 25.9          | 38.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 10     | 1083   | 0.035352   | 11.5          | 19.1          | 27.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 11     | 1090.4 | 0.044383   | 14.4          | 24.0          | 35.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 12     | 1102.9 | 0.066134   | 21.5          | 35.7          | 52.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 13     | 1053.8 | 0.037836   | 12.3          | 20.4          | 29.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 14     | 1052.8 | 0.047115   | 15.3          | 25.4          | 37.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 15     | 1062.4 | 0.027986   | 9.1           | 15.1          | 22.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 16     | 1058.2 | 0.077033   | 25.0          | 41.6          | 60.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 17     | 1100.4 | 0.058074   | 18.9          | 31.4          | 45.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 18     | 1043.9 | 0.056176   | 18.3          | 30.3          | 44.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 19     | 1001.9 | 0.06286    | 20.4          | 33.9          | 49.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 20     | 978.4  | 0.097702   | 31.8          | 52.8          | 77.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 21     | 973.4  | 0.1156     | 37.6          | 62.4          | 91.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 22     | 918.5  | 0.120749   | 39.2          | 65.2          | 95.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 23     | 878.5  | 0.138636   | 45.1          | 74.9          | 109.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 27  | 24     | 783.1  | 0.093542   | 30.4          | 50.5          | 73.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 1      | 734.2  | 0.11478    | 37.3          | 62.0          | 90.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 2      | 720.2  | 0.224055   | 72.8          | 121.0         | 177.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 3      | 701.4  | 0.156556   | 50.9          | 84.5          | 123.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 4      | 715.3  | 0.148546   | 48.3          | 80.2          | 117.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 5      | 740.1  | 0.154275   | 50.1          | 83.3          | 121.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 6      | 787    | 0.115461   | 37.5          | 62.3          | 91.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 7      | 913.1  | 0.149708   | 48.7          | 80.8          | 118.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 8      | 1014.3 | 0.126429   | 41.1          | 68.3          | 99.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 9      | 1076.4 | 0.101961   | 33.1          | 55.1          | 80.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 10     | 1085.5 | 0.091697   | 29.8          | 49.5          | 72.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 11     | 1099.2 | 0.112463   | 36.6          | 60.7          | 88.8          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 12     | 1081.5 | 0.105317   | 34.2          | 56.9          | 83.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 13     | 1088.1 | 0.116359   | 37.8          | 62.8          | 91.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 14     | 1072.5 | 0.093341   | 30.3          | 50.4          | 73.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 15     | 1010.9 | 0.103664   | 33.7          | 56.0          | 81.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 16     | 1047.1 | 0.059346   | 19.3          | 32.0          | 46.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 17     | 1014.4 | 0.070074   | 22.8          | 37.8          | 55.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 18     | 987.4  | 0.075664   | 24.6          | 40.9          | 59.8          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 19     | 968.9  | 0.052774   | 17.2          | 28.5          | 41.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 20     | 940.5  | 0.057486   | 18.7          | 31.0          | 45.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 21     | 1007.9 | 0.052787   | 17.2          | 28.5          | 41.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 22     | 913.3  | 0.030734   | 10.0          | 16.6          | 24.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 23     | 840.9  | 0.01895    | 6.2           | 10.2          | 15.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 28  | 24     | 757.4  | 0.036318   | 11.8          | 19.6          | 28.7          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 7     | 29  | 1      | 710.2  | 0.040044   | 13.0          | 21.6          | 31.6          |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 2      | 693.2  | 0.039676   | 12.9          | 21.4          | 31.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 3      | 683.6  | 0.055332   | 18.0          | 29.9          | 43.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 4      | 687.2  | 0.069535   | 22.6          | 37.5          | 54.9          |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 5      | 706.5  | 0.06159    | 20.0          | 33.3          | 48.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 6      | 793.6  | 0.046432   | 15.1          | 25.1          | 36.7          |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 7      | 928.6  | 0.022      | 7.2           | 11.9          | 17.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 8      | 1045.8 | 0.032054   | 10.4          | 17.3          | 25.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 9      | 1088.9 | 0.02926    | 9.5           | 15.8          | 23.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 10     | 1055.8 | 0.023183   | 7.5           | 12.5          | 18.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 11     | 1098.4 | 0.045596   | 14.8          | 24.6          | 36.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 12     | 1088   | 0.075122   | 24.4          | 40.6          | 59.3          |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 13     | 1064.2 | 0.103908   | 33.8          | 56.1          | 82.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 14     | 1058.2 | 0.135159   | 43.9          | 73.0          | 106.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 15     | 1088.6 | 0.204182   | 66.4          | 110.3         | 161.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 16     | 1106.3 | 0.159111   | 51.7          | 85.9          | 125.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 17     | 1101   | 0.292897   | 95.2          | 158.2         | 231.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 18     | 1042.3 | 0.28586    | 92.9          | 154.4         | 225.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 19     | 957.7  | 0.375173   | 121.9         | 202.6         | 296.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 20     | 958.4  | 0.43612    | 141.7         | 235.5         | 344.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 21     | 1001.6 | 0.449411   | 146.1         | 242.7         | 355.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 22     | 977    | 0.470551   | 152.9         | 254.1         | 371.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 29  | 23     | 873    | 0.516111   | 167.7         | 278.7         | 407.7         |                    | -                          | -                          | 24.73                      |
| 2020 | 7     | 29  | 24     | 759.2  | 0.530917   | 172.5         | 286.7         | 419.4         |                    | -                          | 17.49                      | 150.22                     |
| 2020 | 7     | 30  | 1      | 737.6  | 0.531774   | 172.8         | 287.2         | 420.1         |                    | -                          | 39.56                      | 172.50                     |
| 2020 | 7     | 30  | 2      | 723.7  | 0.506214   | 164.5         | 273.4         | 399.9         |                    | -                          | 39.66                      | 166.21                     |
| 2020 | 7     | 30  | 3      | 726.8  | 0.550515   | 178.9         | 297.3         | 434.9         |                    | -                          | 60.48                      | 198.11                     |
| 2020 | 7     | 30  | 4      | 732.7  | 0.621794   | 202.1         | 335.8         | 491.2         |                    | -                          | 93.07                      | 248.52                     |
| 2020 | 7     | 30  | 5      | 772.3  | 0.659413   | 214.3         | 356.1         | 520.9         |                    | -                          | 73.78                      | 238.64                     |
| 2020 | 7     | 30  | 6      | 826.1  | 0.704589   | 229.0         | 380.5         | 556.6         |                    | -                          | 44.38                      | 220.53                     |
| 2020 | 7     | 30  | 7      | 961.9  | 0.616621   | 200.4         | 333.0         | 487.1         |                    | -                          | -                          | 15.23                      |
| 2020 | 7     | 30  | 8      | 1070.9 | 0.553823   | 180.0         | 299.1         | 437.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 9      | 1143.6 | 0.566433   | 184.1         | 305.9         | 447.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 10     | 1155.4 | 0.621618   | 202.0         | 335.7         | 491.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 11     | 1135.2 | 0.648706   | 210.8         | 350.3         | 512.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 12     | 1139   | 0.536831   | 174.5         | 289.9         | 424.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 13     | 1164.1 | 0.471462   | 153.2         | 254.6         | 372.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 14     | 1116.3 | 0.461061   | 149.8         | 249.0         | 364.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 15     | 1104.6 | 0.518394   | 168.5         | 279.9         | 409.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 16     | 1131.4 | 0.437026   | 142.0         | 236.0         | 345.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 17     | 1138.1 | 0.529763   | 172.2         | 286.1         | 418.5         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 18     | 1056.3 | 0.430554   | 139.9         | 232.5         | 340.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 19     | 1046.5 | 0.362453   | 117.8         | 195.7         | 286.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 20     | 1013.6 | 0.249067   | 80.9          | 134.5         | 196.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 21     | 1007.2 | 0.184452   | 59.9          | 99.6          | 145.7         |                    | -                          | -                          | -                          |



| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 7     | 30  | 22     | 954.5  | 0.130562   | 42.4          | 70.5          | 103.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 23     | 855.3  | 0.145675   | 47.3          | 78.7          | 115.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 30  | 24     | 767.8  | 0.185128   | 60.2          | 100.0         | 146.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 1      | 726.6  | 0.264697   | 86.0          | 142.9         | 209.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 2      | 730.9  | 0.194504   | 63.2          | 105.0         | 153.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 3      | 711.7  | 0.233383   | 75.8          | 126.0         | 184.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 4      | 721.3  | 0.280855   | 91.3          | 151.7         | 221.9         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 5      | 742.4  | 0.361103   | 117.4         | 195.0         | 285.3         |                    | -                          | -                          | 32.87                      |
| 2020 | 7     | 31  | 6      | 779.1  | 0.341843   | 111.1         | 184.6         | 270.1         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 7      | 935.8  | 0.345045   | 112.1         | 186.3         | 272.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 8      | 1033.4 | 0.264981   | 86.1          | 143.1         | 209.3         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 9      | 1115   | 0.239007   | 77.7          | 129.1         | 188.8         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 10     | 1133.2 | 0.200863   | 65.3          | 108.5         | 158.7         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 11     | 1167.6 | 0.210649   | 68.5          | 113.8         | 166.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 12     | 1141.4 | 0.191194   | 62.1          | 103.2         | 151.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 13     | 1117.1 | 0.186348   | 60.6          | 100.6         | 147.2         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 14     | 1141.6 | 0.213162   | 69.3          | 115.1         | 168.4         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 15     | 1122.2 | 0.164554   | 53.5          | 88.9          | 130.0         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 16     | 1075.2 | 0.134915   | 43.8          | 72.9          | 106.6         |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 17     | 1056.6 | 0.105813   | 34.4          | 57.1          | 83.6          |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 18     | 984    | 0.043624   | 14.2          | 23.6          | 34.5          |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 19     | 994    | 0.025388   | 8.3           | 13.7          | 20.1          |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 20     | 942    | 0.031623   | 10.3          | 17.1          | 25.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 21     | 960.7  | 0.035901   | 11.7          | 19.4          | 28.4          |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 22     | 914.8  | 0.031675   | 10.3          | 17.1          | 25.0          |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 23     | 873.7  | 0.035674   | 11.6          | 19.3          | 28.2          |                    | -                          | -                          | -                          |
| 2020 | 7     | 31  | 24     | 802.6  | 0.029063   | 9.4           | 15.7          | 23.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 1      | 740.5  | 0.035949   | 11.7          | 19.4          | 28.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 2      | 723.4  | 0.044168   | 14.4          | 23.9          | 34.9          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 3      | 706.4  | 0.056601   | 18.4          | 30.6          | 44.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 4      | 703.3  | 0.065975   | 21.4          | 35.6          | 52.1          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 5      | 688.5  | 0.060845   | 19.8          | 32.9          | 48.1          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 6      | 692.4  | 0.067587   | 22.0          | 36.5          | 53.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 7      | 741.8  | 0.064228   | 20.9          | 34.7          | 50.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 8      | 833.7  | 0.038788   | 12.6          | 20.9          | 30.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 9      | 891    | 0.016191   | 5.3           | 8.7           | 12.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 10     | 955.3  | 0.014952   | 4.9           | 8.1           | 11.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 11     | 888.7  | 0.016248   | 5.3           | 8.8           | 12.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 12     | 909.2  | 0.027308   | 8.9           | 14.7          | 21.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 13     | 877    | 0.040204   | 13.1          | 21.7          | 31.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 14     | 927.5  | 0.038139   | 12.4          | 20.6          | 30.1          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 15     | 946.3  | 0.03043    | 9.9           | 16.4          | 24.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 16     | 943.5  | 0.049905   | 16.2          | 26.9          | 39.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 17     | 952.5  | 0.102961   | 33.5          | 55.6          | 81.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 18     | 852.1  | 0.128485   | 41.8          | 69.4          | 101.5         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load  | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|-------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 8     | 1   | 19     | 871.3 | 0.210954   | 68.6          | 113.9         | 166.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 20     | 866.7 | 0.206786   | 67.2          | 111.7         | 163.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 21     | 895.7 | 0.260751   | 84.7          | 140.8         | 206.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 22     | 821.3 | 0.276541   | 89.9          | 149.3         | 218.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 23     | 786.6 | 0.308042   | 100.1         | 166.3         | 243.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 1   | 24     | 726.1 | 0.314049   | 102.1         | 169.6         | 248.1         |                    | -                          | -                          | 12.00                      |
| 2020 | 8     | 2   | 1      | 698.1 | 0.30925    | 100.5         | 167.0         | 244.3         |                    | -                          | -                          | 36.21                      |
| 2020 | 8     | 2   | 2      | 666.1 | 0.242904   | 78.9          | 131.2         | 191.9         |                    | -                          | -                          | 15.79                      |
| 2020 | 8     | 2   | 3      | 662.8 | 0.212425   | 69.0          | 114.7         | 167.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 4      | 661.5 | 0.195564   | 63.6          | 105.6         | 154.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 5      | 661.6 | 0.255964   | 83.2          | 138.2         | 202.2         |                    | -                          | -                          | 30.61                      |
| 2020 | 8     | 2   | 6      | 647.1 | 0.352163   | 114.5         | 190.2         | 278.2         |                    | -                          | 33.07                      | 121.11                     |
| 2020 | 8     | 2   | 7      | 675.5 | 0.400591   | 130.2         | 216.3         | 316.5         |                    | -                          | 30.82                      | 130.97                     |
| 2020 | 8     | 2   | 8      | 752.2 | 0.296971   | 96.5          | 160.4         | 234.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 9      | 822   | 0.357871   | 116.3         | 193.3         | 282.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 10     | 876.2 | 0.341733   | 111.1         | 184.5         | 270.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 11     | 901.5 | 0.427386   | 138.9         | 230.8         | 337.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 12     | 918.9 | 0.500465   | 162.7         | 270.3         | 395.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 13     | 889.9 | 0.285497   | 92.8          | 154.2         | 225.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 14     | 874.6 | 0.469557   | 152.6         | 253.6         | 370.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 15     | 842.1 | 0.432983   | 140.7         | 233.8         | 342.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 16     | 846.5 | 0.411936   | 133.9         | 222.4         | 325.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 17     | 891.4 | 0.38441    | 124.9         | 207.6         | 303.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 18     | 843.3 | 0.103653   | 33.7          | 56.0          | 81.9          |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 19     | 854.3 | 0.297961   | 96.8          | 160.9         | 235.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 20     | 870.8 | 0.299994   | 97.5          | 162.0         | 237.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 21     | 880.3 | 0.394197   | 128.1         | 212.9         | 311.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 2   | 22     | 838.1 | 0.465911   | 151.4         | 251.6         | 368.1         |                    | -                          | -                          | 19.97                      |
| 2020 | 8     | 2   | 23     | 797.5 | 0.439495   | 142.8         | 237.3         | 347.2         |                    | -                          | -                          | 39.70                      |
| 2020 | 8     | 2   | 24     | 746.1 | 0.448878   | 145.9         | 242.4         | 354.6         |                    | -                          | -                          | 98.51                      |
| 2020 | 8     | 3   | 1      | 717.3 | 0.4461     | 145.0         | 240.9         | 352.4         |                    | -                          | 13.59                      | 125.12                     |
| 2020 | 8     | 3   | 2      | 703.3 | 0.351072   | 114.1         | 189.6         | 277.3         |                    | -                          | -                          | 64.05                      |
| 2020 | 8     | 3   | 3      | 687.1 | 0.384891   | 125.1         | 207.8         | 304.1         |                    | -                          | 10.74                      | 106.96                     |
| 2020 | 8     | 3   | 4      | 689.3 | 0.386103   | 125.5         | 208.5         | 305.0         |                    | -                          | 9.20                       | 105.72                     |
| 2020 | 8     | 3   | 5      | 691   | 0.40257    | 130.8         | 217.4         | 318.0         |                    | -                          | 16.39                      | 117.03                     |
| 2020 | 8     | 3   | 6      | 715.4 | 0.352249   | 114.5         | 190.2         | 278.3         |                    | -                          | -                          | 52.88                      |
| 2020 | 8     | 3   | 7      | 769.9 | 0.348238   | 113.2         | 188.0         | 275.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 8      | 854.5 | 0.339877   | 110.5         | 183.5         | 268.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 9      | 934.5 | 0.372254   | 121.0         | 201.0         | 294.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 10     | 983.7 | 0.284043   | 92.3          | 153.4         | 224.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 11     | 981.1 | 0.289297   | 94.0          | 156.2         | 228.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 12     | 950.9 | 0.327012   | 106.3         | 176.6         | 258.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 13     | 950.7 | 0.315944   | 102.7         | 170.6         | 249.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 14     | 981.8 | 0.341846   | 111.1         | 184.6         | 270.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 15     | 960.1 | 0.356467   | 115.9         | 192.5         | 281.6         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 8     | 3   | 16     | 1043.5 | 0.42698    | 138.8         | 230.6         | 337.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 17     | 1032.1 | 0.323168   | 105.0         | 174.5         | 255.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 18     | 1017.7 | 0.326047   | 106.0         | 176.1         | 257.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 19     | 968.7  | 0.328326   | 106.7         | 177.3         | 259.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 20     | 961.9  | 0.298287   | 96.9          | 161.1         | 235.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 21     | 936.7  | 0.27349    | 88.9          | 147.7         | 216.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 22     | 893.8  | 0.261979   | 85.1          | 141.5         | 207.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 23     | 803    | 0.327521   | 106.4         | 176.9         | 258.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 3   | 24     | 727.4  | 0.371027   | 120.6         | 200.4         | 293.1         |                    | -                          | -                          | 55.71                      |
| 2020 | 8     | 4   | 1      | 710.2  | 0.365757   | 118.9         | 197.5         | 288.9         |                    | -                          | -                          | 68.75                      |
| 2020 | 8     | 4   | 2      | 708.6  | 0.380953   | 123.8         | 205.7         | 301.0         |                    | -                          | -                          | 82.35                      |
| 2020 | 8     | 4   | 3      | 702.8  | 0.295225   | 95.9          | 159.4         | 233.2         |                    | -                          | -                          | 20.43                      |
| 2020 | 8     | 4   | 4      | 701.9  | 0.298267   | 96.9          | 161.1         | 235.6         |                    | -                          | -                          | 23.73                      |
| 2020 | 8     | 4   | 5      | 723.2  | 0.378535   | 123.0         | 204.4         | 299.0         |                    | -                          | -                          | 65.84                      |
| 2020 | 8     | 4   | 6      | 760.9  | 0.377361   | 122.6         | 203.8         | 298.1         |                    | -                          | -                          | 27.21                      |
| 2020 | 8     | 4   | 7      | 876.8  | 0.322985   | 105.0         | 174.4         | 255.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 8      | 1038.7 | 0.338051   | 109.9         | 182.5         | 267.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 9      | 1111.8 | 0.303134   | 98.5          | 163.7         | 239.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 10     | 1123.9 | 0.153513   | 49.9          | 82.9          | 121.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 11     | 1097.8 | 0.22235    | 72.3          | 120.1         | 175.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 12     | 1118.6 | 0.234214   | 76.1          | 126.5         | 185.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 13     | 1106.4 | 0.163715   | 53.2          | 88.4          | 129.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 14     | 1117.7 | 0.231907   | 75.4          | 125.2         | 183.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 15     | 1078   | 0.257      | 83.5          | 138.8         | 203.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 16     | 1127   | 0.229835   | 74.7          | 124.1         | 181.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 17     | 1157.3 | 0.188963   | 61.4          | 102.0         | 149.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 18     | 1040.2 | 0.184778   | 60.1          | 99.8          | 146.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 19     | 1033.6 | 0.155204   | 50.4          | 83.8          | 122.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 20     | 997.2  | 0.176566   | 57.4          | 95.3          | 139.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 21     | 970.2  | 0.224596   | 73.0          | 121.3         | 177.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 22     | 914.6  | 0.188712   | 61.3          | 101.9         | 149.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 23     | 883.5  | 0.15789    | 51.3          | 85.3          | 124.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 4   | 24     | 789.3  | 0.136255   | 44.3          | 73.6          | 107.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 1      | 739.2  | 0.14864    | 48.3          | 80.3          | 117.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 2      | 713    | 0.151098   | 49.1          | 81.6          | 119.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 3      | 710.9  | 0.163383   | 53.1          | 88.2          | 129.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 4      | 710.8  | 0.176217   | 57.3          | 95.2          | 139.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 5      | 744.1  | 0.208285   | 67.7          | 112.5         | 164.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 6      | 814.7  | 0.257209   | 83.6          | 138.9         | 203.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 7      | 933.4  | 0.273018   | 88.7          | 147.4         | 215.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 8      | 1029.6 | 0.274435   | 89.2          | 148.2         | 216.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 9      | 1146.9 | 0.34283    | 111.4         | 185.1         | 270.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 10     | 1170   | 0.369358   | 120.0         | 199.5         | 291.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 11     | 1192.5 | 0.327355   | 106.4         | 176.8         | 258.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 12     | 1205.5 | 0.290579   | 94.4          | 156.9         | 229.6         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 8     | 5   | 13     | 1212.1 | 0.324048   | 105.3         | 175.0         | 256.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 14     | 1199.9 | 0.369724   | 120.2         | 199.7         | 292.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 15     | 1202.8 | 0.395528   | 128.5         | 213.6         | 312.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 16     | 1222   | 0.336563   | 109.4         | 181.7         | 265.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 17     | 1204.9 | 0.249372   | 81.0          | 134.7         | 197.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 18     | 1168.7 | 0.148287   | 48.2          | 80.1          | 117.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 19     | 1145.5 | 0.111002   | 36.1          | 59.9          | 87.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 20     | 1029.3 | 0.104834   | 34.1          | 56.6          | 82.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 21     | 1029.8 | 0.113439   | 36.9          | 61.3          | 89.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 22     | 1007.8 | 0.10619    | 34.5          | 57.3          | 83.9          |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 23     | 930.4  | 0.122516   | 39.8          | 66.2          | 96.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 5   | 24     | 803.3  | 0.13193    | 42.9          | 71.2          | 104.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 1      | 756    | 0.199977   | 65.0          | 108.0         | 158.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 2      | 732.8  | 0.211729   | 68.8          | 114.3         | 167.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 3      | 724.2  | 0.225483   | 73.3          | 121.8         | 178.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 4      | 729.8  | 0.18872    | 61.3          | 101.9         | 149.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 5      | 760.9  | 0.189959   | 61.7          | 102.6         | 150.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 6      | 839.3  | 0.140049   | 45.5          | 75.6          | 110.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 7      | 986.6  | 0.113698   | 37.0          | 61.4          | 89.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 8      | 1136   | 0.093705   | 30.5          | 50.6          | 74.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 9      | 1257.8 | 0.123365   | 40.1          | 66.6          | 97.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 10     | 1165.7 | 0.121184   | 39.4          | 65.4          | 95.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 11     | 1199.4 | 0.131945   | 42.9          | 71.3          | 104.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 12     | 1241   | 0.09949    | 32.3          | 53.7          | 78.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 13     | 1274.8 | 0.099567   | 32.4          | 53.8          | 78.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 14     | 1248.3 | 0.081484   | 26.5          | 44.0          | 64.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 15     | 1222.4 | 0.088562   | 28.8          | 47.8          | 70.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 16     | 1289.6 | 0.09176    | 29.8          | 49.6          | 72.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 17     | 1309.4 | 0.101695   | 33.1          | 54.9          | 80.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 18     | 1180.6 | 0.098401   | 32.0          | 53.1          | 77.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 19     | 1161.3 | 0.096575   | 31.4          | 52.2          | 76.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 20     | 1162   | 0.09709    | 31.6          | 52.4          | 76.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 21     | 1159.2 | 0.157726   | 51.3          | 85.2          | 124.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 22     | 1028   | 0.144237   | 46.9          | 77.9          | 113.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 23     | 914.9  | 0.175126   | 56.9          | 94.6          | 138.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 6   | 24     | 806.4  | 0.19088    | 62.0          | 103.1         | 150.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 1      | 761.4  | 0.19995    | 65.0          | 108.0         | 158.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 2      | 736.5  | 0.209438   | 68.1          | 113.1         | 165.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 3      | 743.3  | 0.202706   | 65.9          | 109.5         | 160.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 4      | 744.1  | 0.196001   | 63.7          | 105.8         | 154.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 5      | 760.7  | 0.177151   | 57.6          | 95.7          | 139.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 6      | 806.1  | 0.19163    | 62.3          | 103.5         | 151.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 7      | 952.8  | 0.138789   | 45.1          | 74.9          | 109.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 8      | 1085   | 0.160838   | 52.3          | 86.9          | 127.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 9      | 1203.2 | 0.150781   | 49.0          | 81.4          | 119.1         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 8     | 7   | 10     | 1294.6 | 0.099043   | 32.2          | 53.5          | 78.2          |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 11     | 1270.6 | 0.079617   | 25.9          | 43.0          | 62.9          |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 12     | 1282.9 | 0.06429    | 20.9          | 34.7          | 50.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 13     | 1293.7 | 0.088441   | 28.7          | 47.8          | 69.9          |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 14     | 1281.2 | 0.085896   | 27.9          | 46.4          | 67.9          |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 15     | 1259.9 | 0.120455   | 39.1          | 65.0          | 95.2          |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 16     | 1246.5 | 0.163199   | 53.0          | 88.1          | 128.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 17     | 1215.4 | 0.170538   | 55.4          | 92.1          | 134.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 18     | 1082.8 | 0.223997   | 72.8          | 121.0         | 177.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 19     | 1069.3 | 0.251218   | 81.6          | 135.7         | 198.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 20     | 1071.5 | 0.202453   | 65.8          | 109.3         | 159.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 21     | 1035.3 | 0.172334   | 56.0          | 93.1          | 136.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 22     | 996    | 0.167617   | 54.5          | 90.5          | 132.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 23     | 889.6  | 0.168026   | 54.6          | 90.7          | 132.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 7   | 24     | 798.8  | 0.157283   | 51.1          | 84.9          | 124.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 1      | 760.9  | 0.168469   | 54.8          | 91.0          | 133.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 2      | 722.7  | 0.270007   | 87.8          | 145.8         | 213.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 3      | 698.1  | 0.344799   | 112.1         | 186.2         | 272.4         |                    | -                          | -                          | 64.29                      |
| 2020 | 8     | 8   | 4      | 699.9  | 0.398199   | 129.4         | 215.0         | 314.6         |                    | -                          | 5.13                       | 104.68                     |
| 2020 | 8     | 8   | 5      | 689.3  | 0.400609   | 130.2         | 216.3         | 316.5         |                    | -                          | 17.03                      | 117.18                     |
| 2020 | 8     | 8   | 6      | 698.7  | 0.433048   | 140.7         | 233.8         | 342.1         |                    | -                          | 25.15                      | 133.41                     |
| 2020 | 8     | 8   | 7      | 762.9  | 0.539784   | 175.4         | 291.5         | 426.4         |                    | -                          | 18.58                      | 153.53                     |
| 2020 | 8     | 8   | 8      | 874.3  | 0.602953   | 196.0         | 325.6         | 476.3         |                    | -                          | -                          | 92.03                      |
| 2020 | 8     | 8   | 9      | 1009.7 | 0.630617   | 205.0         | 340.5         | 498.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 10     | 1005.6 | 0.620813   | 201.8         | 335.2         | 490.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 11     | 1008.1 | 0.583421   | 189.6         | 315.0         | 460.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 12     | 966    | 0.577673   | 187.7         | 311.9         | 456.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 13     | 989.8  | 0.480895   | 156.3         | 259.7         | 379.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 14     | 946.8  | 0.371127   | 120.6         | 200.4         | 293.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 15     | 938.3  | 0.261437   | 85.0          | 141.2         | 206.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 16     | 962.4  | 0.219822   | 71.4          | 118.7         | 173.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 17     | 966.9  | 0.231971   | 75.4          | 125.3         | 183.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 18     | 937.9  | 0.343674   | 111.7         | 185.6         | 271.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 19     | 886.1  | 0.421419   | 137.0         | 227.6         | 332.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 20     | 860.8  | 0.347759   | 113.0         | 187.8         | 274.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 21     | 859.7  | 0.325718   | 105.9         | 175.9         | 257.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 22     | 891.7  | 0.336627   | 109.4         | 181.8         | 265.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 23     | 843    | 0.25113    | 81.6          | 135.6         | 198.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 8   | 24     | 760.7  | 0.13188    | 42.9          | 71.2          | 104.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 1      | 746.1  | 0.125999   | 40.9          | 68.0          | 99.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 2      | 715.2  | 0.160395   | 52.1          | 86.6          | 126.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 3      | 701    | 0.208323   | 67.7          | 112.5         | 164.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 4      | 702.5  | 0.25342    | 82.4          | 136.8         | 200.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 5      | 691.7  | 0.229075   | 74.4          | 123.7         | 181.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 6      | 666.6  | 0.325962   | 105.9         | 176.0         | 257.5         |                    | -                          | -                          | 80.91                      |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 8     | 9   | 7      | 705.3  | 0.285343   | 92.7          | 154.1         | 225.4         |                    | -                          | -                          | 10.12                      |
| 2020 | 8     | 9   | 8      | 784.8  | 0.285203   | 92.7          | 154.0         | 225.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 9      | 878.7  | 0.230194   | 74.8          | 124.3         | 181.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 10     | 943.7  | 0.23021    | 74.8          | 124.3         | 181.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 11     | 941.9  | 0.298032   | 96.9          | 160.9         | 235.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 12     | 947.1  | 0.241861   | 78.6          | 130.6         | 191.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 13     | 904.6  | 0.202158   | 65.7          | 109.2         | 159.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 14     | 878.2  | 0.156254   | 50.8          | 84.4          | 123.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 15     | 897.7  | 0.133401   | 43.4          | 72.0          | 105.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 16     | 949.6  | 0.134932   | 43.9          | 72.9          | 106.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 17     | 951.1  | 0.124454   | 40.4          | 67.2          | 98.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 18     | 880.1  | 0.128984   | 41.9          | 69.7          | 101.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 19     | 871.9  | 0.113706   | 37.0          | 61.4          | 89.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 20     | 896.4  | 0.092684   | 30.1          | 50.0          | 73.2          |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 21     | 967    | 0.100743   | 32.7          | 54.4          | 79.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 22     | 901    | 0.118955   | 38.7          | 64.2          | 94.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 23     | 816.2  | 0.085402   | 27.8          | 46.1          | 67.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 9   | 24     | 735.8  | 0.111493   | 36.2          | 60.2          | 88.1          |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 1      | 713.9  | 0.114309   | 37.2          | 61.7          | 90.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 2      | 701.9  | 0.11899    | 38.7          | 64.3          | 94.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 3      | 687.4  | 0.106684   | 34.7          | 57.6          | 84.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 4      | 691.7  | 0.117681   | 38.2          | 63.5          | 93.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 5      | 713    | 0.130498   | 42.4          | 70.5          | 103.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 6      | 772.3  | 0.10376    | 33.7          | 56.0          | 82.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 7      | 926.6  | 0.13749    | 44.7          | 74.2          | 108.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 8      | 1020.4 | 0.222035   | 72.2          | 119.9         | 175.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 9      | 1089.9 | 0.305891   | 99.4          | 165.2         | 241.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 10     | 1124.2 | 0.347513   | 112.9         | 187.7         | 274.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 11     | 1135.5 | 0.326275   | 106.0         | 176.2         | 257.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 12     | 1157.6 | 0.361971   | 117.6         | 195.5         | 286.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 13     | 1131.7 | 0.315129   | 102.4         | 170.2         | 249.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 14     | 1114.6 | 0.338806   | 110.1         | 183.0         | 267.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 15     | 1126   | 0.333409   | 108.4         | 180.0         | 263.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 16     | 1128.3 | 0.349664   | 113.6         | 188.8         | 276.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 17     | 1174   | 0.336229   | 109.3         | 181.6         | 265.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 18     | 1096.1 | 0.366642   | 119.2         | 198.0         | 289.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 19     | 1034.1 | 0.469815   | 152.7         | 253.7         | 371.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 20     | 1102   | 0.541641   | 176.0         | 292.5         | 427.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 21     | 1044.4 | 0.42905    | 139.4         | 231.7         | 338.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 22     | 953.3  | 0.449886   | 146.2         | 242.9         | 355.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 23     | 874.8  | 0.46645    | 151.6         | 251.9         | 368.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 10  | 24     | 770.2  | 0.393887   | 128.0         | 212.7         | 311.2         |                    | -                          | -                          | 30.97                      |
| 2020 | 8     | 11  | 1      | 740.2  | 0.297126   | 96.6          | 160.4         | 234.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 2      | 725.2  | 0.279832   | 90.9          | 151.1         | 221.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 3      | 714.8  | 0.266444   | 86.6          | 143.9         | 210.5         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 8     | 11  | 4      | 725.2  | 0.233357   | 75.8          | 126.0         | 184.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 5      | 738.7  | 0.27699    | 90.0          | 149.6         | 218.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 6      | 809.9  | 0.250084   | 81.3          | 135.0         | 197.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 7      | 954.6  | 0.196526   | 63.9          | 106.1         | 155.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 8      | 1091   | 0.190617   | 62.0          | 102.9         | 150.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 9      | 1196.8 | 0.117145   | 38.1          | 63.3          | 92.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 10     | 1189.4 | 0.109612   | 35.6          | 59.2          | 86.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 11     | 1221.3 | 0.032462   | 10.6          | 17.5          | 25.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 12     | 1201.2 | 0.034232   | 11.1          | 18.5          | 27.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 13     | 1187.5 | 0.015227   | 4.9           | 8.2           | 12.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 14     | 1236.6 | 0.022199   | 7.2           | 12.0          | 17.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 15     | 1231.4 | 0.015648   | 5.1           | 8.5           | 12.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 16     | 1308.3 | 0.020744   | 6.7           | 11.2          | 16.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 17     | 1223.2 | 0.016311   | 5.3           | 8.8           | 12.9          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 18     | 1134.1 | 0.020295   | 6.6           | 11.0          | 16.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 19     | 1118.1 | 0.032988   | 10.7          | 17.8          | 26.1          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 20     | 1123.2 | 0.048203   | 15.7          | 26.0          | 38.1          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 21     | 1117.4 | 0.073177   | 23.8          | 39.5          | 57.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 22     | 1055.5 | 0.086955   | 28.3          | 47.0          | 68.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 23     | 914.2  | 0.121426   | 39.5          | 65.6          | 95.9          |                    | -                          | -                          | -                          |
| 2020 | 8     | 11  | 24     | 822.2  | 0.131624   | 42.8          | 71.1          | 104.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 1      | 754.3  | 0.196298   | 63.8          | 106.0         | 155.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 2      | 740.5  | 0.154925   | 50.4          | 83.7          | 122.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 3      | 734.1  | 0.134131   | 43.6          | 72.4          | 106.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 4      | 747.2  | 0.123988   | 40.3          | 67.0          | 98.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 5      | 768.1  | 0.099415   | 32.3          | 53.7          | 78.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 6      | 823.5  | 0.11552    | 37.5          | 62.4          | 91.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 7      | 980.6  | 0.122786   | 39.9          | 66.3          | 97.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 8      | 1098.6 | 0.145985   | 47.4          | 78.8          | 115.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 9      | 1189.1 | 0.170649   | 55.5          | 92.2          | 134.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 10     | 1219.1 | 0.142176   | 46.2          | 76.8          | 112.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 11     | 1280.8 | 0.105808   | 34.4          | 57.1          | 83.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 12     | 1272.3 | 0.056179   | 18.3          | 30.3          | 44.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 13     | 1176.8 | 0.066282   | 21.5          | 35.8          | 52.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 14     | 1207.2 | 0.111848   | 36.4          | 60.4          | 88.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 15     | 1188   | 0.102744   | 33.4          | 55.5          | 81.2          |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 16     | 1212.5 | 0.089536   | 29.1          | 48.3          | 70.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 17     | 1193.2 | 0.05639    | 18.3          | 30.5          | 44.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 18     | 1107.2 | 0.086473   | 28.1          | 46.7          | 68.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 19     | 1072.8 | 0.099754   | 32.4          | 53.9          | 78.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 20     | 1035.6 | 0.112689   | 36.6          | 60.9          | 89.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 21     | 1036.9 | 0.159584   | 51.9          | 86.2          | 126.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 22     | 968.3  | 0.16796    | 54.6          | 90.7          | 132.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 23     | 861.3  | 0.163735   | 53.2          | 88.4          | 129.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 12  | 24     | 779.5  | 0.161958   | 52.6          | 87.5          | 127.9         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 8     | 13  | 1      | 733    | 0.162454   | 52.8          | 87.7          | 128.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 2      | 714.6  | 0.126439   | 41.1          | 68.3          | 99.9          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 3      | 706.6  | 0.153598   | 49.9          | 82.9          | 121.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 4      | 708.6  | 0.16563    | 53.8          | 89.4          | 130.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 5      | 732.8  | 0.16196    | 52.6          | 87.5          | 127.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 6      | 786.8  | 0.156366   | 50.8          | 84.4          | 123.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 7      | 919.4  | 0.087874   | 28.6          | 47.5          | 69.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 8      | 1064.6 | 0.047175   | 15.3          | 25.5          | 37.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 9      | 1139.6 | 0.04079    | 13.3          | 22.0          | 32.2          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 10     | 1109.8 | 0.054125   | 17.6          | 29.2          | 42.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 11     | 1111.4 | 0.052659   | 17.1          | 28.4          | 41.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 12     | 1101.6 | 0.05797    | 18.8          | 31.3          | 45.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 13     | 1075.7 | 0.098017   | 31.9          | 52.9          | 77.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 14     | 1083.9 | 0.096632   | 31.4          | 52.2          | 76.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 15     | 1129.3 | 0.082762   | 26.9          | 44.7          | 65.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 16     | 1063.6 | 0.068111   | 22.1          | 36.8          | 53.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 17     | 1059.3 | 0.032464   | 10.6          | 17.5          | 25.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 18     | 1025.1 | 0.016232   | 5.3           | 8.8           | 12.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 19     | 996.2  | 0.024864   | 8.1           | 13.4          | 19.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 20     | 969.4  | 0.032292   | 10.5          | 17.4          | 25.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 21     | 999.8  | 0.041465   | 13.5          | 22.4          | 32.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 22     | 955.4  | 0.065728   | 21.4          | 35.5          | 51.9          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 23     | 879.7  | 0.092719   | 30.1          | 50.1          | 73.2          |                    | -                          | -                          | -                          |
| 2020 | 8     | 13  | 24     | 772.7  | 0.128635   | 41.8          | 69.5          | 101.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 1      | 719.6  | 0.147405   | 47.9          | 79.6          | 116.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 2      | 710.9  | 0.17125    | 55.7          | 92.5          | 135.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 3      | 698.4  | 0.204215   | 66.4          | 110.3         | 161.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 4      | 706.6  | 0.212581   | 69.1          | 114.8         | 167.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 5      | 710.9  | 0.21197    | 68.9          | 114.5         | 167.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 6      | 760.7  | 0.193188   | 62.8          | 104.3         | 152.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 7      | 896    | 0.177334   | 57.6          | 95.8          | 140.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 8      | 1027.8 | 0.108245   | 35.2          | 58.5          | 85.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 9      | 1120.5 | 0.114419   | 37.2          | 61.8          | 90.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 10     | 1151.5 | 0.104833   | 34.1          | 56.6          | 82.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 11     | 1153.4 | 0.146077   | 47.5          | 78.9          | 115.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 12     | 1145.8 | 0.159402   | 51.8          | 86.1          | 125.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 13     | 1142.5 | 0.173879   | 56.5          | 93.9          | 137.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 14     | 1113.7 | 0.157884   | 51.3          | 85.3          | 124.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 15     | 1079.7 | 0.143562   | 46.7          | 77.5          | 113.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 16     | 1084.4 | 0.133827   | 43.5          | 72.3          | 105.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 17     | 1045.7 | 0.145457   | 47.3          | 78.5          | 114.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 18     | 979.6  | 0.100021   | 32.5          | 54.0          | 79.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 19     | 963.6  | 0.203197   | 66.0          | 109.7         | 160.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 20     | 930.7  | 0.20779    | 67.5          | 112.2         | 164.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 21     | 974.8  | 0.230249   | 74.8          | 124.3         | 181.9         |                    | -                          | -                          | -                          |



| Year | Month | Day | Period | Load  | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|-------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 8     | 14  | 22     | 899.1 | 0.201848   | 65.6          | 109.0         | 159.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 23     | 861.3 | 0.152186   | 49.5          | 82.2          | 120.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 14  | 24     | 754.5 | 0.122978   | 40.0          | 66.4          | 97.2          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 1      | 712.9 | 0.089056   | 28.9          | 48.1          | 70.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 2      | 687.9 | 0.060481   | 19.7          | 32.7          | 47.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 3      | 675.9 | 0.034225   | 11.1          | 18.5          | 27.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 4      | 677.4 | 0.032125   | 10.4          | 17.3          | 25.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 5      | 675.9 | 0.073952   | 24.0          | 39.9          | 58.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 6      | 701.9 | 0.054562   | 17.7          | 29.5          | 43.1          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 7      | 758   | 0.044349   | 14.4          | 23.9          | 35.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 8      | 856.9 | 0.05086    | 16.5          | 27.5          | 40.2          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 9      | 938.9 | 0.037524   | 12.2          | 20.3          | 29.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 10     | 963.1 | 0.044919   | 14.6          | 24.3          | 35.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 11     | 997.7 | 0.15924    | 51.8          | 86.0          | 125.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 12     | 935.6 | 0.168901   | 54.9          | 91.2          | 133.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 13     | 959.4 | 0.086699   | 28.2          | 46.8          | 68.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 14     | 944.5 | 0.056279   | 18.3          | 30.4          | 44.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 15     | 950.2 | 0.067886   | 22.1          | 36.7          | 53.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 16     | 957.5 | 0.090504   | 29.4          | 48.9          | 71.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 17     | 948.4 | 0.078709   | 25.6          | 42.5          | 62.2          |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 18     | 917.1 | 0.144644   | 47.0          | 78.1          | 114.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 19     | 898.2 | 0.19544    | 63.5          | 105.5         | 154.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 20     | 902.8 | 0.24551    | 79.8          | 132.6         | 194.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 21     | 908.4 | 0.31919    | 103.7         | 172.4         | 252.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 22     | 867.5 | 0.401922   | 130.6         | 217.0         | 317.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 23     | 824.3 | 0.383583   | 124.7         | 207.1         | 303.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 15  | 24     | 754.5 | 0.423561   | 137.7         | 228.7         | 334.6         |                    | -                          | -                          | 70.11                      |
| 2020 | 8     | 16  | 1      | 728.8 | 0.396383   | 128.8         | 214.0         | 313.1         |                    | -                          | -                          | 74.34                      |
| 2020 | 8     | 16  | 2      | 706.6 | 0.403009   | 131.0         | 217.6         | 318.4         |                    | -                          | 1.03                       | 101.78                     |
| 2020 | 8     | 16  | 3      | 695.9 | 0.351099   | 114.1         | 189.6         | 277.4         |                    | -                          | -                          | 71.47                      |
| 2020 | 8     | 16  | 4      | 682.4 | 0.329732   | 107.2         | 178.1         | 260.5         |                    | -                          | -                          | 68.09                      |
| 2020 | 8     | 16  | 5      | 669.2 | 0.325032   | 105.6         | 175.5         | 256.8         |                    | -                          | -                          | 77.58                      |
| 2020 | 8     | 16  | 6      | 672.1 | 0.235456   | 76.5          | 127.1         | 186.0         |                    | -                          | -                          | 3.91                       |
| 2020 | 8     | 16  | 7      | 701.9 | 0.173583   | 56.4          | 93.7          | 137.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 8      | 811.2 | 0.152702   | 49.6          | 82.5          | 120.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 9      | 870.9 | 0.117777   | 38.3          | 63.6          | 93.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 10     | 921.4 | 0.1698     | 55.2          | 91.7          | 134.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 11     | 943.8 | 0.239432   | 77.8          | 129.3         | 189.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 12     | 942.7 | 0.268386   | 87.2          | 144.9         | 212.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 13     | 897.9 | 0.276619   | 89.9          | 149.4         | 218.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 14     | 866.5 | 0.202308   | 65.8          | 109.2         | 159.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 15     | 886   | 0.169456   | 55.1          | 91.5          | 133.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 16     | 920.2 | 0.175011   | 56.9          | 94.5          | 138.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 17     | 938.5 | 0.189627   | 61.6          | 102.4         | 149.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 18     | 964.8 | 0.205638   | 66.8          | 111.0         | 162.5         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 8     | 16  | 19     | 939.6  | 0.137181   | 44.6          | 74.1          | 108.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 20     | 961.7  | 0.131721   | 42.8          | 71.1          | 104.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 21     | 937.3  | 0.250605   | 81.4          | 135.3         | 198.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 22     | 904.7  | 0.196257   | 63.8          | 106.0         | 155.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 23     | 791.4  | 0.222601   | 72.3          | 120.2         | 175.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 16  | 24     | 725.7  | 0.260748   | 84.7          | 140.8         | 206.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 1      | 701.9  | 0.378244   | 122.9         | 204.3         | 298.8         |                    | -                          | -                          | 86.91                      |
| 2020 | 8     | 17  | 2      | 700.9  | 0.431641   | 140.3         | 233.1         | 341.0         |                    | -                          | 22.19                      | 130.10                     |
| 2020 | 8     | 17  | 3      | 687.1  | 0.442704   | 143.9         | 239.1         | 349.7         |                    | -                          | 41.96                      | 152.64                     |
| 2020 | 8     | 17  | 4      | 695.9  | 0.358896   | 116.6         | 193.8         | 283.5         |                    | -                          | -                          | 77.63                      |
| 2020 | 8     | 17  | 5      | 707.9  | 0.287998   | 93.6          | 155.5         | 227.5         |                    | -                          | -                          | 9.62                       |
| 2020 | 8     | 17  | 6      | 769.9  | 0.370462   | 120.4         | 200.0         | 292.7         |                    | -                          | -                          | 12.76                      |
| 2020 | 8     | 17  | 7      | 910.4  | 0.304007   | 98.8          | 164.2         | 240.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 8      | 1052.1 | 0.186204   | 60.5          | 100.6         | 147.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 9      | 1136.5 | 0.204047   | 66.3          | 110.2         | 161.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 10     | 1144.8 | 0.198539   | 64.5          | 107.2         | 156.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 11     | 1153.8 | 0.228087   | 74.1          | 123.2         | 180.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 12     | 1143.8 | 0.216414   | 70.3          | 116.9         | 171.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 13     | 1121.8 | 0.186291   | 60.5          | 100.6         | 147.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 14     | 1128.7 | 0.156373   | 50.8          | 84.4          | 123.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 15     | 1137.6 | 0.189591   | 61.6          | 102.4         | 149.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 16     | 1159.7 | 0.189505   | 61.6          | 102.3         | 149.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 17     | 1156.7 | 0.075195   | 24.4          | 40.6          | 59.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 18     | 1112.2 | 0.045103   | 14.7          | 24.4          | 35.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 19     | 1050.4 | 0.045364   | 14.7          | 24.5          | 35.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 20     | 1048.5 | 0.024926   | 8.1           | 13.5          | 19.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 21     | 1020.1 | 0.07798    | 25.3          | 42.1          | 61.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 22     | 949.3  | 0.16453    | 53.5          | 88.8          | 130.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 23     | 848    | 0.169935   | 55.2          | 91.8          | 134.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 17  | 24     | 762.7  | 0.233556   | 75.9          | 126.1         | 184.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 1      | 726.1  | 0.237677   | 77.2          | 128.3         | 187.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 2      | 719.6  | 0.225263   | 73.2          | 121.6         | 178.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 3      | 721.9  | 0.252522   | 82.1          | 136.4         | 199.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 4      | 723.5  | 0.271903   | 88.4          | 146.8         | 214.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 5      | 735.9  | 0.254405   | 82.7          | 137.4         | 201.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 6      | 816.8  | 0.243262   | 79.1          | 131.4         | 192.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 7      | 953.9  | 0.223014   | 72.5          | 120.4         | 176.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 8      | 1116   | 0.156194   | 50.8          | 84.3          | 123.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 9      | 1244.4 | 0.128556   | 41.8          | 69.4          | 101.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 10     | 1271.5 | 0.155363   | 50.5          | 83.9          | 122.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 11     | 1183   | 0.19035    | 61.9          | 102.8         | 150.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 12     | 1293.3 | 0.246398   | 80.1          | 133.1         | 194.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 13     | 1276.1 | 0.215653   | 70.1          | 116.5         | 170.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 14     | 1218.1 | 0.268227   | 87.2          | 144.8         | 211.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 18  | 15     | 1290.2 | 0.230591   | 74.9          | 124.5         | 182.2         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 8     | 18  | 16     | 1320.6 | 0.245653      | 79.8             | 132.7            | 194.1            |                       | -                             | -                             | -                             |
| 2020 | 8     | 18  | 17     | 1249.3 | 0.258816      | 84.1             | 139.8            | 204.5            |                       | -                             | -                             | -                             |
| 2020 | 8     | 18  | 18     | 1179.3 | 0.342105      | 111.2            | 184.7            | 270.3            |                       | -                             | -                             | -                             |
| 2020 | 8     | 18  | 19     | 1133.7 | 0.395785      | 128.6            | 213.7            | 312.7            |                       | -                             | -                             | -                             |
| 2020 | 8     | 18  | 20     | 1105.2 | 0.430274      | 139.8            | 232.3            | 339.9            |                       | -                             | -                             | -                             |
| 2020 | 8     | 18  | 21     | 1069   | 0.443658      | 144.2            | 239.6            | 350.5            |                       | -                             | -                             | -                             |
| 2020 | 8     | 18  | 22     | 988.4  | 0.427369      | 138.9            | 230.8            | 337.6            |                       | -                             | -                             | -                             |
| 2020 | 8     | 18  | 23     | 884.2  | 0.403436      | 131.1            | 217.9            | 318.7            |                       | -                             | -                             | -                             |
| 2020 | 8     | 18  | 24     | 818.2  | 0.418181      | 135.9            | 225.8            | 330.4            |                       | -                             | -                             | 2.16                          |
| 2020 | 8     | 19  | 1      | 768.1  | 0.412654      | 134.1            | 222.8            | 326.0            |                       | -                             | -                             | 47.90                         |
| 2020 | 8     | 19  | 2      | 743.5  | 0.384297      | 124.9            | 207.5            | 303.6            |                       | -                             | -                             | 50.09                         |
| 2020 | 8     | 19  | 3      | 741.9  | 0.348434      | 113.2            | 188.2            | 275.3            |                       | -                             | -                             | 23.36                         |
| 2020 | 8     | 19  | 4      | 738.4  | 0.331447      | 107.7            | 179.0            | 261.8            |                       | -                             | -                             | 13.44                         |
| 2020 | 8     | 19  | 5      | 761.5  | 0.316602      | 102.9            | 171.0            | 250.1            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 6      | 822.2  | 0.301895      | 98.1             | 163.0            | 238.5            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 7      | 975.7  | 0.267264      | 86.9             | 144.3            | 211.1            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 8      | 1164.6 | 0.218919      | 71.1             | 118.2            | 172.9            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 9      | 1216.8 | 0.227758      | 74.0             | 123.0            | 179.9            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 10     | 1211.7 | 0.228435      | 74.2             | 123.4            | 180.5            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 11     | 1269.2 | 0.228103      | 74.1             | 123.2            | 180.2            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 12     | 1261.4 | 0.207092      | 67.3             | 111.8            | 163.6            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 13     | 1271.9 | 0.236152      | 76.7             | 127.5            | 186.6            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 14     | 1288.4 | 0.232602      | 75.6             | 125.6            | 183.8            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 15     | 1260.4 | 0.221518      | 72.0             | 119.6            | 175.0            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 16     | 1257.1 | 0.249688      | 81.1             | 134.8            | 197.3            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 17     | 1243.7 | 0.213981      | 69.5             | 115.5            | 169.0            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 18     | 1099.9 | 0.182604      | 59.3             | 98.6             | 144.3            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 19     | 1073.5 | 0.226659      | 73.7             | 122.4            | 179.1            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 20     | 1073   | 0.216792      | 70.5             | 117.1            | 171.3            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 21     | 1066.9 | 0.290558      | 94.4             | 156.9            | 229.5            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 22     | 1009.4 | 0.338394      | 110.0            | 182.7            | 267.3            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 23     | 902.5  | 0.358826      | 116.6            | 193.8            | 283.5            |                       | -                             | -                             | -                             |
| 2020 | 8     | 19  | 24     | 813    | 0.385658      | 125.3            | 208.3            | 304.7            |                       | -                             | -                             | -                             |
| 2020 | 8     | 20  | 1      | 774.2  | 0.367674      | 119.5            | 198.5            | 290.5            |                       | -                             | -                             | 6.26                          |
| 2020 | 8     | 20  | 2      | 753.5  | 0.358109      | 116.4            | 193.4            | 282.9            |                       | -                             | -                             | 19.41                         |
| 2020 | 8     | 20  | 3      | 731.2  | 0.319449      | 103.8            | 172.5            | 252.4            |                       | -                             | -                             | 11.16                         |
| 2020 | 8     | 20  | 4      | 742.9  | 0.331464      | 107.7            | 179.0            | 261.9            |                       | -                             | -                             | 8.96                          |
| 2020 | 8     | 20  | 5      | 773    | 0.295788      | 96.1             | 159.7            | 233.7            |                       | -                             | -                             | -                             |
| 2020 | 8     | 20  | 6      | 819.7  | 0.318512      | 103.5            | 172.0            | 251.6            |                       | -                             | -                             | -                             |
| 2020 | 8     | 20  | 7      | 957.2  | 0.327731      | 106.5            | 177.0            | 258.9            |                       | -                             | -                             | -                             |
| 2020 | 8     | 20  | 8      | 1103.3 | 0.332593      | 108.1            | 179.6            | 262.7            |                       | -                             | -                             | -                             |
| 2020 | 8     | 20  | 9      | 1181.7 | 0.328732      | 106.8            | 177.5            | 259.7            |                       | -                             | -                             | -                             |
| 2020 | 8     | 20  | 10     | 1232.2 | 0.334675      | 108.8            | 180.7            | 264.4            |                       | -                             | -                             | -                             |
| 2020 | 8     | 20  | 11     | 1209   | 0.419286      | 136.3            | 226.4            | 331.2            |                       | -                             | -                             | -                             |
| 2020 | 8     | 20  | 12     | 1264.2 | 0.347632      | 113.0            | 187.7            | 274.6            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 8     | 20  | 13     | 1303.9 | 0.249577   | 81.1          | 134.8         | 197.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 20  | 14     | 1226.1 | 0.245334   | 79.7          | 132.5         | 193.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 20  | 15     | 1229.1 | 0.223131   | 72.5          | 120.5         | 176.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 20  | 16     | 1190.4 | 0.188561   | 61.3          | 101.8         | 149.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 20  | 17     | 1175.2 | 0.214202   | 69.6          | 115.7         | 169.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 20  | 18     | 1093.5 | 0.213561   | 69.4          | 115.3         | 168.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 20  | 19     | 1072.5 | 0.312106   | 101.4         | 168.5         | 246.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 20  | 20     | 1073.9 | 0.399101   | 129.7         | 215.5         | 315.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 20  | 21     | 1049.7 | 0.410359   | 133.4         | 221.6         | 324.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 20  | 22     | 995.4  | 0.401271   | 130.4         | 216.7         | 317.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 20  | 23     | 888.6  | 0.379807   | 123.4         | 205.1         | 300.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 20  | 24     | 799.6  | 0.389902   | 126.7         | 210.5         | 308.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 1      | 759.8  | 0.409145   | 133.0         | 220.9         | 323.2         |                    | -                          | -                          | 53.42                      |
| 2020 | 8     | 21  | 2      | 735    | 0.338696   | 110.1         | 182.9         | 267.6         |                    | -                          | -                          | 22.57                      |
| 2020 | 8     | 21  | 3      | 721.9  | 0.300525   | 97.7          | 162.3         | 237.4         |                    | -                          | -                          | 5.51                       |
| 2020 | 8     | 21  | 4      | 728.6  | 0.310071   | 100.8         | 167.4         | 245.0         |                    | -                          | -                          | 6.36                       |
| 2020 | 8     | 21  | 5      | 745    | 0.344832   | 112.1         | 186.2         | 272.4         |                    | -                          | -                          | 17.42                      |
| 2020 | 8     | 21  | 6      | 790.5  | 0.323712   | 105.2         | 174.8         | 255.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 7      | 935.1  | 0.240053   | 78.0          | 129.6         | 189.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 8      | 1093   | 0.20645    | 67.1          | 111.5         | 163.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 9      | 1202.1 | 0.162184   | 52.7          | 87.6          | 128.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 10     | 1207.7 | 0.132821   | 43.2          | 71.7          | 104.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 11     | 1174.8 | 0.109383   | 35.5          | 59.1          | 86.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 12     | 1198.1 | 0.210209   | 68.3          | 113.5         | 166.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 13     | 1227   | 0.153557   | 49.9          | 82.9          | 121.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 14     | 1180.9 | 0.174661   | 56.8          | 94.3          | 138.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 15     | 1175.6 | 0.204663   | 66.5          | 110.5         | 161.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 16     | 1160   | 0.200357   | 65.1          | 108.2         | 158.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 17     | 1127.8 | 0.286862   | 93.2          | 154.9         | 226.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 18     | 1047.3 | 0.31807    | 103.4         | 171.8         | 251.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 19     | 984.9  | 0.26857    | 87.3          | 145.0         | 212.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 20     | 990.6  | 0.313259   | 101.8         | 169.2         | 247.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 21     | 982.4  | 0.36197    | 117.6         | 195.5         | 286.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 22     | 907.7  | 0.369773   | 120.2         | 199.7         | 292.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 23     | 854.4  | 0.392717   | 127.6         | 212.1         | 310.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 21  | 24     | 776.8  | 0.412832   | 134.2         | 222.9         | 326.1         |                    | -                          | -                          | 39.34                      |
| 2020 | 8     | 22  | 1      | 722.7  | 0.411429   | 133.7         | 222.2         | 325.0         |                    | -                          | -                          | 92.33                      |
| 2020 | 8     | 22  | 2      | 702.8  | 0.445396   | 144.8         | 240.5         | 351.9         |                    | -                          | 27.71                      | 139.06                     |
| 2020 | 8     | 22  | 3      | 692.6  | 0.467304   | 151.9         | 252.3         | 369.2         |                    | -                          | 49.74                      | 166.57                     |
| 2020 | 8     | 22  | 4      | 695.7  | 0.395829   | 128.6         | 213.7         | 312.7         |                    | -                          | 8.05                       | 107.00                     |
| 2020 | 8     | 22  | 5      | 692.4  | 0.333088   | 108.3         | 179.9         | 263.1         |                    | -                          | -                          | 60.74                      |
| 2020 | 8     | 22  | 6      | 700.9  | 0.405179   | 131.7         | 218.8         | 320.1         |                    | -                          | 7.90                       | 109.19                     |
| 2020 | 8     | 22  | 7      | 737.1  | 0.414177   | 134.6         | 223.7         | 327.2         |                    | -                          | -                          | 80.10                      |
| 2020 | 8     | 22  | 8      | 841.6  | 0.42445    | 137.9         | 229.2         | 335.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 22  | 9      | 917.5  | 0.515413   | 167.5         | 278.3         | 407.2         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load  | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|-------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 8     | 22  | 10     | 982.3 | 0.57466       | 186.8            | 310.3            | 454.0            |                       | -                             | -                             | -                             |
| 2020 | 8     | 22  | 11     | 937.8 | 0.643599      | 209.2            | 347.5            | 508.4            |                       | -                             | -                             | 60.64                         |
| 2020 | 8     | 22  | 12     | 910.5 | 0.666098      | 216.5            | 359.7            | 526.2            |                       | -                             | -                             | 105.72                        |
| 2020 | 8     | 22  | 13     | 933   | 0.686379      | 223.1            | 370.6            | 542.2            |                       | -                             | -                             | 99.24                         |
| 2020 | 8     | 22  | 14     | 896   | 0.706203      | 229.5            | 381.3            | 557.9            |                       | -                             | -                             | 151.90                        |
| 2020 | 8     | 22  | 15     | 894   | 0.716646      | 232.9            | 387.0            | 566.2            |                       | -                             | -                             | 162.15                        |
| 2020 | 8     | 22  | 16     | 898.4 | 0.722407      | 234.8            | 390.1            | 570.7            |                       | -                             | -                             | 162.30                        |
| 2020 | 8     | 22  | 17     | 951.6 | 0.667851      | 217.1            | 360.6            | 527.6            |                       | -                             | -                             | 66.00                         |
| 2020 | 8     | 22  | 18     | 932.5 | 0.738605      | 240.0            | 398.8            | 583.5            |                       | -                             | -                             | 141.00                        |
| 2020 | 8     | 22  | 19     | 885.3 | 0.704863      | 229.1            | 380.6            | 556.8            |                       | -                             | -                             | 161.54                        |
| 2020 | 8     | 22  | 20     | 907.1 | 0.668155      | 217.2            | 360.8            | 527.8            |                       | -                             | -                             | 110.74                        |
| 2020 | 8     | 22  | 21     | 903.1 | 0.591581      | 192.3            | 319.5            | 467.3            |                       | -                             | -                             | 54.25                         |
| 2020 | 8     | 22  | 22     | 887   | 0.570123      | 185.3            | 307.9            | 450.4            |                       | -                             | -                             | 53.40                         |
| 2020 | 8     | 22  | 23     | 809.3 | 0.405814      | 131.9            | 219.1            | 320.6            |                       | -                             | -                             | 1.29                          |
| 2020 | 8     | 22  | 24     | 747.2 | 0.409031      | 132.9            | 220.9            | 323.1            |                       | -                             | -                             | 65.93                         |
| 2020 | 8     | 23  | 1      | 705.3 | 0.369116      | 120.0            | 199.3            | 291.6            |                       | -                             | -                             | 76.30                         |
| 2020 | 8     | 23  | 2      | 695.7 | 0.305168      | 99.2             | 164.8            | 241.1            |                       | -                             | -                             | 35.38                         |
| 2020 | 8     | 23  | 3      | 682.3 | 0.305235      | 99.2             | 164.8            | 241.1            |                       | -                             | -                             | 48.84                         |
| 2020 | 8     | 23  | 4      | 675.9 | 0.300519      | 97.7             | 162.3            | 237.4            |                       | -                             | -                             | 51.51                         |
| 2020 | 8     | 23  | 5      | 679.9 | 0.273764      | 89.0             | 147.8            | 216.3            |                       | -                             | -                             | 26.37                         |
| 2020 | 8     | 23  | 6      | 688.7 | 0.286682      | 93.2             | 154.8            | 226.5            |                       | -                             | -                             | 27.78                         |
| 2020 | 8     | 23  | 7      | 697   | 0.23742       | 77.2             | 128.2            | 187.6            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 8      | 772.4 | 0.176165      | 57.3             | 95.1             | 139.2            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 9      | 880   | 0.166715      | 54.2             | 90.0             | 131.7            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 10     | 870.6 | 0.208788      | 67.9             | 112.7            | 164.9            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 11     | 899.5 | 0.204546      | 66.5             | 110.5            | 161.6            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 12     | 934.3 | 0.186974      | 60.8             | 101.0            | 147.7            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 13     | 906.1 | 0.187535      | 60.9             | 101.3            | 148.2            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 14     | 867.8 | 0.15753       | 51.2             | 85.1             | 124.4            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 15     | 845.2 | 0.257387      | 83.7             | 139.0            | 203.3            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 16     | 890.6 | 0.309165      | 100.5            | 166.9            | 244.2            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 17     | 915.6 | 0.280374      | 91.1             | 151.4            | 221.5            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 18     | 874.4 | 0.197245      | 64.1             | 106.5            | 155.8            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 19     | 930.9 | 0.391973      | 127.4            | 211.7            | 309.7            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 20     | 976.6 | 0.35343       | 114.9            | 190.9            | 279.2            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 21     | 977.2 | 0.409123      | 133.0            | 220.9            | 323.2            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 22     | 893.4 | 0.378495      | 123.0            | 204.4            | 299.0            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 23     | 815.8 | 0.353694      | 115.0            | 191.0            | 279.4            |                       | -                             | -                             | -                             |
| 2020 | 8     | 23  | 24     | 729.3 | 0.350849      | 114.0            | 189.5            | 277.2            |                       | -                             | -                             | 37.87                         |
| 2020 | 8     | 24  | 1      | 710.2 | 0.354031      | 115.1            | 191.2            | 279.7            |                       | -                             | -                             | 59.48                         |
| 2020 | 8     | 24  | 2      | 698.8 | 0.282321      | 91.8             | 152.5            | 223.0            |                       | -                             | -                             | 14.23                         |
| 2020 | 8     | 24  | 3      | 690.6 | 0.302523      | 98.3             | 163.4            | 239.0            |                       | -                             | -                             | 38.39                         |
| 2020 | 8     | 24  | 4      | 715   | 0.252196      | 82.0             | 136.2            | 199.2            |                       | -                             | -                             | -                             |
| 2020 | 8     | 24  | 5      | 725.2 | 0.208397      | 67.7             | 112.5            | 164.6            |                       | -                             | -                             | -                             |
| 2020 | 8     | 24  | 6      | 796.6 | 0.168885      | 54.9             | 91.2             | 133.4            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 8     | 24  | 7      | 927.9  | 0.139893   | 45.5          | 75.5          | 110.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 8      | 1091.9 | 0.075242   | 24.5          | 40.6          | 59.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 9      | 1174.3 | 0.082865   | 26.9          | 44.7          | 65.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 10     | 1134.6 | 0.094583   | 30.7          | 51.1          | 74.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 11     | 1141.1 | 0.117823   | 38.3          | 63.6          | 93.1          |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 12     | 1191.5 | 0.141286   | 45.9          | 76.3          | 111.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 13     | 1164.1 | 0.199001   | 64.7          | 107.5         | 157.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 14     | 1101.2 | 0.282618   | 91.9          | 152.6         | 223.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 15     | 1140.5 | 0.356444   | 115.8         | 192.5         | 281.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 16     | 1262.6 | 0.321721   | 104.6         | 173.7         | 254.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 17     | 1183.9 | 0.289899   | 94.2          | 156.5         | 229.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 18     | 1043.8 | 0.424185   | 137.9         | 229.1         | 335.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 19     | 1071   | 0.563323   | 183.1         | 304.2         | 445.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 20     | 1054.4 | 0.591658   | 192.3         | 319.5         | 467.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 21     | 1003.9 | 0.57515    | 186.9         | 310.6         | 454.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 22     | 965.8  | 0.553305   | 179.8         | 298.8         | 437.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 23     | 872.8  | 0.407351   | 132.4         | 220.0         | 321.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 24  | 24     | 763.7  | 0.430697   | 140.0         | 232.6         | 340.3         |                    | -                          | -                          | 66.55                      |
| 2020 | 8     | 25  | 1      | 725    | 0.441247   | 143.4         | 238.3         | 348.6         |                    | -                          | 3.27                       | 113.59                     |
| 2020 | 8     | 25  | 2      | 710.9  | 0.346245   | 112.5         | 187.0         | 273.5         |                    | -                          | -                          | 52.63                      |
| 2020 | 8     | 25  | 3      | 702.1  | 0.525439   | 170.8         | 283.7         | 415.1         |                    | -                          | 71.64                      | 203.00                     |
| 2020 | 8     | 25  | 4      | 708.6  | 0.507399   | 164.9         | 274.0         | 400.8         |                    | -                          | 55.40                      | 182.25                     |
| 2020 | 8     | 25  | 5      | 715.2  | 0.453241   | 147.3         | 244.7         | 358.1         |                    | -                          | 19.55                      | 132.86                     |
| 2020 | 8     | 25  | 6      | 769.2  | 0.511978   | 166.4         | 276.5         | 404.5         |                    | -                          | -                          | 125.26                     |
| 2020 | 8     | 25  | 7      | 909.6  | 0.453201   | 147.3         | 244.7         | 358.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 25  | 8      | 1015.9 | 0.343467   | 111.6         | 185.5         | 271.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 25  | 9      | 1120   | 0.359235   | 116.8         | 194.0         | 283.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 25  | 10     | 1172.2 | 0.469964   | 152.7         | 253.8         | 371.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 25  | 11     | 1097.3 | 0.586215   | 190.5         | 316.6         | 463.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 25  | 12     | 1131.1 | 0.621737   | 202.1         | 335.7         | 491.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 25  | 13     | 1130.7 | 0.633491   | 205.9         | 342.1         | 500.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 25  | 14     | 1130   | 0.705947   | 229.4         | 381.2         | 557.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 25  | 15     | 1120.8 | 0.808591   | 262.8         | 436.6         | 638.8         |                    | -                          | -                          | 7.99                       |
| 2020 | 8     | 25  | 16     | 1170.9 | 0.80963    | 263.1         | 437.2         | 639.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 25  | 17     | 1168.4 | 0.800752   | 260.2         | 432.4         | 632.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 25  | 18     | 1056.3 | 0.814387   | 264.7         | 439.8         | 643.4         |                    | -                          | -                          | 77.07                      |
| 2020 | 8     | 25  | 19     | 1040.9 | 0.744969   | 242.1         | 402.3         | 588.5         |                    | -                          | -                          | 37.63                      |
| 2020 | 8     | 25  | 20     | 1041.7 | 0.706327   | 229.6         | 381.4         | 558.0         |                    | -                          | -                          | 6.30                       |
| 2020 | 8     | 25  | 21     | 1006.5 | 0.757725   | 246.3         | 409.2         | 598.6         |                    | -                          | -                          | 82.10                      |
| 2020 | 8     | 25  | 22     | 935.4  | 0.685491   | 222.8         | 370.2         | 541.5         |                    | -                          | -                          | 96.14                      |
| 2020 | 8     | 25  | 23     | 828.1  | 0.572659   | 186.1         | 309.2         | 452.4         |                    | -                          | -                          | 114.30                     |
| 2020 | 8     | 25  | 24     | 736.4  | 0.713423   | 231.9         | 385.2         | 563.6         |                    | -                          | 138.85                     | 317.20                     |
| 2020 | 8     | 26  | 1      | 709    | 0.673537   | 218.9         | 363.7         | 532.1         |                    | -                          | 144.71                     | 313.09                     |
| 2020 | 8     | 26  | 2      | 699.9  | 0.698332   | 227.0         | 377.1         | 551.7         |                    | 17.06                      | 167.20                     | 341.78                     |
| 2020 | 8     | 26  | 3      | 699.4  | 0.742568   | 241.3         | 401.0         | 586.6         |                    | 31.93                      | 191.59                     | 377.23                     |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 8     | 26  | 4      | 692.4  | 0.636527      | 206.9            | 343.7            | 502.9            |                       | 4.47                          | 141.32                        | 300.46                        |
| 2020 | 8     | 26  | 5      | 714.4  | 0.60857       | 197.8            | 328.6            | 480.8            |                       | -                             | 104.23                        | 256.37                        |
| 2020 | 8     | 26  | 6      | 775.5  | 0.622504      | 202.3            | 336.2            | 491.8            |                       | -                             | 50.65                         | 206.28                        |
| 2020 | 8     | 26  | 7      | 920.8  | 0.633373      | 205.8            | 342.0            | 500.4            |                       | -                             | -                             | 69.56                         |
| 2020 | 8     | 26  | 8      | 1029   | 0.568064      | 184.6            | 306.8            | 448.8            |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 9      | 1090.7 | 0.48659       | 158.1            | 262.8            | 384.4            |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 10     | 1100.5 | 0.539252      | 175.3            | 291.2            | 426.0            |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 11     | 1125.7 | 0.503557      | 163.7            | 271.9            | 397.8            |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 12     | 1191.2 | 0.525816      | 170.9            | 283.9            | 415.4            |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 13     | 1116.9 | 0.311866      | 101.4            | 168.4            | 246.4            |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 14     | 1132.5 | 0.211297      | 68.7             | 114.1            | 166.9            |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 15     | 1099.5 | 0.169147      | 55.0             | 91.3             | 133.6            |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 16     | 1119   | 0.132869      | 43.2             | 71.7             | 105.0            |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 17     | 1097   | 0.130064      | 42.3             | 70.2             | 102.8            |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 18     | 1028.3 | 0.10602       | 34.5             | 57.3             | 83.8             |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 19     | 1024.1 | 0.087255      | 28.4             | 47.1             | 68.9             |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 20     | 1012.2 | 0.123997      | 40.3             | 67.0             | 98.0             |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 21     | 987.7  | 0.093097      | 30.3             | 50.3             | 73.5             |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 22     | 928.6  | 0.062002      | 20.2             | 33.5             | 49.0             |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 23     | 850.6  | 0.058877      | 19.1             | 31.8             | 46.5             |                       | -                             | -                             | -                             |
| 2020 | 8     | 26  | 24     | 773    | 0.053952      | 17.5             | 29.1             | 42.6             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 1      | 727.1  | 0.050948      | 16.6             | 27.5             | 40.2             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 2      | 722.1  | 0.055531      | 18.0             | 30.0             | 43.9             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 3      | 731.5  | 0.044622      | 14.5             | 24.1             | 35.3             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 4      | 721.9  | 0.024929      | 8.1              | 13.5             | 19.7             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 5      | 740.9  | 0.0239        | 7.8              | 12.9             | 18.9             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 6      | 816.5  | 0.024813      | 8.1              | 13.4             | 19.6             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 7      | 958.5  | 0.036989      | 12.0             | 20.0             | 29.2             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 8      | 1104.6 | 0.073525      | 23.9             | 39.7             | 58.1             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 9      | 1245.7 | 0.05398       | 17.5             | 29.1             | 42.6             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 10     | 1234.5 | 0.070485      | 22.9             | 38.1             | 55.7             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 11     | 1277.7 | 0.085252      | 27.7             | 46.0             | 67.3             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 12     | 1240.5 | 0.071693      | 23.3             | 38.7             | 56.6             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 13     | 1182.5 | 0.071893      | 23.4             | 38.8             | 56.8             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 14     | 1149.5 | 0.076059      | 24.7             | 41.1             | 60.1             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 15     | 1183.5 | 0.07865       | 25.6             | 42.5             | 62.1             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 16     | 1270.1 | 0.109964      | 35.7             | 59.4             | 86.9             |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 17     | 1262   | 0.138997      | 45.2             | 75.1             | 109.8            |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 18     | 1163.7 | 0.141575      | 46.0             | 76.5             | 111.8            |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 19     | 1146.3 | 0.154208      | 50.1             | 83.3             | 121.8            |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 20     | 1086.9 | 0.224534      | 73.0             | 121.2            | 177.4            |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 21     | 1113.3 | 0.294655      | 95.8             | 159.1            | 232.8            |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 22     | 985.4  | 0.306782      | 99.7             | 165.7            | 242.4            |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 23     | 881.3  | 0.294291      | 95.6             | 158.9            | 232.5            |                       | -                             | -                             | -                             |
| 2020 | 8     | 27  | 24     | 809    | 0.255555      | 83.1             | 138.0            | 201.9            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 8     | 28  | 1      | 763    | 0.21422    | 69.6          | 115.7         | 169.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 2      | 746.3  | 0.241358   | 78.4          | 130.3         | 190.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 3      | 752.3  | 0.239254   | 77.8          | 129.2         | 189.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 4      | 745.6  | 0.262727   | 85.4          | 141.9         | 207.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 5      | 733.3  | 0.217584   | 70.7          | 117.5         | 171.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 6      | 783.9  | 0.194783   | 63.3          | 105.2         | 153.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 7      | 930    | 0.115214   | 37.4          | 62.2          | 91.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 8      | 1107.6 | 0.149319   | 48.5          | 80.6          | 118.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 9      | 1184.4 | 0.226158   | 73.5          | 122.1         | 178.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 10     | 1175.9 | 0.238718   | 77.6          | 128.9         | 188.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 11     | 1186.3 | 0.26835    | 87.2          | 144.9         | 212.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 12     | 1195.3 | 0.38018    | 123.6         | 205.3         | 300.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 13     | 1132.8 | 0.489838   | 159.2         | 264.5         | 387.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 14     | 1158.5 | 0.535103   | 173.9         | 289.0         | 422.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 15     | 1149.2 | 0.628279   | 204.2         | 339.3         | 496.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 16     | 1148.6 | 0.699001   | 227.2         | 377.5         | 552.2         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 17     | 1150   | 0.7292     | 237.0         | 393.8         | 576.1         |                    | -                          | -                          | -                          |
| 2020 | 8     | 28  | 18     | 1075.1 | 0.757684   | 246.2         | 409.1         | 598.6         |                    | -                          | -                          | 13.47                      |
| 2020 | 8     | 28  | 19     | 1005.9 | 0.850793   | 276.5         | 459.4         | 672.1         |                    | -                          | -                          | 156.23                     |
| 2020 | 8     | 28  | 20     | 1048.1 | 0.844343   | 274.4         | 455.9         | 667.0         |                    | -                          | -                          | 108.93                     |
| 2020 | 8     | 28  | 21     | 1010.1 | 0.864859   | 281.1         | 467.0         | 683.2         |                    | -                          | -                          | 163.14                     |
| 2020 | 8     | 28  | 22     | 960.4  | 0.808176   | 262.7         | 436.4         | 638.5         |                    | -                          | -                          | 168.06                     |
| 2020 | 8     | 28  | 23     | 876.7  | 0.853658   | 277.4         | 461.0         | 674.4         |                    | -                          | 74.28                      | 287.69                     |
| 2020 | 8     | 28  | 24     | 765.5  | 0.835317   | 271.5         | 451.1         | 659.9         |                    | -                          | 175.57                     | 384.40                     |
| 2020 | 8     | 29  | 1      | 720.1  | 0.825662   | 268.3         | 445.9         | 652.3         |                    | 38.24                      | 215.76                     | 422.17                     |
| 2020 | 8     | 29  | 2      | 698.1  | 0.855935   | 278.2         | 462.2         | 676.2         |                    | 70.08                      | 254.10                     | 468.09                     |
| 2020 | 8     | 29  | 3      | 674.4  | 0.761128   | 247.4         | 411.0         | 601.3         |                    | 62.97                      | 226.61                     | 416.89                     |
| 2020 | 8     | 29  | 4      | 681.2  | 0.791908   | 257.4         | 427.6         | 625.6         |                    | 66.17                      | 236.43                     | 434.41                     |
| 2020 | 8     | 29  | 5      | 682.8  | 0.773559   | 251.4         | 417.7         | 611.1         |                    | 58.61                      | 224.92                     | 418.31                     |
| 2020 | 8     | 29  | 6      | 703    | 0.780824   | 253.8         | 421.6         | 616.9         |                    | 40.77                      | 208.64                     | 403.85                     |
| 2020 | 8     | 29  | 7      | 731.8  | 0.837573   | 272.2         | 452.3         | 661.7         |                    | 30.41                      | 210.49                     | 419.88                     |
| 2020 | 8     | 29  | 8      | 837.6  | 0.811469   | 263.7         | 438.2         | 641.1         |                    | -                          | 90.59                      | 293.46                     |
| 2020 | 8     | 29  | 9      | 921.2  | 0.838756   | 272.6         | 452.9         | 662.6         |                    | -                          | 21.73                      | 231.42                     |
| 2020 | 8     | 29  | 10     | 956.9  | 0.844397   | 274.4         | 456.0         | 667.1         |                    | -                          | -                          | 200.17                     |
| 2020 | 8     | 29  | 11     | 931.7  | 0.841717   | 273.6         | 454.5         | 665.0         |                    | -                          | 12.83                      | 223.26                     |
| 2020 | 8     | 29  | 12     | 892.3  | 0.807044   | 262.3         | 435.8         | 637.6         |                    | -                          | 33.50                      | 235.26                     |
| 2020 | 8     | 29  | 13     | 923.1  | 0.774514   | 251.7         | 418.2         | 611.9         |                    | -                          | -                          | 178.77                     |
| 2020 | 8     | 29  | 14     | 871.6  | 0.733412   | 238.4         | 396.0         | 579.4         |                    | -                          | 14.44                      | 197.80                     |
| 2020 | 8     | 29  | 15     | 899.3  | 0.682531   | 221.8         | 368.6         | 539.2         |                    | -                          | -                          | 129.90                     |
| 2020 | 8     | 29  | 16     | 871.1  | 0.569663   | 185.1         | 307.6         | 450.0         |                    | -                          | -                          | 68.93                      |
| 2020 | 8     | 29  | 17     | 866.5  | 0.599914   | 195.0         | 324.0         | 473.9         |                    | -                          | -                          | 97.43                      |
| 2020 | 8     | 29  | 18     | 861.3  | 0.48451    | 157.5         | 261.6         | 382.8         |                    | -                          | -                          | 11.46                      |
| 2020 | 8     | 29  | 19     | 862.7  | 0.44508    | 144.7         | 240.3         | 351.6         |                    | -                          | -                          | -                          |
| 2020 | 8     | 29  | 20     | 882.5  | 0.375734   | 122.1         | 202.9         | 296.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 29  | 21     | 864    | 0.436764   | 141.9         | 235.9         | 345.0         |                    | -                          | -                          | -                          |



| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 8     | 29  | 22     | 819.4  | 0.382678   | 124.4         | 206.6         | 302.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 29  | 23     | 740.2  | 0.292425   | 95.0          | 157.9         | 231.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 29  | 24     | 715.4  | 0.266248   | 86.5          | 143.8         | 210.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 1      | 688.4  | 0.18089    | 58.8          | 97.7          | 142.9         |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 2      | 681.2  | 0.159197   | 51.7          | 86.0          | 125.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 3      | 659.6  | 0.09808    | 31.9          | 53.0          | 77.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 4      | 666.3  | 0.067988   | 22.1          | 36.7          | 53.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 5      | 666.6  | 0.049306   | 16.0          | 26.6          | 39.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 6      | 668.8  | 0.031869   | 10.4          | 17.2          | 25.2          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 7      | 705.6  | 0.023887   | 7.8           | 12.9          | 18.9          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 8      | 744.9  | 0.020911   | 6.8           | 11.3          | 16.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 9      | 873.4  | 0.019594   | 6.4           | 10.6          | 15.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 10     | 893.7  | 0.021527   | 7.0           | 11.6          | 17.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 11     | 895.4  | 0.022385   | 7.3           | 12.1          | 17.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 12     | 894.3  | 0.028236   | 9.2           | 15.2          | 22.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 13     | 910.2  | 0.031616   | 10.3          | 17.1          | 25.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 14     | 898.6  | 0.018341   | 6.0           | 9.9           | 14.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 15     | 956.3  | 0.020651   | 6.7           | 11.2          | 16.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 16     | 960.7  | 0.015421   | 5.0           | 8.3           | 12.2          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 17     | 992.8  | 0.014174   | 4.6           | 7.7           | 11.2          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 18     | 985.1  | 0.017354   | 5.6           | 9.4           | 13.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 19     | 942    | 0.018128   | 5.9           | 9.8           | 14.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 20     | 992.2  | 0.032533   | 10.6          | 17.6          | 25.7          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 21     | 977.4  | 0.047557   | 15.5          | 25.7          | 37.6          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 22     | 918.7  | 0.062552   | 20.3          | 33.8          | 49.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 23     | 813.4  | 0.071989   | 23.4          | 38.9          | 56.9          |                    | -                          | -                          | -                          |
| 2020 | 8     | 30  | 24     | 754.2  | 0.080818   | 26.3          | 43.6          | 63.8          |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 1      | 729.2  | 0.114437   | 37.2          | 61.8          | 90.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 2      | 712.8  | 0.124537   | 40.5          | 67.3          | 98.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 3      | 707.9  | 0.166186   | 54.0          | 89.7          | 131.3         |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 4      | 715.9  | 0.173152   | 56.3          | 93.5          | 136.8         |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 5      | 738    | 0.18664    | 60.7          | 100.8         | 147.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 6      | 832.2  | 0.102709   | 33.4          | 55.5          | 81.1          |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 7      | 973.8  | 0.050611   | 16.4          | 27.3          | 40.0          |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 8      | 1083.2 | 0.026942   | 8.8           | 14.5          | 21.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 9      | 1186.6 | 0.018301   | 5.9           | 9.9           | 14.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 10     | 1235.7 | 0.029351   | 9.5           | 15.8          | 23.2          |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 11     | 1277.1 | 0.030884   | 10.0          | 16.7          | 24.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 12     | 1295.3 | 0.049526   | 16.1          | 26.7          | 39.1          |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 13     | 1274.3 | 0.081386   | 26.5          | 43.9          | 64.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 14     | 1214.4 | 0.133433   | 43.4          | 72.1          | 105.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 15     | 1220.1 | 0.179384   | 58.3          | 96.9          | 141.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 16     | 1251.7 | 0.19833    | 64.5          | 107.1         | 156.7         |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 17     | 1218.5 | 0.168406   | 54.7          | 90.9          | 133.0         |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 18     | 1108.5 | 0.143768   | 46.7          | 77.6          | 113.6         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 8     | 31  | 19     | 1092.2 | 0.146158   | 47.5          | 78.9          | 115.5         |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 20     | 1126.6 | 0.157429   | 51.2          | 85.0          | 124.4         |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 21     | 1135.1 | 0.080399   | 26.1          | 43.4          | 63.5          |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 22     | 1071.3 | 0.051148   | 16.6          | 27.6          | 40.4          |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 23     | 920.3  | 0.039639   | 12.9          | 21.4          | 31.3          |                    | -                          | -                          | -                          |
| 2020 | 8     | 31  | 24     | 869.7  | 0.035467   | 11.5          | 19.2          | 28.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 1      | 840.3  | 0.069184   | 22.5          | 37.4          | 54.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 2      | 823.8  | 0.056394   | 18.3          | 30.5          | 44.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 3      | 800.2  | 0.045761   | 14.9          | 24.7          | 36.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 4      | 807.6  | 0.055985   | 18.2          | 30.2          | 44.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 5      | 818.8  | 0.059604   | 19.4          | 32.2          | 47.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 6      | 877.5  | 0.073373   | 23.8          | 39.6          | 58.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 7      | 1020.7 | 0.063293   | 20.6          | 34.2          | 50.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 8      | 1163.9 | 0.042969   | 14.0          | 23.2          | 33.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 9      | 1264   | 0.048774   | 15.9          | 26.3          | 38.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 10     | 1269.2 | 0.035119   | 11.4          | 19.0          | 27.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 11     | 1251.7 | 0.030718   | 10.0          | 16.6          | 24.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 12     | 1280.5 | 0.047875   | 15.6          | 25.9          | 37.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 13     | 1291.4 | 0.070512   | 22.9          | 38.1          | 55.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 14     | 1280.7 | 0.075866   | 24.7          | 41.0          | 59.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 15     | 1290.8 | 0.094616   | 30.8          | 51.1          | 74.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 16     | 1321   | 0.067646   | 22.0          | 36.5          | 53.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 17     | 1281.7 | 0.065595   | 21.3          | 35.4          | 51.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 18     | 1242.5 | 0.062726   | 20.4          | 33.9          | 49.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 19     | 1278.6 | 0.057078   | 18.6          | 30.8          | 45.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 20     | 1271.7 | 0.106447   | 34.6          | 57.5          | 84.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 21     | 1274.2 | 0.124715   | 40.5          | 67.3          | 98.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 22     | 1160.7 | 0.120311   | 39.1          | 65.0          | 95.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 23     | 1024.5 | 0.073006   | 23.7          | 39.4          | 57.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 1   | 24     | 893.9  | 0.064742   | 21.0          | 35.0          | 51.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 1      | 831.4  | 0.078116   | 25.4          | 42.2          | 61.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 2      | 803.1  | 0.051876   | 16.9          | 28.0          | 41.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 3      | 789.9  | 0.056247   | 18.3          | 30.4          | 44.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 4      | 790.3  | 0.065198   | 21.2          | 35.2          | 51.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 5      | 824.9  | 0.060226   | 19.6          | 32.5          | 47.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 6      | 931.9  | 0.080971   | 26.3          | 43.7          | 64.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 7      | 1062.3 | 0.052246   | 17.0          | 28.2          | 41.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 8      | 1153.6 | 0.02944    | 9.6           | 15.9          | 23.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 9      | 1176   | 0.040276   | 13.1          | 21.7          | 31.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 10     | 1229.7 | 0.042111   | 13.7          | 22.7          | 33.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 11     | 1247.4 | 0.04132    | 13.4          | 22.3          | 32.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 12     | 1278.4 | 0.057481   | 18.7          | 31.0          | 45.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 13     | 1250.4 | 0.065588   | 21.3          | 35.4          | 51.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 14     | 1231   | 0.078728   | 25.6          | 42.5          | 62.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 2   | 15     | 1272.7 | 0.078165   | 25.4          | 42.2          | 61.8          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 9     | 2   | 16     | 1272.9 | 0.077711      | 25.3             | 42.0             | 61.4             |                       | -                             | -                             | -                             |
| 2020 | 9     | 2   | 17     | 1265   | 0.080277      | 26.1             | 43.3             | 63.4             |                       | -                             | -                             | -                             |
| 2020 | 9     | 2   | 18     | 1225.1 | 0.068856      | 22.4             | 37.2             | 54.4             |                       | -                             | -                             | -                             |
| 2020 | 9     | 2   | 19     | 1188.9 | 0.105415      | 34.3             | 56.9             | 83.3             |                       | -                             | -                             | -                             |
| 2020 | 9     | 2   | 20     | 1245.4 | 0.150147      | 48.8             | 81.1             | 118.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 2   | 21     | 1196.8 | 0.178788      | 58.1             | 96.5             | 141.2            |                       | -                             | -                             | -                             |
| 2020 | 9     | 2   | 22     | 1109.3 | 0.145241      | 47.2             | 78.4             | 114.7            |                       | -                             | -                             | -                             |
| 2020 | 9     | 2   | 23     | 1011.1 | 0.120024      | 39.0             | 64.8             | 94.8             |                       | -                             | -                             | -                             |
| 2020 | 9     | 2   | 24     | 938.3  | 0.109658      | 35.6             | 59.2             | 86.6             |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 1      | 916.3  | 0.074015      | 24.1             | 40.0             | 58.5             |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 2      | 887.2  | 0.072484      | 23.6             | 39.1             | 57.3             |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 3      | 875.8  | 0.043981      | 14.3             | 23.7             | 34.7             |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 4      | 859    | 0.010297      | 3.3              | 5.6              | 8.1              |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 5      | 893.4  | 0.013284      | 4.3              | 7.2              | 10.5             |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 6      | 986.1  | 0.011831      | 3.8              | 6.4              | 9.3              |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 7      | 1124.1 | 0.023863      | 7.8              | 12.9             | 18.9             |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 8      | 1195.4 | 0.032869      | 10.7             | 17.7             | 26.0             |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 9      | 1263.9 | 0.02849       | 9.3              | 15.4             | 22.5             |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 10     | 1310.7 | 0.036693      | 11.9             | 19.8             | 29.0             |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 11     | 1312.6 | 0.049192      | 16.0             | 26.6             | 38.9             |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 12     | 1309   | 0.090852      | 29.5             | 49.1             | 71.8             |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 13     | 1314.6 | 0.131419      | 42.7             | 71.0             | 103.8            |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 14     | 1283   | 0.100906      | 32.8             | 54.5             | 79.7             |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 15     | 1277.1 | 0.189152      | 61.5             | 102.1            | 149.4            |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 16     | 1332.3 | 0.212979      | 69.2             | 115.0            | 168.3            |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 17     | 1251.3 | 0.224147      | 72.8             | 121.0            | 177.1            |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 18     | 1224.6 | 0.284972      | 92.6             | 153.9            | 225.1            |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 19     | 1217.6 | 0.377349      | 122.6            | 203.8            | 298.1            |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 20     | 1262.5 | 0.407089      | 132.3            | 219.8            | 321.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 21     | 1251.4 | 0.474896      | 154.3            | 256.4            | 375.2            |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 22     | 1183.3 | 0.386016      | 125.5            | 208.4            | 305.0            |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 23     | 1060.6 | 0.359896      | 117.0            | 194.3            | 284.3            |                       | -                             | -                             | -                             |
| 2020 | 9     | 3   | 24     | 931.8  | 0.30131       | 97.9             | 162.7            | 238.0            |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 1      | 870.7  | 0.229617      | 74.6             | 124.0            | 181.4            |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 2      | 844.7  | 0.189397      | 61.6             | 102.3            | 149.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 3      | 830.2  | 0.158213      | 51.4             | 85.4             | 125.0            |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 4      | 831.7  | 0.1258        | 40.9             | 67.9             | 99.4             |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 5      | 846.6  | 0.098612      | 32.0             | 53.3             | 77.9             |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 6      | 950.2  | 0.098965      | 32.2             | 53.4             | 78.2             |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 7      | 1087.7 | 0.042593      | 13.8             | 23.0             | 33.6             |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 8      | 1189.9 | 0.034185      | 11.1             | 18.5             | 27.0             |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 9      | 1267   | 0.01857       | 6.0              | 10.0             | 14.7             |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 10     | 1245.4 | 0.013373      | 4.3              | 7.2              | 10.6             |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 11     | 1270.5 | 0.019361      | 6.3              | 10.5             | 15.3             |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 12     | 1274.7 | 0.054408      | 17.7             | 29.4             | 43.0             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 9     | 4   | 13     | 1263.8 | 0.050523      | 16.4             | 27.3             | 39.9             |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 14     | 1242.7 | 0.0805        | 26.2             | 43.5             | 63.6             |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 15     | 1267.2 | 0.10087       | 32.8             | 54.5             | 79.7             |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 16     | 1235   | 0.111879      | 36.4             | 60.4             | 88.4             |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 17     | 1222.3 | 0.193739      | 63.0             | 104.6            | 153.1            |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 18     | 1120.7 | 0.226675      | 73.7             | 122.4            | 179.1            |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 19     | 1111.6 | 0.343819      | 111.7            | 185.7            | 271.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 20     | 1138.8 | 0.28694       | 93.3             | 154.9            | 226.7            |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 21     | 1093.9 | 0.284817      | 92.6             | 153.8            | 225.0            |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 22     | 1040.2 | 0.429416      | 139.6            | 231.9            | 339.2            |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 23     | 988.3  | 0.509277      | 165.5            | 275.0            | 402.3            |                       | -                             | -                             | -                             |
| 2020 | 9     | 4   | 24     | 906.9  | 0.573854      | 186.5            | 309.9            | 453.3            |                       | -                             | -                             | 36.44                         |
| 2020 | 9     | 5   | 1      | 793.7  | 0.558981      | 181.7            | 301.8            | 441.6            |                       | -                             | -                             | 137.90                        |
| 2020 | 9     | 5   | 2      | 769.2  | 0.491526      | 159.7            | 265.4            | 388.3            |                       | -                             | -                             | 109.11                        |
| 2020 | 9     | 5   | 3      | 771.3  | 0.506789      | 164.7            | 273.7            | 400.4            |                       | -                             | -                             | 119.06                        |
| 2020 | 9     | 5   | 4      | 747.5  | 0.550448      | 178.9            | 297.2            | 434.9            |                       | -                             | 39.74                         | 177.35                        |
| 2020 | 9     | 5   | 5      | 763.6  | 0.559701      | 181.9            | 302.2            | 442.2            |                       | -                             | 28.64                         | 168.56                        |
| 2020 | 9     | 5   | 6      | 765.1  | 0.622634      | 202.4            | 336.2            | 491.9            |                       | -                             | 61.12                         | 216.78                        |
| 2020 | 9     | 5   | 7      | 828    | 0.653299      | 212.3            | 352.8            | 516.1            |                       | -                             | 14.78                         | 178.11                        |
| 2020 | 9     | 5   | 8      | 943    | 0.683719      | 222.2            | 369.2            | 540.1            |                       | -                             | -                             | 87.14                         |
| 2020 | 9     | 5   | 9      | 984.7  | 0.699487      | 227.3            | 377.7            | 552.6            |                       | -                             | -                             | 57.89                         |
| 2020 | 9     | 5   | 10     | 994.8  | 0.688815      | 223.9            | 372.0            | 544.2            |                       | -                             | -                             | 39.36                         |
| 2020 | 9     | 5   | 11     | 925.9  | 0.685379      | 222.7            | 370.1            | 541.4            |                       | -                             | -                             | 105.55                        |
| 2020 | 9     | 5   | 12     | 794.7  | 0.629152      | 204.5            | 339.7            | 497.0            |                       | -                             | 35.04                         | 192.33                        |
| 2020 | 9     | 5   | 13     | 695.2  | 0.527141      | 171.3            | 284.7            | 416.4            |                       | -                             | 79.46                         | 211.24                        |
| 2020 | 9     | 5   | 14     | 675.2  | 0.533646      | 173.4            | 288.2            | 421.6            |                       | -                             | 102.97                        | 236.38                        |
| 2020 | 9     | 5   | 15     | 688.8  | 0.593139      | 192.8            | 320.3            | 468.6            |                       | -                             | 121.49                        | 269.78                        |
| 2020 | 9     | 5   | 16     | 693.4  | 0.645699      | 209.9            | 348.7            | 510.1            |                       | 6.45                          | 145.28                        | 306.70                        |
| 2020 | 9     | 5   | 17     | 647.9  | 0.704706      | 229.0            | 380.5            | 556.7            |                       | 71.13                         | 222.64                        | 398.82                        |
| 2020 | 9     | 5   | 18     | 679.6  | 0.619271      | 201.3            | 334.4            | 489.2            |                       | 11.66                         | 144.81                        | 299.62                        |
| 2020 | 9     | 5   | 19     | 692.8  | 0.520592      | 169.2            | 281.1            | 411.3            |                       | -                             | 78.32                         | 208.47                        |
| 2020 | 9     | 5   | 20     | 717    | 0.603752      | 196.2            | 326.0            | 477.0            |                       | -                             | 99.03                         | 249.96                        |
| 2020 | 9     | 5   | 21     | 719.9  | 0.664745      | 216.0            | 359.0            | 525.1            |                       | -                             | 129.06                        | 295.25                        |
| 2020 | 9     | 5   | 22     | 682.7  | 0.646505      | 210.1            | 349.1            | 510.7            |                       | 17.41                         | 156.41                        | 318.04                        |
| 2020 | 9     | 5   | 23     | 674.8  | 0.606811      | 197.2            | 327.7            | 479.4            |                       | 12.41                         | 142.88                        | 294.58                        |
| 2020 | 9     | 5   | 24     | 639.5  | 0.633284      | 205.8            | 342.0            | 500.3            |                       | 56.32                         | 192.47                        | 350.79                        |
| 2020 | 9     | 6   | 1      | 608.8  | 0.671351      | 218.2            | 362.5            | 530.4            |                       | 99.39                         | 243.73                        | 411.57                        |
| 2020 | 9     | 6   | 2      | 591.3  | 0.651101      | 211.6            | 351.6            | 514.4            |                       | 110.31                        | 250.29                        | 413.07                        |
| 2020 | 9     | 6   | 3      | 577.9  | 0.667793      | 217.0            | 360.6            | 527.6            |                       | 129.13                        | 272.71                        | 439.66                        |
| 2020 | 9     | 6   | 4      | 579.5  | 0.634661      | 206.3            | 342.7            | 501.4            |                       | 116.76                        | 253.22                        | 411.88                        |
| 2020 | 9     | 6   | 5      | 575.5  | 0.585782      | 190.4            | 316.3            | 462.8            |                       | 104.88                        | 230.82                        | 377.27                        |
| 2020 | 9     | 6   | 6      | 568.7  | 0.638002      | 207.4            | 344.5            | 504.0            |                       | 128.65                        | 265.82                        | 425.32                        |
| 2020 | 9     | 6   | 7      | 632    | 0.585677      | 190.3            | 316.3            | 462.7            |                       | 48.35                         | 174.27                        | 320.68                        |
| 2020 | 9     | 6   | 8      | 741.4  | 0.563487      | 183.1            | 304.3            | 445.2            |                       | -                             | 52.88                         | 193.75                        |
| 2020 | 9     | 6   | 9      | 780.4  | 0.510813      | 166.0            | 275.8            | 403.5            |                       | -                             | -                             | 113.14                        |

| Year | Month | Day | Period | Load  | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|-------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 9     | 6   | 10     | 866.1 | 0.576108   | 187.2         | 311.1         | 455.1         |                    | -                          | -                          | 79.03                      |
| 2020 | 9     | 6   | 11     | 926.2 | 0.462476   | 150.3         | 249.7         | 365.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 6   | 12     | 957.3 | 0.361141   | 117.4         | 195.0         | 285.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 6   | 13     | 949.9 | 0.574893   | 186.8         | 310.4         | 454.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 6   | 14     | 908.1 | 0.525836   | 170.9         | 284.0         | 415.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 6   | 15     | 922   | 0.602995   | 196.0         | 325.6         | 476.4         |                    | -                          | -                          | 44.37                      |
| 2020 | 9     | 6   | 16     | 900.6 | 0.562843   | 182.9         | 303.9         | 444.6         |                    | -                          | -                          | 34.05                      |
| 2020 | 9     | 6   | 17     | 906.5 | 0.566085   | 184.0         | 305.7         | 447.2         |                    | -                          | -                          | 30.71                      |
| 2020 | 9     | 6   | 18     | 885.9 | 0.576284   | 187.3         | 311.2         | 455.3         |                    | -                          | -                          | 59.36                      |
| 2020 | 9     | 6   | 19     | 874.6 | 0.611243   | 198.7         | 330.1         | 482.9         |                    | -                          | -                          | 98.28                      |
| 2020 | 9     | 6   | 20     | 880.9 | 0.539589   | 175.4         | 291.4         | 426.3         |                    | -                          | -                          | 35.38                      |
| 2020 | 9     | 6   | 21     | 865.4 | 0.550138   | 178.8         | 297.1         | 434.6         |                    | -                          | -                          | 59.21                      |
| 2020 | 9     | 6   | 22     | 820.9 | 0.522124   | 169.7         | 281.9         | 412.5         |                    | -                          | -                          | 81.58                      |
| 2020 | 9     | 6   | 23     | 786.9 | 0.513679   | 166.9         | 277.4         | 405.8         |                    | -                          | -                          | 108.91                     |
| 2020 | 9     | 6   | 24     | 741.1 | 0.480594   | 156.2         | 259.5         | 379.7         |                    | -                          | 8.42                       | 128.57                     |
| 2020 | 9     | 7   | 1      | 691.5 | 0.411194   | 133.9         | 222.4         | 325.4         |                    | -                          | 20.95                      | 123.93                     |
| 2020 | 9     | 7   | 2      | 652.3 | 0.411829   | 133.8         | 222.4         | 325.3         |                    | -                          | 60.09                      | 163.05                     |
| 2020 | 9     | 7   | 3      | 620.2 | 0.417134   | 135.6         | 225.3         | 329.5         |                    | 5.37                       | 95.05                      | 199.34                     |
| 2020 | 9     | 7   | 4      | 636.4 | 0.524941   | 170.6         | 283.5         | 414.7         |                    | 24.21                      | 137.07                     | 268.30                     |
| 2020 | 9     | 7   | 5      | 638.8 | 0.317257   | 103.1         | 171.3         | 250.6         |                    | -                          | 22.52                      | 101.83                     |
| 2020 | 9     | 7   | 6      | 659.5 | 0.276333   | 89.8          | 149.2         | 218.3         |                    | -                          | -                          | 48.80                      |
| 2020 | 9     | 7   | 7      | 730.9 | 0.197512   | 64.2          | 106.7         | 156.0         |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 8      | 866.1 | 0.153936   | 50.0          | 83.1          | 121.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 9      | 957.4 | 0.128486   | 41.8          | 69.4          | 101.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 10     | 936.7 | 0.104064   | 33.8          | 56.2          | 82.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 11     | 944.7 | 0.10012    | 32.5          | 54.1          | 79.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 12     | 954.9 | 0.078387   | 25.5          | 42.3          | 61.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 13     | 951.3 | 0.054116   | 17.6          | 29.2          | 42.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 14     | 936.4 | 0.048594   | 15.8          | 26.2          | 38.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 15     | 907.6 | 0.029896   | 9.7           | 16.1          | 23.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 16     | 946.1 | 0.033622   | 10.9          | 18.2          | 26.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 17     | 990.7 | 0.022081   | 7.2           | 11.9          | 17.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 18     | 896.6 | 0.041776   | 13.6          | 22.6          | 33.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 19     | 908.4 | 0.113413   | 36.9          | 61.2          | 89.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 20     | 948.7 | 0.150423   | 48.9          | 81.2          | 118.8         |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 21     | 927.4 | 0.214919   | 69.8          | 116.1         | 169.8         |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 22     | 862.7 | 0.191669   | 62.3          | 103.5         | 151.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 23     | 744   | 0.141798   | 46.1          | 76.6          | 112.0         |                    | -                          | -                          | -                          |
| 2020 | 9     | 7   | 24     | 676.7 | 0.140675   | 45.7          | 76.0          | 111.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 1      | 645.1 | 0.110731   | 36.0          | 59.8          | 87.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 2      | 627.2 | 0.145812   | 47.4          | 78.7          | 115.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 3      | 612.8 | 0.170869   | 55.5          | 92.3          | 135.0         |                    | -                          | -                          | 12.19                      |
| 2020 | 9     | 8   | 4      | 628.1 | 0.141305   | 45.9          | 76.3          | 111.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 5      | 674.5 | 0.061383   | 19.9          | 33.1          | 48.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 6      | 806.7 | 0.085286   | 27.7          | 46.1          | 67.4          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 9     | 8   | 7      | 947.4  | 0.083109   | 27.0          | 44.9          | 65.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 8      | 1000.8 | 0.118057   | 38.4          | 63.8          | 93.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 9      | 994.5  | 0.056476   | 18.4          | 30.5          | 44.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 10     | 1024.3 | 0.039765   | 12.9          | 21.5          | 31.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 11     | 979.4  | 0.071067   | 23.1          | 38.4          | 56.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 12     | 1023.2 | 0.153634   | 49.9          | 83.0          | 121.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 13     | 1024.8 | 0.06025    | 19.6          | 32.5          | 47.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 14     | 1027.9 | 0.039541   | 12.9          | 21.4          | 31.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 15     | 1021.2 | 0.041702   | 13.6          | 22.5          | 32.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 16     | 1078.6 | 0.057767   | 18.8          | 31.2          | 45.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 17     | 1050.4 | 0.041606   | 13.5          | 22.5          | 32.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 18     | 996.8  | 0.039112   | 12.7          | 21.1          | 30.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 19     | 1017.3 | 0.102234   | 33.2          | 55.2          | 80.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 20     | 1054.9 | 0.083707   | 27.2          | 45.2          | 66.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 21     | 1000.8 | 0.101736   | 33.1          | 54.9          | 80.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 22     | 916.3  | 0.176671   | 57.4          | 95.4          | 139.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 23     | 836.1  | 0.168008   | 54.6          | 90.7          | 132.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 8   | 24     | 745.9  | 0.14877    | 48.4          | 80.3          | 117.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 1      | 694.3  | 0.207127   | 67.3          | 111.8         | 163.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 2      | 681.6  | 0.223363   | 72.6          | 120.6         | 176.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 3      | 682.3  | 0.149794   | 48.7          | 80.9          | 118.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 4      | 690.2  | 0.183389   | 59.6          | 99.0          | 144.9         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 5      | 728.6  | 0.249447   | 81.1          | 134.7         | 197.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 6      | 811.3  | 0.250812   | 81.5          | 135.4         | 198.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 7      | 957.1  | 0.273622   | 88.9          | 147.8         | 216.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 8      | 1050.6 | 0.192823   | 62.7          | 104.1         | 152.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 9      | 1044   | 0.136092   | 44.2          | 73.5          | 107.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 10     | 1033.6 | 0.12386    | 40.3          | 66.9          | 97.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 11     | 1016.8 | 0.084676   | 27.5          | 45.7          | 66.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 12     | 1041.2 | 0.054125   | 17.6          | 29.2          | 42.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 13     | 1025.6 | 0.049732   | 16.2          | 26.9          | 39.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 14     | 1042.9 | 0.053228   | 17.3          | 28.7          | 42.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 15     | 1048.8 | 0.03499    | 11.4          | 18.9          | 27.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 16     | 1076.1 | 0.028663   | 9.3           | 15.5          | 22.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 17     | 1092.8 | 0.032056   | 10.4          | 17.3          | 25.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 18     | 1055.7 | 0.132884   | 43.2          | 71.8          | 105.0         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 19     | 1020.3 | 0.127947   | 41.6          | 69.1          | 101.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 20     | 995.4  | 0.107777   | 35.0          | 58.2          | 85.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 21     | 986.4  | 0.128293   | 41.7          | 69.3          | 101.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 22     | 931.4  | 0.275425   | 89.5          | 148.7         | 217.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 23     | 817.3  | 0.256304   | 83.3          | 138.4         | 202.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 9   | 24     | 722.6  | 0.27417    | 89.1          | 148.1         | 216.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 1      | 693.3  | 0.315339   | 102.5         | 170.3         | 249.1         |                    | -                          | -                          | 45.82                      |
| 2020 | 9     | 10  | 2      | 669.8  | 0.368564   | 119.8         | 199.0         | 291.2         |                    | -                          | 19.22                      | 111.37                     |
| 2020 | 9     | 10  | 3      | 654.3  | 0.501167   | 162.9         | 270.6         | 395.9         |                    | -                          | 106.33                     | 231.62                     |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 9     | 10  | 4      | 662.7  | 0.4908     | 159.5         | 265.0         | 387.7         |                    | -                          | 92.33                      | 215.03                     |
| 2020 | 9     | 10  | 5      | 703.8  | 0.482318   | 156.8         | 260.5         | 381.0         |                    | -                          | 46.65                      | 167.23                     |
| 2020 | 9     | 10  | 6      | 814.4  | 0.413712   | 134.5         | 223.4         | 326.8         |                    | -                          | -                          | 2.43                       |
| 2020 | 9     | 10  | 7      | 990.6  | 0.369843   | 120.2         | 199.7         | 292.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 8      | 1044.1 | 0.361983   | 117.6         | 195.5         | 286.0         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 9      | 1077.7 | 0.363832   | 118.2         | 196.5         | 287.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 10     | 1061.8 | 0.373447   | 121.4         | 201.7         | 295.0         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 11     | 1073.5 | 0.484557   | 157.5         | 261.7         | 382.8         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 12     | 1076.8 | 0.491901   | 159.9         | 265.6         | 388.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 13     | 1088.5 | 0.506488   | 164.6         | 273.5         | 400.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 14     | 1059.3 | 0.517355   | 168.1         | 279.4         | 408.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 15     | 1048.9 | 0.442804   | 143.9         | 239.1         | 349.8         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 16     | 1114.4 | 0.457471   | 148.7         | 247.0         | 361.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 17     | 1050.3 | 0.421371   | 136.9         | 227.5         | 332.9         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 18     | 1057   | 0.454773   | 147.8         | 245.6         | 359.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 19     | 1038.3 | 0.47108    | 153.1         | 254.4         | 372.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 20     | 991.4  | 0.542247   | 176.2         | 292.8         | 428.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 21     | 956.7  | 0.376309   | 122.3         | 203.2         | 297.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 22     | 914.7  | 0.332152   | 107.9         | 179.4         | 262.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 23     | 812    | 0.209373   | 68.0          | 113.1         | 165.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 10  | 24     | 724.7  | 0.141841   | 46.1          | 76.6          | 112.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 1      | 693    | 0.16781    | 54.5          | 90.6          | 132.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 2      | 669.1  | 0.202738   | 65.9          | 109.5         | 160.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 3      | 674.8  | 0.108034   | 35.1          | 58.3          | 85.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 4      | 687.1  | 0.070895   | 23.0          | 38.3          | 56.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 5      | 711.6  | 0.062038   | 20.2          | 33.5          | 49.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 6      | 801.3  | 0.025733   | 8.4           | 13.9          | 20.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 7      | 964.2  | 0.032801   | 10.7          | 17.7          | 25.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 8      | 1076.9 | 0.023633   | 7.7           | 12.8          | 18.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 9      | 1066.2 | 0.044737   | 14.5          | 24.2          | 35.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 10     | 1101.7 | 0.059972   | 19.5          | 32.4          | 47.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 11     | 1080.5 | 0.075821   | 24.6          | 40.9          | 59.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 12     | 1086.4 | 0.103369   | 33.6          | 55.8          | 81.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 13     | 1061.3 | 0.146733   | 47.7          | 79.2          | 115.9         |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 14     | 1016.1 | 0.162416   | 52.8          | 87.7          | 128.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 15     | 1030.3 | 0.186573   | 60.6          | 100.7         | 147.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 16     | 1053   | 0.241451   | 78.5          | 130.4         | 190.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 17     | 1080.4 | 0.234491   | 76.2          | 126.6         | 185.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 18     | 965.2  | 0.357562   | 116.2         | 193.1         | 282.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 19     | 953.4  | 0.430539   | 139.9         | 232.5         | 340.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 20     | 991.2  | 0.471513   | 153.2         | 254.6         | 372.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 21     | 911.4  | 0.460493   | 149.7         | 248.7         | 363.8         |                    | -                          | -                          | -                          |
| 2020 | 9     | 11  | 22     | 865.7  | 0.590609   | 191.9         | 318.9         | 466.6         |                    | -                          | -                          | 90.88                      |
| 2020 | 9     | 11  | 23     | 811.3  | 0.630782   | 205.0         | 340.6         | 498.3         |                    | -                          | 19.32                      | 177.02                     |
| 2020 | 9     | 11  | 24     | 736.1  | 0.648089   | 210.6         | 350.0         | 512.0         |                    | -                          | 103.87                     | 265.89                     |

| Year | Month | Day | Period | Load   | Wind     | Wind [MW] | Wind [MW] | Wind [MW] | Min Steam [MW] | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|----------|-----------|-----------|-----------|----------------|-------------------------------|-------------------------------|-------------------------------|
|      |       |     |        |        | Shape    | 325       | 540       | 790       |                |                               |                               |                               |
| 2020 | 9     | 12  | 1      | 689.2  | 0.626563 | 203.6     | 338.3     | 495.0     |                | 4.43                          | 139.14                        | 295.78                        |
| 2020 | 9     | 12  | 2      | 676.8  | 0.604361 | 196.4     | 326.4     | 477.4     |                | 9.62                          | 139.56                        | 290.65                        |
| 2020 | 9     | 12  | 3      | 662.9  | 0.511959 | 166.4     | 276.5     | 404.4     |                | -                             | 103.56                        | 231.55                        |
| 2020 | 9     | 12  | 4      | 641.3  | 0.612836 | 199.2     | 330.9     | 484.1     |                | 47.87                         | 179.63                        | 332.84                        |
| 2020 | 9     | 12  | 5      | 667.2  | 0.651152 | 211.6     | 351.6     | 514.4     |                | 34.42                         | 174.42                        | 337.21                        |
| 2020 | 9     | 12  | 6      | 677.8  | 0.717226 | 233.1     | 387.3     | 566.6     |                | 45.30                         | 199.50                        | 378.81                        |
| 2020 | 9     | 12  | 7      | 760.3  | 0.706658 | 229.7     | 381.6     | 558.3     |                | -                             | 111.30                        | 287.96                        |
| 2020 | 9     | 12  | 8      | 824.4  | 0.637066 | 207.0     | 344.0     | 503.3     |                | -                             | 9.62                          | 168.88                        |
| 2020 | 9     | 12  | 9      | 896.3  | 0.708317 | 230.2     | 382.5     | 559.6     |                | -                             | -                             | 153.27                        |
| 2020 | 9     | 12  | 10     | 916.1  | 0.681489 | 221.5     | 368.0     | 538.4     |                | -                             | -                             | 112.28                        |
| 2020 | 9     | 12  | 11     | 946.8  | 0.685689 | 222.8     | 370.3     | 541.7     |                | -                             | -                             | 84.89                         |
| 2020 | 9     | 12  | 12     | 982.6  | 0.568798 | 184.9     | 307.2     | 449.4     |                | -                             | -                             | -                             |
| 2020 | 9     | 12  | 13     | 928.6  | 0.567744 | 184.5     | 306.6     | 448.5     |                | -                             | -                             | 9.92                          |
| 2020 | 9     | 12  | 14     | 910.7  | 0.615527 | 200.0     | 332.4     | 486.3     |                | -                             | -                             | 65.57                         |
| 2020 | 9     | 12  | 15     | 928.3  | 0.567094 | 184.3     | 306.2     | 448.0     |                | -                             | -                             | 9.70                          |
| 2020 | 9     | 12  | 16     | 936.2  | 0.535138 | 173.9     | 289.0     | 422.8     |                | -                             | -                             | -                             |
| 2020 | 9     | 12  | 17     | 954    | 0.477818 | 155.3     | 258.0     | 377.5     |                | -                             | -                             | -                             |
| 2020 | 9     | 12  | 18     | 958.2  | 0.394027 | 128.1     | 212.8     | 311.3     |                | -                             | -                             | -                             |
| 2020 | 9     | 12  | 19     | 944.6  | 0.404982 | 131.6     | 218.7     | 319.9     |                | -                             | -                             | -                             |
| 2020 | 9     | 12  | 20     | 934    | 0.326826 | 106.2     | 176.5     | 258.2     |                | -                             | -                             | -                             |
| 2020 | 9     | 12  | 21     | 961.2  | 0.295137 | 95.9      | 159.4     | 233.2     |                | -                             | -                             | -                             |
| 2020 | 9     | 12  | 22     | 874.8  | 0.218821 | 71.1      | 118.2     | 172.9     |                | -                             | -                             | -                             |
| 2020 | 9     | 12  | 23     | 780    | 0.200587 | 65.2      | 108.3     | 158.5     |                | -                             | -                             | -                             |
| 2020 | 9     | 12  | 24     | 744.9  | 0.113128 | 36.8      | 61.1      | 89.4      |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 1      | 711.2  | 0.089383 | 29.0      | 48.3      | 70.6      |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 2      | 693.3  | 0.061265 | 19.9      | 33.1      | 48.4      |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 3      | 663    | 0.070707 | 23.0      | 38.2      | 55.9      |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 4      | 648.9  | 0.031845 | 10.3      | 17.2      | 25.2      |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 5      | 655.9  | 0.022062 | 7.2       | 11.9      | 17.4      |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 6      | 676.2  | 0.022737 | 7.4       | 12.3      | 18.0      |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 7      | 726.9  | 0.033451 | 10.9      | 18.1      | 26.4      |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 8      | 787.1  | 0.067378 | 21.9      | 36.4      | 53.2      |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 9      | 878.7  | 0.057187 | 18.6      | 30.9      | 45.2      |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 10     | 969.1  | 0.083158 | 27.0      | 44.9      | 65.7      |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 11     | 968    | 0.086648 | 28.2      | 46.8      | 68.5      |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 12     | 931.9  | 0.100585 | 32.7      | 54.3      | 79.5      |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 13     | 921.6  | 0.11611  | 37.7      | 62.7      | 91.7      |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 14     | 951.7  | 0.178962 | 58.2      | 96.6      | 141.4     |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 15     | 921.9  | 0.218068 | 70.9      | 117.8     | 172.3     |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 16     | 946    | 0.32334  | 105.1     | 174.6     | 255.4     |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 17     | 1014.4 | 0.330401 | 107.4     | 178.4     | 261.0     |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 18     | 945.4  | 0.474798 | 154.3     | 256.4     | 375.1     |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 19     | 1054.5 | 0.439244 | 142.8     | 237.2     | 347.0     |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 20     | 1013.1 | 0.477505 | 155.2     | 257.9     | 377.2     |                | -                             | -                             | -                             |
| 2020 | 9     | 13  | 21     | 962.4  | 0.554207 | 180.1     | 299.3     | 437.8     |                | -                             | -                             | -                             |



| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 9     | 13  | 22     | 852.5  | 0.570234      | 185.3            | 307.9            | 450.5            |                       | -                             | -                             | 87.98                         |
| 2020 | 9     | 13  | 23     | 787.4  | 0.722097      | 234.7            | 389.9            | 570.5            |                       | -                             | 92.53                         | 273.06                        |
| 2020 | 9     | 13  | 24     | 711.2  | 0.667774      | 217.0            | 360.6            | 527.5            |                       | -                             | 139.40                        | 306.34                        |
| 2020 | 9     | 14  | 1      | 692.1  | 0.686393      | 223.1            | 370.7            | 542.3            |                       | 20.98                         | 168.55                        | 340.15                        |
| 2020 | 9     | 14  | 2      | 689.7  | 0.668498      | 217.3            | 361.0            | 528.1            |                       | 17.56                         | 161.29                        | 328.41                        |
| 2020 | 9     | 14  | 3      | 675.5  | 0.678321      | 220.5            | 366.3            | 535.9            |                       | 34.95                         | 180.79                        | 350.37                        |
| 2020 | 9     | 14  | 4      | 683.4  | 0.63956       | 207.9            | 345.4            | 505.3            |                       | 14.46                         | 151.96                        | 311.85                        |
| 2020 | 9     | 14  | 5      | 729.8  | 0.708677      | 230.3            | 382.7            | 559.9            |                       | -                             | 142.89                        | 320.05                        |
| 2020 | 9     | 14  | 6      | 851    | 0.67982       | 220.9            | 367.1            | 537.1            |                       | -                             | 6.10                          | 176.06                        |
| 2020 | 9     | 14  | 7      | 987    | 0.595849      | 193.7            | 321.8            | 470.7            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 8      | 1092.2 | 0.595875      | 193.7            | 321.8            | 470.7            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 9      | 1091.6 | 0.550015      | 178.8            | 297.0            | 434.5            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 10     | 1059.6 | 0.61053       | 198.4            | 329.7            | 482.3            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 11     | 1071.3 | 0.551017      | 179.1            | 297.5            | 435.3            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 12     | 1100.3 | 0.61423       | 199.6            | 331.7            | 485.2            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 13     | 1075.2 | 0.528373      | 171.7            | 285.3            | 417.4            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 14     | 1050.9 | 0.386575      | 125.6            | 208.8            | 305.4            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 15     | 1017.9 | 0.31848       | 103.5            | 172.0            | 251.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 16     | 1061.9 | 0.320121      | 104.0            | 172.9            | 252.9            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 17     | 1118.1 | 0.343929      | 111.8            | 185.7            | 271.7            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 18     | 1075   | 0.337208      | 109.6            | 182.1            | 266.4            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 19     | 1061   | 0.414756      | 134.8            | 224.0            | 327.7            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 20     | 1060.3 | 0.454296      | 147.6            | 245.3            | 358.9            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 21     | 982.3  | 0.446998      | 145.3            | 241.4            | 353.1            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 22     | 908.6  | 0.438445      | 142.5            | 236.8            | 346.4            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 23     | 839.8  | 0.421313      | 136.9            | 227.5            | 332.8            |                       | -                             | -                             | -                             |
| 2020 | 9     | 14  | 24     | 761.9  | 0.474388      | 154.2            | 256.2            | 374.8            |                       | -                             | -                             | 102.87                        |
| 2020 | 9     | 15  | 1      | 717.7  | 0.498484      | 162.0            | 269.2            | 393.8            |                       | -                             | 41.48                         | 166.10                        |
| 2020 | 9     | 15  | 2      | 708.3  | 0.443108      | 144.0            | 239.3            | 350.1            |                       | -                             | 20.98                         | 131.76                        |
| 2020 | 9     | 15  | 3      | 701    | 0.394176      | 128.1            | 212.9            | 311.4            |                       | -                             | 1.85                          | 100.40                        |
| 2020 | 9     | 15  | 4      | 704.2  | 0.402308      | 130.8            | 217.2            | 317.8            |                       | -                             | 3.05                          | 103.62                        |
| 2020 | 9     | 15  | 5      | 743.5  | 0.444085      | 144.3            | 239.8            | 350.8            |                       | -                             | -                             | 97.33                         |
| 2020 | 9     | 15  | 6      | 836.8  | 0.425102      | 138.2            | 229.6            | 335.8            |                       | -                             | -                             | -                             |
| 2020 | 9     | 15  | 7      | 966.8  | 0.38522       | 125.2            | 208.0            | 304.3            |                       | -                             | -                             | -                             |
| 2020 | 9     | 15  | 8      | 1061.1 | 0.331191      | 107.6            | 178.8            | 261.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 15  | 9      | 1105.8 | 0.28437       | 92.4             | 153.6            | 224.7            |                       | -                             | -                             | -                             |
| 2020 | 9     | 15  | 10     | 1073.9 | 0.315072      | 102.4            | 170.1            | 248.9            |                       | -                             | -                             | -                             |
| 2020 | 9     | 15  | 11     | 1041.4 | 0.325937      | 105.9            | 176.0            | 257.5            |                       | -                             | -                             | -                             |
| 2020 | 9     | 15  | 12     | 1072.3 | 0.517287      | 168.1            | 279.3            | 408.7            |                       | -                             | -                             | -                             |
| 2020 | 9     | 15  | 13     | 1077.8 | 0.57547       | 187.0            | 310.8            | 454.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 15  | 14     | 1052   | 0.654711      | 212.8            | 353.5            | 517.2            |                       | -                             | -                             | -                             |
| 2020 | 9     | 15  | 15     | 1069.6 | 0.502435      | 163.3            | 271.3            | 396.9            |                       | -                             | -                             | -                             |
| 2020 | 9     | 15  | 16     | 1099.8 | 0.505665      | 164.3            | 273.1            | 399.5            |                       | -                             | -                             | -                             |
| 2020 | 9     | 15  | 17     | 1082.2 | 0.430647      | 140.0            | 232.5            | 340.2            |                       | -                             | -                             | -                             |
| 2020 | 9     | 15  | 18     | 1053.8 | 0.395907      | 128.7            | 213.8            | 312.8            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 9     | 15  | 19     | 1095.7 | 0.323449   | 105.1         | 174.7         | 255.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 15  | 20     | 1057   | 0.205909   | 66.9          | 111.2         | 162.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 15  | 21     | 1025.8 | 0.235821   | 76.6          | 127.3         | 186.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 15  | 22     | 966    | 0.15674    | 50.9          | 84.6          | 123.8         |                    | -                          | -                          | -                          |
| 2020 | 9     | 15  | 23     | 851.9  | 0.113971   | 37.0          | 61.5          | 90.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 15  | 24     | 762.3  | 0.150087   | 48.8          | 81.0          | 118.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 16  | 1      | 713.7  | 0.129827   | 42.2          | 70.1          | 102.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 16  | 2      | 708.3  | 0.265581   | 86.3          | 143.4         | 209.8         |                    | -                          | -                          | -                          |
| 2020 | 9     | 16  | 3      | 709.7  | 0.385133   | 125.2         | 208.0         | 304.3         |                    | -                          | -                          | 84.55                      |
| 2020 | 9     | 16  | 4      | 717.4  | 0.495939   | 161.2         | 267.8         | 391.8         |                    | -                          | 40.41                      | 164.39                     |
| 2020 | 9     | 16  | 5      | 758.8  | 0.495765   | 161.1         | 267.7         | 391.7         |                    | -                          | -                          | 122.85                     |
| 2020 | 9     | 16  | 6      | 842    | 0.650525   | 211.4         | 351.3         | 513.9         |                    | -                          | -                          | 161.91                     |
| 2020 | 9     | 16  | 7      | 992.7  | 0.831079   | 270.1         | 448.8         | 656.6         |                    | -                          | -                          | 153.85                     |
| 2020 | 9     | 16  | 8      | 1049.4 | 0.837087   | 272.1         | 452.0         | 661.3         |                    | -                          | -                          | 101.90                     |
| 2020 | 9     | 16  | 9      | 1089.8 | 0.861497   | 280.0         | 465.2         | 680.6         |                    | -                          | -                          | 80.78                      |
| 2020 | 9     | 16  | 10     | 1066   | 0.892989   | 290.2         | 482.2         | 705.5         |                    | -                          | -                          | 129.46                     |
| 2020 | 9     | 16  | 11     | 1065.3 | 0.873499   | 283.9         | 471.7         | 690.1         |                    | -                          | -                          | 114.76                     |
| 2020 | 9     | 16  | 12     | 1052.3 | 0.837953   | 272.3         | 452.5         | 662.0         |                    | -                          | -                          | 99.68                      |
| 2020 | 9     | 16  | 13     | 1056   | 0.788278   | 256.2         | 425.7         | 622.7         |                    | -                          | -                          | 56.74                      |
| 2020 | 9     | 16  | 14     | 1081.1 | 0.819565   | 266.4         | 442.6         | 647.5         |                    | -                          | -                          | 56.36                      |
| 2020 | 9     | 16  | 15     | 1045.5 | 0.797891   | 259.3         | 430.9         | 630.3         |                    | -                          | -                          | 74.83                      |
| 2020 | 9     | 16  | 16     | 1103.3 | 0.745451   | 242.3         | 402.5         | 588.9         |                    | -                          | -                          | -                          |
| 2020 | 9     | 16  | 17     | 1075.8 | 0.585752   | 190.4         | 316.3         | 462.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 16  | 18     | 1048.5 | 0.61782    | 200.8         | 333.6         | 488.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 16  | 19     | 1094   | 0.622869   | 202.4         | 336.3         | 492.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 16  | 20     | 1089.9 | 0.694997   | 225.9         | 375.3         | 549.0         |                    | -                          | -                          | -                          |
| 2020 | 9     | 16  | 21     | 1025.2 | 0.740662   | 240.7         | 400.0         | 585.1         |                    | -                          | -                          | 49.92                      |
| 2020 | 9     | 16  | 22     | 924.3  | 0.792679   | 257.6         | 428.0         | 626.2         |                    | -                          | -                          | 191.92                     |
| 2020 | 9     | 16  | 23     | 841.3  | 0.810412   | 263.4         | 437.6         | 640.2         |                    | -                          | 86.32                      | 288.93                     |
| 2020 | 9     | 16  | 24     | 762.8  | 0.757283   | 246.1         | 408.9         | 598.3         |                    | -                          | 136.13                     | 325.45                     |
| 2020 | 9     | 17  | 1      | 724.8  | 0.699179   | 227.2         | 377.6         | 552.4         |                    | -                          | 142.76                     | 317.55                     |
| 2020 | 9     | 17  | 2      | 712    | 0.718276   | 233.4         | 387.9         | 567.4         |                    | 11.44                      | 165.87                     | 345.44                     |
| 2020 | 9     | 17  | 3      | 708.3  | 0.72725    | 236.4         | 392.7         | 574.5         |                    | 18.06                      | 174.41                     | 356.23                     |
| 2020 | 9     | 17  | 4      | 713.5  | 0.716029   | 232.7         | 386.7         | 565.7         |                    | 9.21                       | 163.16                     | 342.16                     |
| 2020 | 9     | 17  | 5      | 746.9  | 0.671528   | 218.2         | 362.6         | 530.5         |                    | -                          | 105.73                     | 273.61                     |
| 2020 | 9     | 17  | 6      | 834.8  | 0.666587   | 216.6         | 360.0         | 526.6         |                    | -                          | 15.16                      | 181.80                     |
| 2020 | 9     | 17  | 7      | 990.3  | 0.59453    | 193.2         | 321.0         | 469.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 8      | 1054.6 | 0.718109   | 233.4         | 387.8         | 567.3         |                    | -                          | -                          | 2.71                       |
| 2020 | 9     | 17  | 9      | 1085.1 | 0.642468   | 208.8         | 346.9         | 507.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 10     | 1057.9 | 0.591062   | 192.1         | 319.2         | 466.9         |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 11     | 1050.8 | 0.538185   | 174.9         | 290.6         | 425.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 12     | 1058.2 | 0.478698   | 155.6         | 258.5         | 378.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 13     | 991.4  | 0.512199   | 166.5         | 276.6         | 404.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 14     | 980.6  | 0.373731   | 121.5         | 201.8         | 295.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 15     | 1012   | 0.3145     | 102.2         | 169.8         | 248.5         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 9     | 17  | 16     | 1079.6 | 0.201599   | 65.5          | 108.9         | 159.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 17     | 1065.8 | 0.142483   | 46.3          | 76.9          | 112.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 18     | 993.5  | 0.128161   | 41.7          | 69.2          | 101.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 19     | 1008.7 | 0.105844   | 34.4          | 57.2          | 83.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 20     | 1041.7 | 0.07961    | 25.9          | 43.0          | 62.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 21     | 1017.7 | 0.054061   | 17.6          | 29.2          | 42.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 22     | 929.1  | 0.085117   | 27.7          | 46.0          | 67.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 23     | 850.1  | 0.071328   | 23.2          | 38.5          | 56.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 17  | 24     | 763.6  | 0.04148    | 13.5          | 22.4          | 32.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 1      | 710.6  | 0.026938   | 8.8           | 14.5          | 21.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 2      | 691.5  | 0.019938   | 6.5           | 10.8          | 15.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 3      | 689.5  | 0.017984   | 5.8           | 9.7           | 14.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 4      | 697.8  | 0.016763   | 5.4           | 9.1           | 13.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 5      | 730    | 0.023343   | 7.6           | 12.6          | 18.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 6      | 835.7  | 0.020652   | 6.7           | 11.2          | 16.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 7      | 963.4  | 0.015801   | 5.1           | 8.5           | 12.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 8      | 1085.7 | 0.012982   | 4.2           | 7.0           | 10.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 9      | 1158.9 | 0.012367   | 4.0           | 6.7           | 9.8           |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 10     | 1125.6 | 0.016831   | 5.5           | 9.1           | 13.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 11     | 1169   | 0.017497   | 5.7           | 9.4           | 13.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 12     | 1163.5 | 0.02167    | 7.0           | 11.7          | 17.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 13     | 1091.8 | 0.022128   | 7.2           | 11.9          | 17.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 14     | 1092.4 | 0.021289   | 6.9           | 11.5          | 16.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 15     | 1092.4 | 0.024438   | 7.9           | 13.2          | 19.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 16     | 1132.3 | 0.02213    | 7.2           | 12.0          | 17.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 17     | 1160.2 | 0.022364   | 7.3           | 12.1          | 17.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 18     | 1074.3 | 0.03632    | 11.8          | 19.6          | 28.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 19     | 1018.8 | 0.050308   | 16.4          | 27.2          | 39.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 20     | 1033.8 | 0.048169   | 15.7          | 26.0          | 38.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 21     | 979.3  | 0.102778   | 33.4          | 55.5          | 81.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 22     | 894.7  | 0.073532   | 23.9          | 39.7          | 58.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 23     | 837.9  | 0.061251   | 19.9          | 33.1          | 48.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 18  | 24     | 778.7  | 0.048519   | 15.8          | 26.2          | 38.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 1      | 728.6  | 0.032274   | 10.5          | 17.4          | 25.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 2      | 707.1  | 0.026559   | 8.6           | 14.3          | 21.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 3      | 697    | 0.027154   | 8.8           | 14.7          | 21.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 4      | 712.7  | 0.020206   | 6.6           | 10.9          | 16.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 5      | 717    | 0.013577   | 4.4           | 7.3           | 10.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 6      | 761.9  | 0.035      | 11.4          | 18.9          | 27.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 7      | 819.8  | 0.058027   | 18.9          | 31.3          | 45.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 8      | 948.8  | 0.066138   | 21.5          | 35.7          | 52.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 9      | 962.2  | 0.080833   | 26.3          | 43.6          | 63.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 10     | 1026.7 | 0.081132   | 26.4          | 43.8          | 64.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 11     | 1013.5 | 0.06926    | 22.5          | 37.4          | 54.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 12     | 991.7  | 0.061843   | 20.1          | 33.4          | 48.9          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 9     | 19  | 13     | 961.4  | 0.112001   | 36.4          | 60.5          | 88.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 14     | 874.9  | 0.119256   | 38.8          | 64.4          | 94.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 15     | 893.1  | 0.142089   | 46.2          | 76.7          | 112.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 16     | 938.9  | 0.14571    | 47.4          | 78.7          | 115.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 17     | 984.1  | 0.100345   | 32.6          | 54.2          | 79.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 18     | 913.1  | 0.152206   | 49.5          | 82.2          | 120.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 19     | 925.3  | 0.172705   | 56.1          | 93.3          | 136.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 20     | 982.2  | 0.144955   | 47.1          | 78.3          | 114.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 21     | 925.2  | 0.158059   | 51.4          | 85.4          | 124.9         |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 22     | 929.4  | 0.16744    | 54.4          | 90.4          | 132.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 23     | 826.2  | 0.201844   | 65.6          | 109.0         | 159.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 19  | 24     | 749.9  | 0.288468   | 93.8          | 155.8         | 227.9         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 1      | 732.4  | 0.319183   | 103.7         | 172.4         | 252.2         |                    | -                          | -                          | 9.75                       |
| 2020 | 9     | 20  | 2      | 704.8  | 0.416134   | 135.2         | 224.7         | 328.7         |                    | -                          | 9.91                       | 113.95                     |
| 2020 | 9     | 20  | 3      | 678.3  | 0.573637   | 186.4         | 309.8         | 453.2         |                    | -                          | 121.46                     | 264.87                     |
| 2020 | 9     | 20  | 4      | 671.4  | 0.599919   | 195.0         | 324.0         | 473.9         |                    | 13.57                      | 142.56                     | 292.54                     |
| 2020 | 9     | 20  | 5      | 677.1  | 0.532431   | 173.0         | 287.5         | 420.6         |                    | -                          | 100.41                     | 233.52                     |
| 2020 | 9     | 20  | 6      | 714.4  | 0.560346   | 182.1         | 302.6         | 442.7         |                    | -                          | 78.19                      | 218.27                     |
| 2020 | 9     | 20  | 7      | 743.3  | 0.453757   | 147.5         | 245.0         | 358.5         |                    | -                          | -                          | 105.17                     |
| 2020 | 9     | 20  | 8      | 847.3  | 0.413354   | 134.3         | 223.2         | 326.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 9      | 933.9  | 0.419178   | 136.2         | 226.4         | 331.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 10     | 941.2  | 0.343965   | 111.8         | 185.7         | 271.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 11     | 945.6  | 0.316908   | 103.0         | 171.1         | 250.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 12     | 986.2  | 0.312792   | 101.7         | 168.9         | 247.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 13     | 984.4  | 0.307139   | 99.8          | 165.9         | 242.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 14     | 905    | 0.286168   | 93.0          | 154.5         | 226.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 15     | 954.4  | 0.305952   | 99.4          | 165.2         | 241.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 16     | 974.9  | 0.371887   | 120.9         | 200.8         | 293.8         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 17     | 1004.2 | 0.296759   | 96.4          | 160.2         | 234.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 18     | 1039   | 0.395173   | 128.4         | 213.4         | 312.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 19     | 1020.2 | 0.427043   | 138.8         | 230.6         | 337.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 20     | 1060   | 0.409852   | 133.2         | 221.3         | 323.8         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 21     | 962.4  | 0.395213   | 128.4         | 213.4         | 312.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 22     | 871.9  | 0.335567   | 109.1         | 181.2         | 265.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 23     | 798    | 0.286977   | 93.3          | 155.0         | 226.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 20  | 24     | 728.8  | 0.297281   | 96.6          | 160.5         | 234.9         |                    | -                          | -                          | -                          |
| 2020 | 9     | 21  | 1      | 684.5  | 0.168511   | 54.8          | 91.0          | 133.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 21  | 2      | 665.2  | 0.222696   | 72.4          | 120.3         | 175.9         |                    | -                          | -                          | 0.73                       |
| 2020 | 9     | 21  | 3      | 656.2  | 0.265175   | 86.2          | 143.2         | 209.5         |                    | -                          | -                          | 43.29                      |
| 2020 | 9     | 21  | 4      | 682.2  | 0.249131   | 81.0          | 134.5         | 196.8         |                    | -                          | -                          | 4.61                       |
| 2020 | 9     | 21  | 5      | 707.5  | 0.213027   | 69.2          | 115.0         | 168.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 21  | 6      | 839    | 0.247226   | 80.3          | 133.5         | 195.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 21  | 7      | 1003.1 | 0.209846   | 68.2          | 113.3         | 165.8         |                    | -                          | -                          | -                          |
| 2020 | 9     | 21  | 8      | 1091.8 | 0.160299   | 52.1          | 86.6          | 126.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 21  | 9      | 1062.9 | 0.203822   | 66.2          | 110.1         | 161.0         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 9     | 21  | 10     | 1061.6 | 0.139689      | 45.4             | 75.4             | 110.4            |                       | -                             | -                             | -                             |
| 2020 | 9     | 21  | 11     | 1130.5 | 0.126167      | 41.0             | 68.1             | 99.7             |                       | -                             | -                             | -                             |
| 2020 | 9     | 21  | 12     | 1085.3 | 0.085172      | 27.7             | 46.0             | 67.3             |                       | -                             | -                             | -                             |
| 2020 | 9     | 21  | 13     | 1100   | 0.103769      | 33.7             | 56.0             | 82.0             |                       | -                             | -                             | -                             |
| 2020 | 9     | 21  | 14     | 1059.1 | 0.117058      | 38.0             | 63.2             | 92.5             |                       | -                             | -                             | -                             |
| 2020 | 9     | 21  | 15     | 1093.6 | 0.150902      | 49.0             | 81.5             | 119.2            |                       | -                             | -                             | -                             |
| 2020 | 9     | 21  | 16     | 1115.5 | 0.130935      | 42.6             | 70.7             | 103.4            |                       | -                             | -                             | -                             |
| 2020 | 9     | 21  | 17     | 1166.6 | 0.100748      | 32.7             | 54.4             | 79.6             |                       | -                             | -                             | -                             |
| 2020 | 9     | 21  | 18     | 1137.8 | 0.147604      | 48.0             | 79.7             | 116.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 21  | 19     | 1113.2 | 0.22336       | 72.6             | 120.6            | 176.5            |                       | -                             | -                             | -                             |
| 2020 | 9     | 21  | 20     | 1095.1 | 0.308194      | 100.2            | 166.4            | 243.5            |                       | -                             | -                             | -                             |
| 2020 | 9     | 21  | 21     | 1030.7 | 0.311645      | 101.3            | 168.3            | 246.2            |                       | -                             | -                             | -                             |
| 2020 | 9     | 21  | 22     | 962.9  | 0.244087      | 79.3             | 131.8            | 192.8            |                       | -                             | -                             | -                             |
| 2020 | 9     | 21  | 23     | 845    | 0.200205      | 65.1             | 108.1            | 158.2            |                       | -                             | -                             | -                             |
| 2020 | 9     | 21  | 24     | 768.1  | 0.147878      | 48.1             | 79.9             | 116.8            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 1      | 734.3  | 0.197268      | 64.1             | 106.5            | 155.8            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 2      | 706.9  | 0.19871       | 64.6             | 107.3            | 157.0            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 3      | 717.3  | 0.187447      | 60.9             | 101.2            | 148.1            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 4      | 714.8  | 0.144646      | 47.0             | 78.1             | 114.3            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 5      | 784.2  | 0.12267       | 39.9             | 66.2             | 96.9             |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 6      | 863    | 0.099667      | 32.4             | 53.8             | 78.7             |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 7      | 1021.4 | 0.052567      | 17.1             | 28.4             | 41.5             |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 8      | 1124   | 0.054967      | 17.9             | 29.7             | 43.4             |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 9      | 1108.2 | 0.063805      | 20.7             | 34.5             | 50.4             |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 10     | 1089.6 | 0.066818      | 21.7             | 36.1             | 52.8             |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 11     | 1044.7 | 0.086649      | 28.2             | 46.8             | 68.5             |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 12     | 1036.9 | 0.09916       | 32.2             | 53.5             | 78.3             |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 13     | 1044.9 | 0.08142       | 26.5             | 44.0             | 64.3             |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 14     | 1026.2 | 0.181388      | 59.0             | 97.9             | 143.3            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 15     | 1019.7 | 0.172235      | 56.0             | 93.0             | 136.1            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 16     | 1044.4 | 0.228569      | 74.3             | 123.4            | 180.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 17     | 1109.8 | 0.252683      | 82.1             | 136.4            | 199.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 18     | 1058.3 | 0.337188      | 109.6            | 182.1            | 266.4            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 19     | 1035   | 0.300635      | 97.7             | 162.3            | 237.5            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 20     | 1028.4 | 0.281266      | 91.4             | 151.9            | 222.2            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 21     | 982.8  | 0.338152      | 109.9            | 182.6            | 267.1            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 22     | 888.7  | 0.160761      | 52.2             | 86.8             | 127.0            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 23     | 812.2  | 0.204606      | 66.5             | 110.5            | 161.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 22  | 24     | 730    | 0.19695       | 64.0             | 106.4            | 155.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 23  | 1      | 689.1  | 0.179842      | 58.4             | 97.1             | 142.1            |                       | -                             | -                             | -                             |
| 2020 | 9     | 23  | 2      | 669.5  | 0.153106      | 49.8             | 82.7             | 121.0            |                       | -                             | -                             | -                             |
| 2020 | 9     | 23  | 3      | 667.2  | 0.149389      | 48.6             | 80.7             | 118.0            |                       | -                             | -                             | -                             |
| 2020 | 9     | 23  | 4      | 679.3  | 0.122726      | 39.9             | 66.3             | 97.0             |                       | -                             | -                             | -                             |
| 2020 | 9     | 23  | 5      | 709.1  | 0.115017      | 37.4             | 62.1             | 90.9             |                       | -                             | -                             | -                             |
| 2020 | 9     | 23  | 6      | 814    | 0.121766      | 39.6             | 65.8             | 96.2             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 9     | 23  | 7      | 969    | 0.086584   | 28.1          | 46.8          | 68.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 8      | 1065.7 | 0.047629   | 15.5          | 25.7          | 37.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 9      | 1096.2 | 0.041809   | 13.6          | 22.6          | 33.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 10     | 1092.1 | 0.051411   | 16.7          | 27.8          | 40.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 11     | 1069.4 | 0.050479   | 16.4          | 27.3          | 39.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 12     | 1054.8 | 0.06167    | 20.0          | 33.3          | 48.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 13     | 1043.5 | 0.074975   | 24.4          | 40.5          | 59.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 14     | 1027.9 | 0.091364   | 29.7          | 49.3          | 72.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 15     | 1010   | 0.116923   | 38.0          | 63.1          | 92.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 16     | 1103.6 | 0.121402   | 39.5          | 65.6          | 95.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 17     | 1122.4 | 0.083094   | 27.0          | 44.9          | 65.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 18     | 1035.6 | 0.093242   | 30.3          | 50.4          | 73.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 19     | 1068.7 | 0.077861   | 25.3          | 42.0          | 61.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 20     | 1073.1 | 0.086074   | 28.0          | 46.5          | 68.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 21     | 1034.8 | 0.103626   | 33.7          | 56.0          | 81.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 22     | 936.1  | 0.068132   | 22.1          | 36.8          | 53.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 23     | 838.4  | 0.071326   | 23.2          | 38.5          | 56.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 23  | 24     | 732.3  | 0.070386   | 22.9          | 38.0          | 55.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 1      | 698.7  | 0.046221   | 15.0          | 25.0          | 36.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 2      | 668.1  | 0.051276   | 16.7          | 27.7          | 40.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 3      | 669.2  | 0.027642   | 9.0           | 14.9          | 21.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 4      | 676.6  | 0.030576   | 9.9           | 16.5          | 24.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 5      | 712.7  | 0.028189   | 9.2           | 15.2          | 22.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 6      | 819.4  | 0.020166   | 6.6           | 10.9          | 15.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 7      | 980.8  | 0.021308   | 6.9           | 11.5          | 16.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 8      | 1030.2 | 0.027823   | 9.0           | 15.0          | 22.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 9      | 1081.4 | 0.038965   | 12.7          | 21.0          | 30.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 10     | 1034.4 | 0.019508   | 6.3           | 10.5          | 15.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 11     | 1024   | 0.040073   | 13.0          | 21.6          | 31.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 12     | 1015.3 | 0.021899   | 7.1           | 11.8          | 17.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 13     | 1044   | 0.015774   | 5.1           | 8.5           | 12.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 14     | 1024.9 | 0.017536   | 5.7           | 9.5           | 13.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 15     | 1041.9 | 0.017126   | 5.6           | 9.2           | 13.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 16     | 1063.1 | 0.010077   | 3.3           | 5.4           | 8.0           |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 17     | 1056   | 0.010777   | 3.5           | 5.8           | 8.5           |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 18     | 1003.2 | 0.011783   | 3.8           | 6.4           | 9.3           |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 19     | 1031.4 | 0.010581   | 3.4           | 5.7           | 8.4           |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 20     | 993    | 0.011751   | 3.8           | 6.3           | 9.3           |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 21     | 960.4  | 0.015693   | 5.1           | 8.5           | 12.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 22     | 883.8  | 0.03328    | 10.8          | 18.0          | 26.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 23     | 816.7  | 0.078958   | 25.7          | 42.6          | 62.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 24  | 24     | 724.6  | 0.067427   | 21.9          | 36.4          | 53.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 1      | 682    | 0.028057   | 9.1           | 15.2          | 22.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 2      | 665.2  | 0.037852   | 12.3          | 20.4          | 29.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 3      | 671.2  | 0.089062   | 28.9          | 48.1          | 70.4          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 9     | 25  | 4      | 672.5  | 0.105877   | 34.4          | 57.2          | 83.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 5      | 715.1  | 0.143069   | 46.5          | 77.3          | 113.0         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 6      | 814.6  | 0.180642   | 58.7          | 97.5          | 142.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 7      | 970.4  | 0.19465    | 63.3          | 105.1         | 153.8         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 8      | 1059.2 | 0.149438   | 48.6          | 80.7          | 118.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 9      | 1054.6 | 0.16697    | 54.3          | 90.2          | 131.9         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 10     | 1049.3 | 0.162661   | 52.9          | 87.8          | 128.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 11     | 1041.4 | 0.205081   | 66.7          | 110.7         | 162.0         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 12     | 1090.5 | 0.219568   | 71.4          | 118.6         | 173.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 13     | 1094   | 0.226746   | 73.7          | 122.4         | 179.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 14     | 1056   | 0.319203   | 103.7         | 172.4         | 252.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 15     | 1040.1 | 0.289164   | 94.0          | 156.1         | 228.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 16     | 1084.2 | 0.263273   | 85.6          | 142.2         | 208.0         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 17     | 1058.5 | 0.243103   | 79.0          | 131.3         | 192.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 18     | 987.7  | 0.428558   | 139.3         | 231.4         | 338.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 19     | 1007.7 | 0.532024   | 172.9         | 287.3         | 420.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 20     | 994.2  | 0.585244   | 190.2         | 316.0         | 462.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 21     | 964    | 0.592377   | 192.5         | 319.9         | 468.0         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 22     | 921.9  | 0.428664   | 139.3         | 231.5         | 338.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 25  | 23     | 889.8  | 0.511906   | 166.4         | 276.4         | 404.4         |                    | -                          | -                          | 4.61                       |
| 2020 | 9     | 25  | 24     | 773.7  | 0.443834   | 144.2         | 239.7         | 350.6         |                    | -                          | -                          | 66.93                      |
| 2020 | 9     | 26  | 1      | 748.4  | 0.419072   | 136.2         | 226.3         | 331.1         |                    | -                          | -                          | 72.67                      |
| 2020 | 9     | 26  | 2      | 694.3  | 0.379072   | 123.2         | 204.7         | 299.5         |                    | -                          | 0.40                       | 95.17                      |
| 2020 | 9     | 26  | 3      | 669.6  | 0.353814   | 115.0         | 191.1         | 279.5         |                    | -                          | 11.46                      | 99.91                      |
| 2020 | 9     | 26  | 4      | 682.7  | 0.329828   | 107.2         | 178.1         | 260.6         |                    | -                          | -                          | 67.86                      |
| 2020 | 9     | 26  | 5      | 676.7  | 0.29338    | 95.3          | 158.4         | 231.8         |                    | -                          | -                          | 45.07                      |
| 2020 | 9     | 26  | 6      | 699.2  | 0.289309   | 94.0          | 156.2         | 228.6         |                    | -                          | -                          | 19.35                      |
| 2020 | 9     | 26  | 7      | 753.8  | 0.229534   | 74.6          | 123.9         | 181.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 8      | 842.7  | 0.189322   | 61.5          | 102.2         | 149.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 9      | 929.5  | 0.156665   | 50.9          | 84.6          | 123.8         |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 10     | 980    | 0.131602   | 42.8          | 71.1          | 104.0         |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 11     | 1035.9 | 0.098741   | 32.1          | 53.3          | 78.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 12     | 1004.3 | 0.146473   | 47.6          | 79.1          | 115.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 13     | 974.4  | 0.150392   | 48.9          | 81.2          | 118.8         |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 14     | 944.3  | 0.204666   | 66.5          | 110.5         | 161.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 15     | 956.2  | 0.127503   | 41.4          | 68.9          | 100.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 16     | 993.3  | 0.123272   | 40.1          | 66.6          | 97.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 17     | 1003.9 | 0.134389   | 43.7          | 72.6          | 106.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 18     | 1003.1 | 0.109387   | 35.6          | 59.1          | 86.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 19     | 1028.2 | 0.110243   | 35.8          | 59.5          | 87.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 20     | 991.3  | 0.105284   | 34.2          | 56.9          | 83.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 21     | 1002.5 | 0.059602   | 19.4          | 32.2          | 47.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 22     | 900.9  | 0.062166   | 20.2          | 33.6          | 49.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 23     | 811.9  | 0.067564   | 22.0          | 36.5          | 53.4          |                    | -                          | -                          | -                          |
| 2020 | 9     | 26  | 24     | 760.6  | 0.057267   | 18.6          | 30.9          | 45.2          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 9     | 27  | 1      | 732.6  | 0.02742    | 8.9           | 14.8          | 21.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 2      | 713.7  | 0.034072   | 11.1          | 18.4          | 26.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 3      | 689.3  | 0.04783    | 15.5          | 25.8          | 37.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 4      | 672.4  | 0.078814   | 25.6          | 42.6          | 62.3          |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 5      | 690.5  | 0.108958   | 35.4          | 58.8          | 86.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 6      | 694.9  | 0.200837   | 65.3          | 108.5         | 158.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 7      | 715.5  | 0.162316   | 52.8          | 87.7          | 128.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 8      | 824.7  | 0.184685   | 60.0          | 99.7          | 145.9         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 9      | 949.5  | 0.227621   | 74.0          | 122.9         | 179.8         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 10     | 984.8  | 0.37926    | 123.3         | 204.8         | 299.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 11     | 950.1  | 0.435106   | 141.4         | 235.0         | 343.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 12     | 950.1  | 0.561092   | 182.4         | 303.0         | 443.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 13     | 932.7  | 0.524104   | 170.3         | 283.0         | 414.0         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 14     | 899.2  | 0.477919   | 155.3         | 258.1         | 377.6         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 15     | 900.4  | 0.443171   | 144.0         | 239.3         | 350.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 16     | 946.9  | 0.416674   | 135.4         | 225.0         | 329.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 17     | 950.3  | 0.385191   | 125.2         | 208.0         | 304.3         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 18     | 884.7  | 0.283404   | 92.1          | 153.0         | 223.9         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 19     | 971.4  | 0.350775   | 114.0         | 189.4         | 277.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 20     | 973.1  | 0.366951   | 119.3         | 198.2         | 289.9         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 21     | 948.4  | 0.305924   | 99.4          | 165.2         | 241.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 22     | 855.2  | 0.251716   | 81.8          | 135.9         | 198.9         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 23     | 811.9  | 0.194121   | 63.1          | 104.8         | 153.4         |                    | -                          | -                          | -                          |
| 2020 | 9     | 27  | 24     | 716.9  | 0.143674   | 46.7          | 77.6          | 113.5         |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 1      | 678.7  | 0.142005   | 46.2          | 76.7          | 112.2         |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 2      | 685.5  | 0.106057   | 34.5          | 57.3          | 83.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 3      | 671.2  | 0.087512   | 28.4          | 47.3          | 69.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 4      | 676.4  | 0.070548   | 22.9          | 38.1          | 55.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 5      | 718.3  | 0.056687   | 18.4          | 30.6          | 44.8          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 6      | 821.1  | 0.057137   | 18.6          | 30.9          | 45.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 7      | 1000.2 | 0.045559   | 14.8          | 24.6          | 36.0          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 8      | 1071   | 0.032517   | 10.6          | 17.6          | 25.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 9      | 1040.6 | 0.015945   | 5.2           | 8.6           | 12.6          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 10     | 1013.5 | 0.009995   | 3.2           | 5.4           | 7.9           |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 11     | 1028.3 | 0.012964   | 4.2           | 7.0           | 10.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 12     | 1026   | 0.016616   | 5.4           | 9.0           | 13.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 13     | 1036.5 | 0.017293   | 5.6           | 9.3           | 13.7          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 14     | 972.8  | 0.019179   | 6.2           | 10.4          | 15.2          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 15     | 1022.7 | 0.028932   | 9.4           | 15.6          | 22.9          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 16     | 1052.6 | 0.066478   | 21.6          | 35.9          | 52.5          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 17     | 1055   | 0.067179   | 21.8          | 36.3          | 53.1          |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 18     | 1002.3 | 0.151996   | 49.4          | 82.1          | 120.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 19     | 1037.4 | 0.38437    | 124.9         | 207.6         | 303.7         |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 20     | 1012.6 | 0.477301   | 155.1         | 257.7         | 377.1         |                    | -                          | -                          | -                          |
| 2020 | 9     | 28  | 21     | 980.3  | 0.555045   | 180.4         | 299.7         | 438.5         |                    | -                          | -                          | -                          |



| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 9     | 28  | 22     | 884.9  | 0.595606      | 193.6            | 321.6            | 470.5            |                       | -                             | -                             | 75.63                         |
| 2020 | 9     | 28  | 23     | 808.7  | 0.581982      | 189.1            | 314.3            | 459.8            |                       | -                             | -                             | 141.07                        |
| 2020 | 9     | 28  | 24     | 732.5  | 0.579288      | 188.3            | 312.8            | 457.6            |                       | -                             | 70.32                         | 215.14                        |
| 2020 | 9     | 29  | 1      | 686.7  | 0.584466      | 190.0            | 315.6            | 461.7            |                       | -                             | 118.91                        | 265.03                        |
| 2020 | 9     | 29  | 2      | 653.6  | 0.562899      | 182.9            | 304.0            | 444.7            |                       | 19.34                         | 140.37                        | 281.09                        |
| 2020 | 9     | 29  | 3      | 658.2  | 0.562593      | 182.8            | 303.8            | 444.4            |                       | 14.64                         | 135.60                        | 276.25                        |
| 2020 | 9     | 29  | 4      | 664.5  | 0.486163      | 158.0            | 262.5            | 384.1            |                       | -                             | 88.03                         | 209.57                        |
| 2020 | 9     | 29  | 5      | 710.2  | 0.50825       | 165.2            | 274.5            | 401.5            |                       | -                             | 54.26                         | 181.32                        |
| 2020 | 9     | 29  | 6      | 834.1  | 0.511651      | 166.3            | 276.3            | 404.2            |                       | -                             | -                             | 60.10                         |
| 2020 | 9     | 29  | 7      | 988.3  | 0.502449      | 163.3            | 271.3            | 396.9            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 8      | 1046.2 | 0.475709      | 154.6            | 256.9            | 375.8            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 9      | 1054   | 0.455891      | 148.2            | 246.2            | 360.2            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 10     | 1096.6 | 0.390429      | 126.9            | 210.8            | 308.4            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 11     | 1058.9 | 0.351768      | 114.3            | 190.0            | 277.9            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 12     | 1097.5 | 0.366463      | 119.1            | 197.9            | 289.5            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 13     | 1098.1 | 0.329537      | 107.1            | 178.0            | 260.3            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 14     | 1034.4 | 0.286241      | 93.0             | 154.6            | 226.1            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 15     | 1101.2 | 0.25315       | 82.3             | 136.7            | 200.0            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 16     | 1165.8 | 0.348811      | 113.4            | 188.4            | 275.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 17     | 1138.5 | 0.39774       | 129.3            | 214.8            | 314.2            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 18     | 1056.9 | 0.459409      | 149.3            | 248.1            | 362.9            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 19     | 1092.1 | 0.483554      | 157.2            | 261.1            | 382.0            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 20     | 1091.4 | 0.629368      | 204.5            | 339.9            | 497.2            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 21     | 1050.3 | 0.69858       | 227.0            | 377.2            | 551.9            |                       | -                             | -                             | -                             |
| 2020 | 9     | 29  | 22     | 929    | 0.718226      | 233.4            | 387.8            | 567.4            |                       | -                             | -                             | 128.40                        |
| 2020 | 9     | 29  | 23     | 859.2  | 0.638337      | 207.5            | 344.7            | 504.3            |                       | -                             | -                             | 135.09                        |
| 2020 | 9     | 29  | 24     | 744.3  | 0.725513      | 235.8            | 391.8            | 573.2            |                       | -                             | 137.48                        | 318.86                        |
| 2020 | 9     | 30  | 1      | 720.5  | 0.73775       | 239.8            | 398.4            | 582.8            |                       | 9.27                          | 167.89                        | 352.32                        |
| 2020 | 9     | 30  | 2      | 695.5  | 0.778271      | 252.9            | 420.3            | 614.8            |                       | 47.44                         | 214.77                        | 409.33                        |
| 2020 | 9     | 30  | 3      | 688    | 0.820055      | 266.5            | 442.8            | 647.8            |                       | 68.52                         | 244.83                        | 449.84                        |
| 2020 | 9     | 30  | 4      | 700.1  | 0.796424      | 258.8            | 430.1            | 629.2            |                       | 48.74                         | 219.97                        | 419.07                        |
| 2020 | 9     | 30  | 5      | 732.3  | 0.775232      | 252.0            | 418.6            | 612.4            |                       | 9.65                          | 176.33                        | 370.13                        |
| 2020 | 9     | 30  | 6      | 835.3  | 0.786077      | 255.5            | 424.5            | 621.0            |                       | -                             | 79.18                         | 275.70                        |
| 2020 | 9     | 30  | 7      | 980.1  | 0.741764      | 241.1            | 400.6            | 586.0            |                       | -                             | -                             | 95.89                         |
| 2020 | 9     | 30  | 8      | 1087.1 | 0.700525      | 227.7            | 378.3            | 553.4            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 9      | 1132.5 | 0.742409      | 241.3            | 400.9            | 586.5            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 10     | 1197   | 0.732525      | 238.1            | 395.6            | 578.7            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 11     | 1160.9 | 0.673923      | 219.0            | 363.9            | 532.4            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 12     | 1167.4 | 0.715904      | 232.7            | 386.6            | 565.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 13     | 1125.7 | 0.700166      | 227.6            | 378.1            | 553.1            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 14     | 1093.1 | 0.65251       | 212.1            | 352.4            | 515.5            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 15     | 1098.2 | 0.685966      | 222.9            | 370.4            | 541.9            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 16     | 1118.4 | 0.598321      | 194.5            | 323.1            | 472.7            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 17     | 1100   | 0.584065      | 189.8            | 315.4            | 461.4            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 18     | 1047.8 | 0.512941      | 166.7            | 277.0            | 405.2            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 9     | 30  | 19     | 1115.8 | 0.598185      | 194.4            | 323.0            | 472.6            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 20     | 1070.1 | 0.563736      | 183.2            | 304.4            | 445.4            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 21     | 1013.2 | 0.557979      | 181.3            | 301.3            | 440.8            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 22     | 927.7  | 0.458106      | 148.9            | 247.4            | 361.9            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 23     | 850    | 0.280439      | 91.1             | 151.4            | 221.5            |                       | -                             | -                             | -                             |
| 2020 | 9     | 30  | 24     | 756.4  | 0.230523      | 74.9             | 124.5            | 182.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 1      | 706.7  | 0.119858      | 39.0             | 64.7             | 94.7             |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 2      | 696.8  | 0.065247      | 21.2             | 35.2             | 51.5             |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 3      | 683.7  | 0.084606      | 27.5             | 45.7             | 66.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 4      | 708.3  | 0.107294      | 34.9             | 57.9             | 84.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 5      | 757.9  | 0.086503      | 28.1             | 46.7             | 68.3             |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 6      | 853.1  | 0.123061      | 40.0             | 66.5             | 97.2             |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 7      | 1002.9 | 0.197513      | 64.2             | 106.7            | 156.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 8      | 1074   | 0.236252      | 76.8             | 127.6            | 186.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 9      | 1100.4 | 0.167046      | 54.3             | 90.2             | 132.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 10     | 1115.1 | 0.220104      | 71.5             | 118.9            | 173.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 11     | 1139.9 | 0.183234      | 59.6             | 98.9             | 144.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 12     | 1105.1 | 0.202982      | 66.0             | 109.6            | 160.4            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 13     | 1098.5 | 0.198873      | 64.6             | 107.4            | 157.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 14     | 1062.9 | 0.39985       | 130.0            | 215.9            | 315.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 15     | 1098.3 | 0.438244      | 142.4            | 236.7            | 346.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 16     | 1139.2 | 0.501216      | 162.9            | 270.7            | 396.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 17     | 1103.4 | 0.608357      | 197.7            | 328.5            | 480.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 18     | 1074.9 | 0.593241      | 192.8            | 320.4            | 468.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 19     | 1094.5 | 0.44845       | 145.7            | 242.2            | 354.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 20     | 1106.6 | 0.394266      | 128.1            | 212.9            | 311.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 21     | 1079.3 | 0.265458      | 86.3             | 143.3            | 209.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 22     | 1003.9 | 0.186077      | 60.5             | 100.5            | 147.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 23     | 914.9  | 0.164022      | 53.3             | 88.6             | 129.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 1   | 24     | 795.6  | 0.207659      | 67.5             | 112.1            | 164.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 1      | 738.6  | 0.163164      | 53.0             | 88.1             | 128.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 2      | 715.5  | 0.16532       | 53.7             | 89.3             | 130.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 3      | 702.9  | 0.131927      | 42.9             | 71.2             | 104.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 4      | 713.4  | 0.129219      | 42.0             | 69.8             | 102.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 5      | 754.2  | 0.144393      | 46.9             | 78.0             | 114.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 6      | 832    | 0.135659      | 44.1             | 73.3             | 107.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 7      | 952.6  | 0.100225      | 32.6             | 54.1             | 79.2             |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 8      | 1121.3 | 0.112509      | 36.6             | 60.8             | 88.9             |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 9      | 1128.1 | 0.133635      | 43.4             | 72.2             | 105.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 10     | 1138.9 | 0.199556      | 64.9             | 107.8            | 157.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 11     | 1128.9 | 0.214198      | 69.6             | 115.7            | 169.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 12     | 1146   | 0.173125      | 56.3             | 93.5             | 136.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 13     | 1137.5 | 0.187039      | 60.8             | 101.0            | 147.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 14     | 1116.7 | 0.176028      | 57.2             | 95.1             | 139.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 15     | 1100.9 | 0.195251      | 63.5             | 105.4            | 154.2            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 10    | 2   | 16     | 1068   | 0.273337      | 88.8             | 147.6            | 215.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 17     | 1131.9 | 0.32371       | 105.2            | 174.8            | 255.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 18     | 1050.9 | 0.33009       | 107.3            | 178.2            | 260.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 19     | 1058.8 | 0.38204       | 124.2            | 206.3            | 301.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 20     | 1045.6 | 0.456308      | 148.3            | 246.4            | 360.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 21     | 1013.5 | 0.301061      | 97.8             | 162.6            | 237.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 22     | 945.1  | 0.270732      | 88.0             | 146.2            | 213.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 23     | 912.8  | 0.256978      | 83.5             | 138.8            | 203.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 2   | 24     | 830.1  | 0.227024      | 73.8             | 122.6            | 179.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 1      | 753.6  | 0.173067      | 56.2             | 93.5             | 136.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 2      | 728.2  | 0.203363      | 66.1             | 109.8            | 160.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 3      | 693.1  | 0.177776      | 57.8             | 96.0             | 140.4            |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 4      | 692.2  | 0.152485      | 49.6             | 82.3             | 120.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 5      | 696.1  | 0.10879       | 35.4             | 58.7             | 85.9             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 6      | 728.2  | 0.056554      | 18.4             | 30.5             | 44.7             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 7      | 791.2  | 0.038816      | 12.6             | 21.0             | 30.7             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 8      | 868.2  | 0.031299      | 10.2             | 16.9             | 24.7             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 9      | 896.5  | 0.029904      | 9.7              | 16.1             | 23.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 10     | 917.5  | 0.029265      | 9.5              | 15.8             | 23.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 11     | 960    | 0.037298      | 12.1             | 20.1             | 29.5             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 12     | 987.2  | 0.045366      | 14.7             | 24.5             | 35.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 13     | 952.1  | 0.069271      | 22.5             | 37.4             | 54.7             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 14     | 896.5  | 0.058174      | 18.9             | 31.4             | 46.0             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 15     | 940.3  | 0.037438      | 12.2             | 20.2             | 29.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 16     | 977.2  | 0.024238      | 7.9              | 13.1             | 19.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 17     | 973.4  | 0.023459      | 7.6              | 12.7             | 18.5             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 18     | 937    | 0.045294      | 14.7             | 24.5             | 35.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 19     | 943.8  | 0.034991      | 11.4             | 18.9             | 27.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 20     | 953    | 0.040686      | 13.2             | 22.0             | 32.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 21     | 912.4  | 0.036309      | 11.8             | 19.6             | 28.7             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 22     | 889    | 0.026705      | 8.7              | 14.4             | 21.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 23     | 827.6  | 0.029567      | 9.6              | 16.0             | 23.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 3   | 24     | 757.9  | 0.039278      | 12.8             | 21.2             | 31.0             |                       | -                             | -                             | -                             |
| 2020 | 10    | 4   | 1      | 720.2  | 0.042309      | 13.8             | 22.8             | 33.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 4   | 2      | 696.7  | 0.03641       | 11.8             | 19.7             | 28.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 4   | 3      | 683    | 0.043998      | 14.3             | 23.8             | 34.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 4   | 4      | 666.3  | 0.040599      | 13.2             | 21.9             | 32.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 4   | 5      | 670.5  | 0.047364      | 15.4             | 25.6             | 37.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 4   | 6      | 691.5  | 0.055712      | 18.1             | 30.1             | 44.0             |                       | -                             | -                             | -                             |
| 2020 | 10    | 4   | 7      | 735.6  | 0.070016      | 22.8             | 37.8             | 55.3             |                       | -                             | -                             | -                             |
| 2020 | 10    | 4   | 8      | 852.6  | 0.077642      | 25.2             | 41.9             | 61.3             |                       | -                             | -                             | -                             |
| 2020 | 10    | 4   | 9      | 897.6  | 0.077936      | 25.3             | 42.1             | 61.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 4   | 10     | 937.1  | 0.055323      | 18.0             | 29.9             | 43.7             |                       | -                             | -                             | -                             |
| 2020 | 10    | 4   | 11     | 950.6  | 0.082519      | 26.8             | 44.6             | 65.2             |                       | -                             | -                             | -                             |
| 2020 | 10    | 4   | 12     | 916    | 0.095009      | 30.9             | 51.3             | 75.1             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 10    | 4   | 13     | 877.1  | 0.104215   | 33.9          | 56.3          | 82.3          |                    | -                          | -                          | -                          |
| 2020 | 10    | 4   | 14     | 914.8  | 0.136648   | 44.4          | 73.8          | 108.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 4   | 15     | 888.7  | 0.188164   | 61.2          | 101.6         | 148.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 4   | 16     | 924.1  | 0.212658   | 69.1          | 114.8         | 168.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 4   | 17     | 939.4  | 0.234998   | 76.4          | 126.9         | 185.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 4   | 18     | 952.8  | 0.216881   | 70.5          | 117.1         | 171.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 4   | 19     | 1004.9 | 0.229888   | 74.7          | 124.1         | 181.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 4   | 20     | 935.2  | 0.183111   | 59.5          | 98.9          | 144.7         |                    | -                          | -                          | -                          |
| 2020 | 10    | 4   | 21     | 948.7  | 0.235418   | 76.5          | 127.1         | 186.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 4   | 22     | 863.1  | 0.255547   | 83.1          | 138.0         | 201.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 4   | 23     | 757.3  | 0.383191   | 124.5         | 206.9         | 302.7         |                    | -                          | -                          | 35.42                      |
| 2020 | 10    | 4   | 24     | 687.2  | 0.346207   | 112.5         | 187.0         | 273.5         |                    | -                          | -                          | 76.30                      |
| 2020 | 10    | 5   | 1      | 667.3  | 0.516782   | 168.0         | 279.1         | 408.3         |                    | -                          | 101.76                     | 230.96                     |
| 2020 | 10    | 5   | 2      | 660.3  | 0.627032   | 203.8         | 338.6         | 495.4         |                    | 33.49                      | 168.30                     | 325.06                     |
| 2020 | 10    | 5   | 3      | 653.9  | 0.714637   | 232.3         | 385.9         | 564.6         |                    | 68.36                      | 222.00                     | 400.66                     |
| 2020 | 10    | 5   | 4      | 669.4  | 0.769133   | 250.0         | 415.3         | 607.6         |                    | 70.57                      | 235.93                     | 428.21                     |
| 2020 | 10    | 5   | 5      | 716.3  | 0.889079   | 289.0         | 480.1         | 702.4         |                    | 62.65                      | 253.80                     | 476.07                     |
| 2020 | 10    | 5   | 6      | 794.4  | 0.894492   | 290.7         | 483.0         | 706.6         |                    | -                          | 178.63                     | 402.25                     |
| 2020 | 10    | 5   | 7      | 946.1  | 0.866545   | 281.6         | 467.9         | 684.6         |                    | -                          | 11.83                      | 228.47                     |
| 2020 | 10    | 5   | 8      | 1022.8 | 0.83432    | 271.2         | 450.5         | 659.1         |                    | -                          | -                          | 126.31                     |
| 2020 | 10    | 5   | 9      | 1023   | 0.792498   | 257.6         | 427.9         | 626.1         |                    | -                          | -                          | 93.07                      |
| 2020 | 10    | 5   | 10     | 1026.4 | 0.792298   | 257.5         | 427.8         | 625.9         |                    | -                          | -                          | 89.52                      |
| 2020 | 10    | 5   | 11     | 993    | 0.836042   | 271.7         | 451.5         | 660.5         |                    | -                          | -                          | 157.47                     |
| 2020 | 10    | 5   | 12     | 1050.2 | 0.870189   | 282.8         | 469.9         | 687.4         |                    | -                          | -                          | 127.25                     |
| 2020 | 10    | 5   | 13     | 1002.1 | 0.852009   | 276.9         | 460.1         | 673.1         |                    | -                          | -                          | 160.99                     |
| 2020 | 10    | 5   | 14     | 994.7  | 0.869762   | 282.7         | 469.7         | 687.1         |                    | -                          | -                          | 182.41                     |
| 2020 | 10    | 5   | 15     | 993.4  | 0.726827   | 236.2         | 392.5         | 574.2         |                    | -                          | -                          | 70.79                      |
| 2020 | 10    | 5   | 16     | 1003.6 | 0.845426   | 274.8         | 456.5         | 667.9         |                    | -                          | -                          | 154.29                     |
| 2020 | 10    | 5   | 17     | 1038.5 | 0.829528   | 269.6         | 447.9         | 655.3         |                    | -                          | -                          | 106.83                     |
| 2020 | 10    | 5   | 18     | 1044.6 | 0.823108   | 267.5         | 444.5         | 650.3         |                    | -                          | -                          | 95.66                      |
| 2020 | 10    | 5   | 19     | 1107.1 | 0.822937   | 267.5         | 444.4         | 650.1         |                    | -                          | -                          | 33.02                      |
| 2020 | 10    | 5   | 20     | 1059.3 | 0.842144   | 273.7         | 454.8         | 665.3         |                    | -                          | -                          | 95.99                      |
| 2020 | 10    | 5   | 21     | 1032.9 | 0.825613   | 268.3         | 445.8         | 652.2         |                    | -                          | -                          | 109.33                     |
| 2020 | 10    | 5   | 22     | 918.4  | 0.808405   | 262.7         | 436.5         | 638.6         |                    | -                          | 8.14                       | 210.24                     |
| 2020 | 10    | 5   | 23     | 836.2  | 0.817234   | 265.6         | 441.3         | 645.6         |                    | -                          | 95.11                      | 299.41                     |
| 2020 | 10    | 5   | 24     | 763.9  | 0.778533   | 253.0         | 420.4         | 615.0         |                    | -                          | 146.51                     | 341.14                     |
| 2020 | 10    | 6   | 1      | 715    | 0.799961   | 260.0         | 432.0         | 632.0         |                    | 34.99                      | 206.98                     | 406.97                     |
| 2020 | 10    | 6   | 2      | 696.4  | 0.765037   | 248.6         | 413.1         | 604.4         |                    | 42.24                      | 206.72                     | 397.98                     |
| 2020 | 10    | 6   | 3      | 688    | 0.797027   | 259.0         | 430.4         | 629.7         |                    | 61.03                      | 232.39                     | 431.65                     |
| 2020 | 10    | 6   | 4      | 697.7  | 0.75422    | 245.1         | 407.3         | 595.8         |                    | 37.42                      | 199.58                     | 388.13                     |
| 2020 | 10    | 6   | 5      | 731.3  | 0.768286   | 249.7         | 414.9         | 606.9         |                    | 8.39                       | 173.57                     | 365.65                     |
| 2020 | 10    | 6   | 6      | 816.9  | 0.786476   | 255.6         | 424.7         | 621.3         |                    | -                          | 97.80                      | 294.42                     |
| 2020 | 10    | 6   | 7      | 971.4  | 0.706366   | 229.6         | 381.4         | 558.0         |                    | -                          | -                          | 76.63                      |
| 2020 | 10    | 6   | 8      | 1064.2 | 0.751307   | 244.2         | 405.7         | 593.5         |                    | -                          | -                          | 19.33                      |
| 2020 | 10    | 6   | 9      | 1044   | 0.713625   | 231.9         | 385.4         | 563.8         |                    | -                          | -                          | 9.76                       |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 10    | 6   | 10     | 1060.5 | 0.84945    | 276.1         | 458.7         | 671.1         |                    | -                          | -                          | 100.57                     |
| 2020 | 10    | 6   | 11     | 1082.5 | 0.842041   | 273.7         | 454.7         | 665.2         |                    | -                          | -                          | 72.71                      |
| 2020 | 10    | 6   | 12     | 1067.7 | 0.845897   | 274.9         | 456.8         | 668.3         |                    | -                          | -                          | 90.56                      |
| 2020 | 10    | 6   | 13     | 1043.7 | 0.887943   | 288.6         | 479.5         | 701.5         |                    | -                          | -                          | 147.78                     |
| 2020 | 10    | 6   | 14     | 1012   | 0.82597    | 268.4         | 446.0         | 652.5         |                    | -                          | -                          | 130.52                     |
| 2020 | 10    | 6   | 15     | 982.5  | 0.880681   | 286.2         | 475.6         | 695.7         |                    | -                          | -                          | 203.24                     |
| 2020 | 10    | 6   | 16     | 1028.1 | 0.872278   | 283.5         | 471.0         | 689.1         |                    | -                          | -                          | 151.00                     |
| 2020 | 10    | 6   | 17     | 1034.2 | 0.850504   | 276.4         | 459.3         | 671.9         |                    | -                          | -                          | 127.70                     |
| 2020 | 10    | 6   | 18     | 1040   | 0.869042   | 282.4         | 469.3         | 686.5         |                    | -                          | -                          | 136.54                     |
| 2020 | 10    | 6   | 19     | 1079.5 | 0.799303   | 259.8         | 431.6         | 631.4         |                    | -                          | -                          | 41.95                      |
| 2020 | 10    | 6   | 20     | 1054.8 | 0.801417   | 260.5         | 432.8         | 633.1         |                    | -                          | -                          | 68.32                      |
| 2020 | 10    | 6   | 21     | 982.1  | 0.73064    | 237.5         | 394.5         | 577.2         |                    | -                          | -                          | 85.11                      |
| 2020 | 10    | 6   | 22     | 887.5  | 0.66273    | 215.4         | 357.9         | 523.6         |                    | -                          | -                          | 126.06                     |
| 2020 | 10    | 6   | 23     | 822    | 0.637655   | 207.2         | 344.3         | 503.7         |                    | -                          | 12.33                      | 171.75                     |
| 2020 | 10    | 6   | 24     | 745.8  | 0.630387   | 204.9         | 340.4         | 498.0         |                    | -                          | 84.61                      | 242.21                     |
| 2020 | 10    | 7   | 1      | 697.7  | 0.488645   | 158.8         | 263.9         | 386.0         |                    | -                          | 56.17                      | 178.33                     |
| 2020 | 10    | 7   | 2      | 677.4  | 0.450549   | 146.4         | 243.3         | 355.9         |                    | -                          | 55.90                      | 168.53                     |
| 2020 | 10    | 7   | 3      | 679.5  | 0.544095   | 176.8         | 293.8         | 429.8         |                    | -                          | 104.31                     | 240.34                     |
| 2020 | 10    | 7   | 4      | 684    | 0.559884   | 182.0         | 302.3         | 442.3         |                    | -                          | 108.34                     | 248.31                     |
| 2020 | 10    | 7   | 5      | 739.9  | 0.502625   | 163.4         | 271.4         | 397.1         |                    | -                          | 21.52                      | 147.17                     |
| 2020 | 10    | 7   | 6      | 818.1  | 0.547794   | 178.0         | 295.8         | 432.8         |                    | -                          | -                          | 104.66                     |
| 2020 | 10    | 7   | 7      | 987.9  | 0.46828    | 152.2         | 252.9         | 369.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 8      | 1089.3 | 0.473013   | 153.7         | 255.4         | 373.7         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 9      | 1079.4 | 0.452953   | 147.2         | 244.6         | 357.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 10     | 1064.3 | 0.25434    | 82.7          | 137.3         | 200.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 11     | 1080.5 | 0.391526   | 127.2         | 211.4         | 309.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 12     | 1069.3 | 0.351175   | 114.1         | 189.6         | 277.4         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 13     | 1060.9 | 0.382926   | 124.5         | 206.8         | 302.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 14     | 1036.1 | 0.302919   | 98.4          | 163.6         | 239.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 15     | 1047.2 | 0.294936   | 95.9          | 159.3         | 233.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 16     | 1050.7 | 0.248197   | 80.7          | 134.0         | 196.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 17     | 1053.9 | 0.163598   | 53.2          | 88.3          | 129.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 18     | 1053.3 | 0.188057   | 61.1          | 101.6         | 148.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 19     | 1108.8 | 0.203232   | 66.1          | 109.7         | 160.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 20     | 1042.3 | 0.331391   | 107.7         | 179.0         | 261.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 21     | 990    | 0.468255   | 152.2         | 252.9         | 369.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 22     | 926.8  | 0.465806   | 151.4         | 251.5         | 368.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 7   | 23     | 854.3  | 0.46492    | 151.1         | 251.1         | 367.3         |                    | -                          | -                          | 2.99                       |
| 2020 | 10    | 7   | 24     | 736.7  | 0.53282    | 173.2         | 287.7         | 420.9         |                    | -                          | 41.02                      | 174.23                     |
| 2020 | 10    | 8   | 1      | 701.7  | 0.547782   | 178.0         | 295.8         | 432.7         |                    | -                          | 84.10                      | 221.05                     |
| 2020 | 10    | 8   | 2      | 678.6  | 0.641349   | 208.4         | 346.3         | 506.7         |                    | 19.84                      | 157.73                     | 318.07                     |
| 2020 | 10    | 8   | 3      | 683.4  | 0.680121   | 221.0         | 367.3         | 537.3         |                    | 27.64                      | 173.87                     | 343.90                     |
| 2020 | 10    | 8   | 4      | 678.1  | 0.701915   | 228.1         | 379.0         | 554.5         |                    | 40.02                      | 190.93                     | 366.41                     |
| 2020 | 10    | 8   | 5      | 702.7  | 0.76915    | 250.0         | 415.3         | 607.6         |                    | 37.27                      | 202.64                     | 394.93                     |
| 2020 | 10    | 8   | 6      | 814.5  | 0.751507   | 244.2         | 405.8         | 593.7         |                    | -                          | 81.31                      | 269.19                     |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 10    | 8   | 7      | 982.4  | 0.797592   | 259.2         | 430.7         | 630.1         |                    | -                          | -                          | 137.70                     |
| 2020 | 10    | 8   | 8      | 1086   | 0.631749   | 205.3         | 341.1         | 499.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 8   | 9      | 1104.9 | 0.483155   | 157.0         | 260.9         | 381.7         |                    | -                          | -                          | -                          |
| 2020 | 10    | 8   | 10     | 1083.8 | 0.421744   | 137.1         | 227.7         | 333.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 8   | 11     | 1081.1 | 0.273047   | 88.7          | 147.4         | 215.7         |                    | -                          | -                          | -                          |
| 2020 | 10    | 8   | 12     | 1075.8 | 0.239438   | 77.8          | 129.3         | 189.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 8   | 13     | 1047.6 | 0.217362   | 70.6          | 117.4         | 171.7         |                    | -                          | -                          | -                          |
| 2020 | 10    | 8   | 14     | 1043.1 | 0.187815   | 61.0          | 101.4         | 148.4         |                    | -                          | -                          | -                          |
| 2020 | 10    | 8   | 15     | 1068.5 | 0.15887    | 51.6          | 85.8          | 125.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 8   | 16     | 1084.9 | 0.174778   | 56.8          | 94.4          | 138.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 8   | 17     | 1063   | 0.258174   | 83.9          | 139.4         | 204.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 8   | 18     | 1050.1 | 0.422083   | 137.2         | 227.9         | 333.4         |                    | -                          | -                          | -                          |
| 2020 | 10    | 8   | 19     | 1125.7 | 0.507813   | 165.0         | 274.2         | 401.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 8   | 20     | 1049.9 | 0.527868   | 171.6         | 285.0         | 417.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 8   | 21     | 981.6  | 0.612164   | 199.0         | 330.6         | 483.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 8   | 22     | 925.4  | 0.611948   | 198.9         | 330.5         | 483.4         |                    | -                          | -                          | 48.04                      |
| 2020 | 10    | 8   | 23     | 873.7  | 0.557775   | 181.3         | 301.2         | 440.6         |                    | -                          | -                          | 56.94                      |
| 2020 | 10    | 8   | 24     | 770.5  | 0.578396   | 188.0         | 312.3         | 456.9         |                    | -                          | 31.83                      | 176.43                     |
| 2020 | 10    | 9   | 1      | 736.3  | 0.549754   | 178.7         | 296.9         | 434.3         |                    | -                          | 50.57                      | 188.01                     |
| 2020 | 10    | 9   | 2      | 720.1  | 0.455517   | 148.0         | 246.0         | 359.9         |                    | -                          | 15.88                      | 129.76                     |
| 2020 | 10    | 9   | 3      | 712    | 0.402713   | 130.9         | 217.5         | 318.1         |                    | -                          | -                          | 96.14                      |
| 2020 | 10    | 9   | 4      | 733.6  | 0.406765   | 132.2         | 219.7         | 321.3         |                    | -                          | -                          | 77.74                      |
| 2020 | 10    | 9   | 5      | 762    | 0.436291   | 141.8         | 235.6         | 344.7         |                    | -                          | -                          | 72.67                      |
| 2020 | 10    | 9   | 6      | 859.8  | 0.50179    | 163.1         | 271.0         | 396.4         |                    | -                          | -                          | 26.61                      |
| 2020 | 10    | 9   | 7      | 988.6  | 0.412899   | 134.2         | 223.0         | 326.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 9   | 8      | 1093.3 | 0.332046   | 107.9         | 179.3         | 262.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 9   | 9      | 1074   | 0.254508   | 82.7          | 137.4         | 201.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 9   | 10     | 1032.7 | 0.38683    | 125.7         | 208.9         | 305.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 9   | 11     | 1013.4 | 0.418203   | 135.9         | 225.8         | 330.4         |                    | -                          | -                          | -                          |
| 2020 | 10    | 9   | 12     | 1045.1 | 0.398086   | 129.4         | 215.0         | 314.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 9   | 13     | 1017.3 | 0.407013   | 132.3         | 219.8         | 321.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 9   | 14     | 1019.5 | 0.364522   | 118.5         | 196.8         | 288.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 9   | 15     | 1009.3 | 0.318769   | 103.6         | 172.1         | 251.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 9   | 16     | 1034.1 | 0.265518   | 86.3          | 143.4         | 209.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 9   | 17     | 1072.7 | 0.237559   | 77.2          | 128.3         | 187.7         |                    | -                          | -                          | -                          |
| 2020 | 10    | 9   | 18     | 1003   | 0.367737   | 119.5         | 198.6         | 290.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 9   | 19     | 1076.2 | 0.507705   | 165.0         | 274.2         | 401.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 9   | 20     | 1023.8 | 0.616667   | 200.4         | 333.0         | 487.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 9   | 21     | 959.6  | 0.63064    | 205.0         | 340.5         | 498.2         |                    | -                          | -                          | 28.61                      |
| 2020 | 10    | 9   | 22     | 921.3  | 0.700402   | 227.6         | 378.2         | 553.3         |                    | -                          | -                          | 122.02                     |
| 2020 | 10    | 9   | 23     | 868.6  | 0.718226   | 233.4         | 387.8         | 567.4         |                    | -                          | 9.24                       | 188.80                     |
| 2020 | 10    | 9   | 24     | 768.3  | 0.653849   | 212.5         | 353.1         | 516.5         |                    | -                          | 74.78                      | 238.24                     |
| 2020 | 10    | 10  | 1      | 737    | 0.515407   | 167.5         | 278.3         | 407.2         |                    | -                          | 31.32                      | 160.17                     |
| 2020 | 10    | 10  | 2      | 705.7  | 0.52561    | 170.8         | 283.8         | 415.2         |                    | -                          | 68.13                      | 199.53                     |
| 2020 | 10    | 10  | 3      | 695.7  | 0.60217    | 195.7         | 325.2         | 475.7         |                    | -                          | 119.47                     | 270.01                     |

| Year | Month | Day | Period | Load   | Wind     | Wind [MW] | Wind [MW] | Wind [MW] | Min Steam [MW] | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|----------|-----------|-----------|-----------|----------------|-------------------------------|-------------------------------|-------------------------------|
|      |       |     |        |        | Shape    | 325       | 540       | 790       |                |                               |                               |                               |
| 2020 | 10    | 10  | 4      | 725.7  | 0.539365 | 175.3     | 291.3     | 426.1     |                | -                             | 55.56                         | 190.40                        |
| 2020 | 10    | 10  | 5      | 743.2  | 0.55373  | 180.0     | 299.0     | 437.4     |                | -                             | 45.81                         | 184.25                        |
| 2020 | 10    | 10  | 6      | 763.2  | 0.568359 | 184.7     | 306.9     | 449.0     |                | -                             | 33.71                         | 175.80                        |
| 2020 | 10    | 10  | 7      | 864    | 0.563718 | 183.2     | 304.4     | 445.3     |                | -                             | -                             | 71.34                         |
| 2020 | 10    | 10  | 8      | 974.5  | 0.537346 | 174.6     | 290.2     | 424.5     |                | -                             | -                             | -                             |
| 2020 | 10    | 10  | 9      | 1039.3 | 0.455066 | 147.9     | 245.7     | 359.5     |                | -                             | -                             | -                             |
| 2020 | 10    | 10  | 10     | 1038.4 | 0.524274 | 170.4     | 283.1     | 414.2     |                | -                             | -                             | -                             |
| 2020 | 10    | 10  | 11     | 1013.3 | 0.444975 | 144.6     | 240.3     | 351.5     |                | -                             | -                             | -                             |
| 2020 | 10    | 10  | 12     | 1018.4 | 0.621628 | 202.0     | 335.7     | 491.1     |                | -                             | -                             | -                             |
| 2020 | 10    | 10  | 13     | 961.9  | 0.54619  | 177.5     | 294.9     | 431.5     |                | -                             | -                             | -                             |
| 2020 | 10    | 10  | 14     | 926.9  | 0.582094 | 189.2     | 314.3     | 459.9     |                | -                             | -                             | 22.95                         |
| 2020 | 10    | 10  | 15     | 920.5  | 0.576442 | 187.3     | 311.3     | 455.4     |                | -                             | -                             | 24.89                         |
| 2020 | 10    | 10  | 16     | 986.7  | 0.60618  | 197.0     | 327.3     | 478.9     |                | -                             | -                             | -                             |
| 2020 | 10    | 10  | 17     | 1034.4 | 0.471383 | 153.2     | 254.5     | 372.4     |                | -                             | -                             | -                             |
| 2020 | 10    | 10  | 18     | 1031.8 | 0.538793 | 175.1     | 290.9     | 425.6     |                | -                             | -                             | -                             |
| 2020 | 10    | 10  | 19     | 1066.7 | 0.444797 | 144.6     | 240.2     | 351.4     |                | -                             | -                             | -                             |
| 2020 | 10    | 10  | 20     | 1088.5 | 0.608471 | 197.8     | 328.6     | 480.7     |                | -                             | -                             | -                             |
| 2020 | 10    | 10  | 21     | 985.4  | 0.551401 | 179.2     | 297.8     | 435.6     |                | -                             | -                             | -                             |
| 2020 | 10    | 10  | 22     | 905.4  | 0.525636 | 170.8     | 283.8     | 415.3     |                | -                             | -                             | -                             |
| 2020 | 10    | 10  | 23     | 833.9  | 0.50908  | 165.5     | 274.9     | 402.2     |                | -                             | -                             | 58.27                         |
| 2020 | 10    | 10  | 24     | 784.4  | 0.531849 | 172.9     | 287.2     | 420.2     |                | -                             | -                             | 125.76                        |
| 2020 | 10    | 11  | 1      | 751.1  | 0.589498 | 191.6     | 318.3     | 465.7     |                | -                             | 57.23                         | 204.60                        |
| 2020 | 10    | 11  | 2      | 722.3  | 0.541716 | 176.1     | 292.5     | 428.0     |                | -                             | 60.23                         | 195.66                        |
| 2020 | 10    | 11  | 3      | 735.3  | 0.534137 | 173.6     | 288.4     | 422.0     |                | -                             | 43.13                         | 176.67                        |
| 2020 | 10    | 11  | 4      | 717    | 0.499359 | 162.3     | 269.7     | 394.5     |                | -                             | 42.65                         | 167.49                        |
| 2020 | 10    | 11  | 5      | 731.8  | 0.442576 | 143.8     | 239.0     | 349.6     |                | -                             | -                             | 107.84                        |
| 2020 | 10    | 11  | 6      | 766.8  | 0.472496 | 153.6     | 255.1     | 373.3     |                | -                             | -                             | 96.47                         |
| 2020 | 10    | 11  | 7      | 828.7  | 0.473464 | 153.9     | 255.7     | 374.0     |                | -                             | -                             | 35.34                         |
| 2020 | 10    | 11  | 8      | 956.2  | 0.422574 | 137.3     | 228.2     | 333.8     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 9      | 1082.8 | 0.413141 | 134.3     | 223.1     | 326.4     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 10     | 1064.5 | 0.48294  | 157.0     | 260.8     | 381.5     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 11     | 1026.3 | 0.46802  | 152.1     | 252.7     | 369.7     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 12     | 1009.7 | 0.444969 | 144.6     | 240.3     | 351.5     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 13     | 976.6  | 0.434579 | 141.2     | 234.7     | 343.3     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 14     | 977.2  | 0.41685  | 135.5     | 225.1     | 329.3     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 15     | 944.5  | 0.396017 | 128.7     | 213.8     | 312.9     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 16     | 967.1  | 0.324932 | 105.6     | 175.5     | 256.7     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 17     | 965.1  | 0.31826  | 103.4     | 171.9     | 251.4     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 18     | 957.9  | 0.246029 | 80.0      | 132.9     | 194.4     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 19     | 975.5  | 0.22359  | 72.7      | 120.7     | 176.6     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 20     | 918.3  | 0.259789 | 84.4      | 140.3     | 205.2     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 21     | 921.8  | 0.2798   | 90.9      | 151.1     | 221.0     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 22     | 849.6  | 0.312437 | 101.5     | 168.7     | 246.8     |                | -                             | -                             | -                             |
| 2020 | 10    | 11  | 23     | 807.5  | 0.406793 | 132.2     | 219.7     | 321.4     |                | -                             | -                             | 3.87                          |
| 2020 | 10    | 11  | 24     | 736.9  | 0.303831 | 98.7      | 164.1     | 240.0     |                | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 10    | 12  | 1      | 716.6  | 0.258227   | 83.9          | 139.4         | 204.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 2      | 688.8  | 0.160225   | 52.1          | 86.5          | 126.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 3      | 679    | 0.106486   | 34.6          | 57.5          | 84.1          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 4      | 694.3  | 0.102102   | 33.2          | 55.1          | 80.7          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 5      | 717.1  | 0.087166   | 28.3          | 47.1          | 68.9          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 6      | 760.6  | 0.081871   | 26.6          | 44.2          | 64.7          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 7      | 829.4  | 0.071185   | 23.1          | 38.4          | 56.2          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 8      | 907.2  | 0.086682   | 28.2          | 46.8          | 68.5          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 9      | 948.9  | 0.070218   | 22.8          | 37.9          | 55.5          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 10     | 998.4  | 0.062182   | 20.2          | 33.6          | 49.1          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 11     | 1033   | 0.061264   | 19.9          | 33.1          | 48.4          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 12     | 995.4  | 0.058461   | 19.0          | 31.6          | 46.2          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 13     | 911    | 0.059925   | 19.5          | 32.4          | 47.3          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 14     | 883.4  | 0.067523   | 21.9          | 36.5          | 53.3          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 15     | 873.3  | 0.074719   | 24.3          | 40.3          | 59.0          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 16     | 904.2  | 0.081301   | 26.4          | 43.9          | 64.2          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 17     | 920.9  | 0.098671   | 32.1          | 53.3          | 78.0          |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 18     | 936.2  | 0.17256    | 56.1          | 93.2          | 136.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 19     | 980    | 0.234281   | 76.1          | 126.5         | 185.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 20     | 990.4  | 0.236717   | 76.9          | 127.8         | 187.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 21     | 928.6  | 0.322951   | 105.0         | 174.4         | 255.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 22     | 890.9  | 0.353171   | 114.8         | 190.7         | 279.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 23     | 836.5  | 0.372985   | 121.2         | 201.4         | 294.7         |                    | -                          | -                          | -                          |
| 2020 | 10    | 12  | 24     | 759    | 0.393587   | 127.9         | 212.5         | 310.9         |                    | -                          | -                          | 41.93                      |
| 2020 | 10    | 13  | 1      | 711.8  | 0.352332   | 114.5         | 190.3         | 278.3         |                    | -                          | -                          | 56.54                      |
| 2020 | 10    | 13  | 2      | 715.3  | 0.295277   | 96.0          | 159.4         | 233.3         |                    | -                          | -                          | 7.97                       |
| 2020 | 10    | 13  | 3      | 698.4  | 0.193835   | 63.0          | 104.7         | 153.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 4      | 738    | 0.142043   | 46.2          | 76.7          | 112.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 5      | 796.9  | 0.173996   | 56.5          | 94.0          | 137.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 6      | 889.9  | 0.170055   | 55.3          | 91.8          | 134.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 7      | 1044.6 | 0.244951   | 79.6          | 132.3         | 193.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 8      | 1151.5 | 0.32269    | 104.9         | 174.3         | 254.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 9      | 1123.5 | 0.262075   | 85.2          | 141.5         | 207.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 10     | 1096.5 | 0.333571   | 108.4         | 180.1         | 263.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 11     | 1084   | 0.302354   | 98.3          | 163.3         | 238.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 12     | 1073   | 0.291327   | 94.7          | 157.3         | 230.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 13     | 1031.6 | 0.278317   | 90.5          | 150.3         | 219.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 14     | 985.7  | 0.245795   | 79.9          | 132.7         | 194.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 15     | 1034.2 | 0.259561   | 84.4          | 140.2         | 205.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 16     | 1060.3 | 0.281436   | 91.5          | 152.0         | 222.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 17     | 1090.2 | 0.258553   | 84.0          | 139.6         | 204.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 18     | 1061.1 | 0.343096   | 111.5         | 185.3         | 271.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 19     | 1118.8 | 0.366434   | 119.1         | 197.9         | 289.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 20     | 1061.6 | 0.400149   | 130.0         | 216.1         | 316.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 21     | 1012.3 | 0.424346   | 137.9         | 229.1         | 335.2         |                    | -                          | -                          | -                          |



| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 10    | 13  | 22     | 956    | 0.441018   | 143.3         | 238.1         | 348.4         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 23     | 912.4  | 0.44744    | 145.4         | 241.6         | 353.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 13  | 24     | 814.5  | 0.372108   | 120.9         | 200.9         | 294.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 1      | 778.5  | 0.352471   | 114.6         | 190.3         | 278.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 2      | 766    | 0.435213   | 141.4         | 235.0         | 343.8         |                    | -                          | -                          | 67.82                      |
| 2020 | 10    | 14  | 3      | 765.6  | 0.474062   | 154.1         | 256.0         | 374.5         |                    | -                          | -                          | 98.91                      |
| 2020 | 10    | 14  | 4      | 789.8  | 0.467962   | 152.1         | 252.7         | 369.7         |                    | -                          | -                          | 69.89                      |
| 2020 | 10    | 14  | 5      | 843.8  | 0.517755   | 168.3         | 279.6         | 409.0         |                    | -                          | -                          | 55.23                      |
| 2020 | 10    | 14  | 6      | 936.6  | 0.589071   | 191.4         | 318.1         | 465.4         |                    | -                          | -                          | 18.77                      |
| 2020 | 10    | 14  | 7      | 1101.5 | 0.591243   | 192.2         | 319.3         | 467.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 8      | 1240.7 | 0.610197   | 198.3         | 329.5         | 482.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 9      | 1183.9 | 0.664302   | 215.9         | 358.7         | 524.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 10     | 1109.2 | 0.620609   | 201.7         | 335.1         | 490.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 11     | 1112.4 | 0.570466   | 185.4         | 308.1         | 450.7         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 12     | 1086.6 | 0.490645   | 159.5         | 264.9         | 387.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 13     | 1055.7 | 0.422001   | 137.2         | 227.9         | 333.4         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 14     | 1061.6 | 0.351538   | 114.2         | 189.8         | 277.7         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 15     | 1048.1 | 0.298385   | 97.0          | 161.1         | 235.7         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 16     | 1121.5 | 0.304411   | 98.9          | 164.4         | 240.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 17     | 1075.1 | 0.364655   | 118.5         | 196.9         | 288.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 18     | 1033   | 0.384331   | 124.9         | 207.5         | 303.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 19     | 1138.4 | 0.379284   | 123.3         | 204.8         | 299.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 20     | 1087.4 | 0.428823   | 139.4         | 231.6         | 338.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 21     | 1010.3 | 0.497238   | 161.6         | 268.5         | 392.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 14  | 22     | 940.3  | 0.57603    | 187.2         | 311.1         | 455.1         |                    | -                          | -                          | 4.76                       |
| 2020 | 10    | 14  | 23     | 909.8  | 0.663899   | 215.8         | 358.5         | 524.5         |                    | -                          | -                          | 104.68                     |
| 2020 | 10    | 14  | 24     | 815.9  | 0.69772    | 226.8         | 376.8         | 551.2         |                    | -                          | 50.87                      | 225.30                     |
| 2020 | 10    | 15  | 1      | 777.1  | 0.728913   | 236.9         | 393.6         | 575.8         |                    | -                          | 106.51                     | 288.74                     |
| 2020 | 10    | 15  | 2      | 779.6  | 0.88812    | 288.6         | 479.6         | 701.6         |                    | -                          | 189.98                     | 412.01                     |
| 2020 | 10    | 15  | 3      | 772.8  | 0.903814   | 293.7         | 488.1         | 714.0         |                    | 10.94                      | 205.26                     | 431.21                     |
| 2020 | 10    | 15  | 4      | 791.2  | 0.903705   | 293.7         | 488.0         | 713.9         |                    | -                          | 186.80                     | 412.73                     |
| 2020 | 10    | 15  | 5      | 882.1  | 0.897029   | 291.5         | 484.4         | 708.7         |                    | -                          | 92.30                      | 316.55                     |
| 2020 | 10    | 15  | 6      | 977.3  | 0.900182   | 292.6         | 486.1         | 711.1         |                    | -                          | -                          | 223.84                     |
| 2020 | 10    | 15  | 7      | 1121   | 0.892022   | 289.9         | 481.7         | 704.7         |                    | -                          | -                          | 73.70                      |
| 2020 | 10    | 15  | 8      | 1212.3 | 0.842851   | 273.9         | 455.1         | 665.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 15  | 9      | 1234.1 | 0.764875   | 248.6         | 413.0         | 604.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 15  | 10     | 1130.3 | 0.753382   | 244.8         | 406.8         | 595.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 15  | 11     | 1106.1 | 0.773479   | 251.4         | 417.7         | 611.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 15  | 12     | 1112.4 | 0.804121   | 261.3         | 434.2         | 635.3         |                    | -                          | -                          | 12.86                      |
| 2020 | 10    | 15  | 13     | 1055.2 | 0.832435   | 270.5         | 449.5         | 657.6         |                    | -                          | -                          | 92.42                      |
| 2020 | 10    | 15  | 14     | 1022   | 0.813377   | 264.3         | 439.2         | 642.6         |                    | -                          | -                          | 110.57                     |
| 2020 | 10    | 15  | 15     | 1007.3 | 0.767493   | 249.4         | 414.4         | 606.3         |                    | -                          | -                          | 89.02                      |
| 2020 | 10    | 15  | 16     | 1059   | 0.721891   | 234.6         | 389.8         | 570.3         |                    | -                          | -                          | 1.29                       |
| 2020 | 10    | 15  | 17     | 1070.5 | 0.635161   | 206.4         | 343.0         | 501.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 15  | 18     | 1048.4 | 0.606955   | 197.3         | 327.8         | 479.5         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 10    | 15  | 19     | 1092.5 | 0.620985   | 201.8         | 335.3         | 490.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 15  | 20     | 1075.6 | 0.657946   | 213.8         | 355.3         | 519.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 15  | 21     | 1041   | 0.699276   | 227.3         | 377.6         | 552.4         |                    | -                          | -                          | 1.43                       |
| 2020 | 10    | 15  | 22     | 949.3  | 0.728831   | 236.9         | 393.6         | 575.8         |                    | -                          | -                          | 116.48                     |
| 2020 | 10    | 15  | 23     | 911.2  | 0.714929   | 232.4         | 386.1         | 564.8         |                    | -                          | -                          | 143.59                     |
| 2020 | 10    | 15  | 24     | 835.3  | 0.742467   | 241.3         | 400.9         | 586.5         |                    | -                          | 55.63                      | 241.25                     |
| 2020 | 10    | 16  | 1      | 778.1  | 0.781836   | 254.1         | 422.2         | 617.7         |                    | -                          | 134.09                     | 329.55                     |
| 2020 | 10    | 16  | 2      | 748.6  | 0.859422   | 279.3         | 464.1         | 678.9         |                    | 20.71                      | 205.49                     | 420.34                     |
| 2020 | 10    | 16  | 3      | 735.8  | 0.815861   | 265.2         | 440.6         | 644.5         |                    | 19.35                      | 194.77                     | 398.73                     |
| 2020 | 10    | 16  | 4      | 766.1  | 0.804961   | 261.6         | 434.7         | 635.9         |                    | -                          | 158.58                     | 359.82                     |
| 2020 | 10    | 16  | 5      | 796.8  | 0.793014   | 257.7         | 428.2         | 626.5         |                    | -                          | 121.43                     | 319.68                     |
| 2020 | 10    | 16  | 6      | 905.2  | 0.676522   | 219.9         | 365.3         | 534.5         |                    | -                          | -                          | 119.25                     |
| 2020 | 10    | 16  | 7      | 1048.9 | 0.65794    | 213.8         | 355.3         | 519.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 8      | 1152.3 | 0.617595   | 200.7         | 333.5         | 487.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 9      | 1178.6 | 0.750425   | 243.9         | 405.2         | 592.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 10     | 1134.4 | 0.804182   | 261.4         | 434.3         | 635.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 11     | 1141.6 | 0.790401   | 256.9         | 426.8         | 624.4         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 12     | 1153.3 | 0.750883   | 244.0         | 405.5         | 593.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 13     | 1136.6 | 0.69465    | 225.8         | 375.1         | 548.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 14     | 1136.6 | 0.580859   | 188.8         | 313.7         | 458.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 15     | 1177.7 | 0.442558   | 143.8         | 239.0         | 349.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 16     | 1192   | 0.330515   | 107.4         | 178.5         | 261.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 17     | 1133.5 | 0.21494    | 69.9          | 116.1         | 169.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 18     | 1135.9 | 0.193593   | 62.9          | 104.5         | 152.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 19     | 1128.1 | 0.232164   | 75.5          | 125.4         | 183.4         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 20     | 1075.1 | 0.322848   | 104.9         | 174.3         | 255.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 21     | 994    | 0.445828   | 144.9         | 240.7         | 352.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 22     | 975.8  | 0.503576   | 163.7         | 271.9         | 397.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 23     | 915.6  | 0.390158   | 126.8         | 210.7         | 308.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 16  | 24     | 827.8  | 0.460765   | 149.7         | 248.8         | 364.0         |                    | -                          | -                          | 26.20                      |
| 2020 | 10    | 17  | 1      | 754.3  | 0.455465   | 148.0         | 246.0         | 359.8         |                    | -                          | -                          | 95.52                      |
| 2020 | 10    | 17  | 2      | 726.9  | 0.47152    | 153.2         | 254.6         | 372.5         |                    | -                          | 17.72                      | 135.60                     |
| 2020 | 10    | 17  | 3      | 705.4  | 0.487815   | 158.5         | 263.4         | 385.4         |                    | -                          | 48.02                      | 169.97                     |
| 2020 | 10    | 17  | 4      | 726.2  | 0.341321   | 110.9         | 184.3         | 269.6         |                    | -                          | -                          | 33.44                      |
| 2020 | 10    | 17  | 5      | 746.1  | 0.496589   | 161.4         | 268.2         | 392.3         |                    | -                          | 12.06                      | 136.21                     |
| 2020 | 10    | 17  | 6      | 786.3  | 0.583368   | 189.6         | 315.0         | 460.9         |                    | -                          | 18.72                      | 164.56                     |
| 2020 | 10    | 17  | 7      | 855.8  | 0.666826   | 216.7         | 360.1         | 526.8         |                    | -                          | -                          | 160.99                     |
| 2020 | 10    | 17  | 8      | 956.6  | 0.575121   | 186.9         | 310.6         | 454.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 17  | 9      | 1006.3 | 0.710784   | 231.0         | 383.8         | 561.5         |                    | -                          | -                          | 45.22                      |
| 2020 | 10    | 17  | 10     | 1008.8 | 0.801981   | 260.6         | 433.1         | 633.6         |                    | -                          | -                          | 114.76                     |
| 2020 | 10    | 17  | 11     | 1039.1 | 0.870688   | 283.0         | 470.2         | 687.8         |                    | -                          | -                          | 138.74                     |
| 2020 | 10    | 17  | 12     | 1036.8 | 0.851869   | 276.9         | 460.0         | 673.0         |                    | -                          | -                          | 126.18                     |
| 2020 | 10    | 17  | 13     | 1031.9 | 0.756483   | 245.9         | 408.5         | 597.6         |                    | -                          | -                          | 55.72                      |
| 2020 | 10    | 17  | 14     | 980.2  | 0.647805   | 210.5         | 349.8         | 511.8         |                    | -                          | -                          | 21.57                      |
| 2020 | 10    | 17  | 15     | 995.4  | 0.635781   | 206.6         | 343.3         | 502.3         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 10    | 17  | 16     | 996.5  | 0.5741     | 186.6         | 310.0         | 453.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 17  | 17     | 1018.8 | 0.593485   | 192.9         | 320.5         | 468.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 17  | 18     | 1083.3 | 0.556308   | 180.8         | 300.4         | 439.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 17  | 19     | 1061.5 | 0.587643   | 191.0         | 317.3         | 464.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 17  | 20     | 1061.7 | 0.557961   | 181.3         | 301.3         | 440.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 17  | 21     | 968.4  | 0.489742   | 159.2         | 264.5         | 386.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 17  | 22     | 877.3  | 0.510105   | 165.8         | 275.5         | 403.0         |                    | -                          | -                          | 15.68                      |
| 2020 | 10    | 17  | 23     | 808.3  | 0.451759   | 146.8         | 243.9         | 356.9         |                    | -                          | -                          | 38.59                      |
| 2020 | 10    | 17  | 24     | 765.7  | 0.436438   | 141.8         | 235.7         | 344.8         |                    | -                          | -                          | 69.09                      |
| 2020 | 10    | 18  | 1      | 730    | 0.469677   | 152.6         | 253.6         | 371.0         |                    | -                          | 13.63                      | 131.05                     |
| 2020 | 10    | 18  | 2      | 717.6  | 0.461027   | 149.8         | 249.0         | 364.2         |                    | -                          | 21.35                      | 136.61                     |
| 2020 | 10    | 18  | 3      | 716.3  | 0.451568   | 146.8         | 243.8         | 356.7         |                    | -                          | 17.55                      | 130.44                     |
| 2020 | 10    | 18  | 4      | 711.2  | 0.491259   | 159.7         | 265.3         | 388.1         |                    | -                          | 44.08                      | 166.89                     |
| 2020 | 10    | 18  | 5      | 717.7  | 0.572573   | 186.1         | 309.2         | 452.3         |                    | -                          | 81.49                      | 224.63                     |
| 2020 | 10    | 18  | 6      | 736.3  | 0.593964   | 193.0         | 320.7         | 469.2         |                    | -                          | 74.44                      | 222.93                     |
| 2020 | 10    | 18  | 7      | 795.9  | 0.587552   | 191.0         | 317.3         | 464.2         |                    | -                          | 11.38                      | 158.27                     |
| 2020 | 10    | 18  | 8      | 902.9  | 0.509785   | 165.7         | 275.3         | 402.7         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 9      | 962.2  | 0.459247   | 149.3         | 248.0         | 362.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 10     | 1019.3 | 0.366214   | 119.0         | 197.8         | 289.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 11     | 1059   | 0.363839   | 118.2         | 196.5         | 287.4         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 12     | 999.4  | 0.399807   | 129.9         | 215.9         | 315.8         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 13     | 1006.3 | 0.226686   | 73.7          | 122.4         | 179.1         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 14     | 929.5  | 0.20157    | 65.5          | 108.8         | 159.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 15     | 1002.8 | 0.224492   | 73.0          | 121.2         | 177.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 16     | 1025.2 | 0.192466   | 62.6          | 103.9         | 152.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 17     | 1056.5 | 0.132748   | 43.1          | 71.7          | 104.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 18     | 1132.7 | 0.210805   | 68.5          | 113.8         | 166.5         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 19     | 1150.2 | 0.279777   | 90.9          | 151.1         | 221.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 20     | 1073.6 | 0.335421   | 109.0         | 181.1         | 265.0         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 21     | 1001.2 | 0.296723   | 96.4          | 160.2         | 234.4         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 22     | 951.8  | 0.41629    | 135.3         | 224.8         | 328.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 23     | 873.6  | 0.363146   | 118.0         | 196.1         | 286.9         |                    | -                          | -                          | -                          |
| 2020 | 10    | 18  | 24     | 783.1  | 0.362404   | 117.8         | 195.7         | 286.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 19  | 1      | 754.4  | 0.304008   | 98.8          | 164.2         | 240.2         |                    | -                          | -                          | -                          |
| 2020 | 10    | 19  | 2      | 725.2  | 0.264103   | 85.8          | 142.6         | 208.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 19  | 3      | 739    | 0.271658   | 88.3          | 146.7         | 214.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 19  | 4      | 760.7  | 0.210479   | 68.4          | 113.7         | 166.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 19  | 5      | 802.1  | 0.228216   | 74.2          | 123.2         | 180.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 19  | 6      | 903.4  | 0.175456   | 57.0          | 94.7          | 138.6         |                    | -                          | -                          | -                          |
| 2020 | 10    | 19  | 7      | 1063   | 0.190423   | 61.9          | 102.8         | 150.4         |                    | -                          | -                          | -                          |
| 2020 | 10    | 19  | 8      | 1155.7 | 0.138347   | 45.0          | 74.7          | 109.3         |                    | -                          | -                          | -                          |
| 2020 | 10    | 19  | 9      | 1181   | 0.06902    | 22.4          | 37.3          | 54.5          |                    | -                          | -                          | -                          |
| 2020 | 10    | 19  | 10     | 1153.5 | 0.051395   | 16.7          | 27.8          | 40.6          |                    | -                          | -                          | -                          |
| 2020 | 10    | 19  | 11     | 1139.6 | 0.060905   | 19.8          | 32.9          | 48.1          |                    | -                          | -                          | -                          |
| 2020 | 10    | 19  | 12     | 1113.6 | 0.052359   | 17.0          | 28.3          | 41.4          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 10    | 19  | 13     | 1073   | 0.062553      | 20.3             | 33.8             | 49.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 19  | 14     | 1043.7 | 0.075536      | 24.5             | 40.8             | 59.7             |                       | -                             | -                             | -                             |
| 2020 | 10    | 19  | 15     | 1088.7 | 0.076408      | 24.8             | 41.3             | 60.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 19  | 16     | 1073   | 0.082522      | 26.8             | 44.6             | 65.2             |                       | -                             | -                             | -                             |
| 2020 | 10    | 19  | 17     | 1156.8 | 0.140472      | 45.7             | 75.9             | 111.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 19  | 18     | 1136.2 | 0.185265      | 60.2             | 100.0            | 146.4            |                       | -                             | -                             | -                             |
| 2020 | 10    | 19  | 19     | 1148.2 | 0.208431      | 67.7             | 112.6            | 164.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 19  | 20     | 1101.4 | 0.240866      | 78.3             | 130.1            | 190.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 19  | 21     | 1073.5 | 0.275132      | 89.4             | 148.6            | 217.4            |                       | -                             | -                             | -                             |
| 2020 | 10    | 19  | 22     | 999.8  | 0.387112      | 125.8            | 209.0            | 305.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 19  | 23     | 949.1  | 0.433087      | 140.8            | 233.9            | 342.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 19  | 24     | 880.6  | 0.357624      | 116.2            | 193.1            | 282.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 1      | 822.2  | 0.422956      | 137.5            | 228.4            | 334.1            |                       | -                             | -                             | 1.93                          |
| 2020 | 10    | 20  | 2      | 786.6  | 0.385584      | 125.3            | 208.2            | 304.6            |                       | -                             | -                             | 8.01                          |
| 2020 | 10    | 20  | 3      | 776.3  | 0.453147      | 147.3            | 244.7            | 358.0            |                       | -                             | -                             | 71.69                         |
| 2020 | 10    | 20  | 4      | 804.9  | 0.527582      | 171.5            | 284.9            | 416.8            |                       | -                             | -                             | 101.89                        |
| 2020 | 10    | 20  | 5      | 858.4  | 0.465661      | 151.3            | 251.5            | 367.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 6      | 983.7  | 0.391         | 127.1            | 211.1            | 308.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 7      | 1136.5 | 0.347761      | 113.0            | 187.8            | 274.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 8      | 1230.8 | 0.267348      | 86.9             | 144.4            | 211.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 9      | 1208.7 | 0.24586       | 79.9             | 132.8            | 194.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 10     | 1140.8 | 0.117731      | 38.3             | 63.6             | 93.0             |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 11     | 1121.1 | 0.168195      | 54.7             | 90.8             | 132.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 12     | 1094.4 | 0.116808      | 38.0             | 63.1             | 92.3             |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 13     | 1070.1 | 0.02241       | 7.3              | 12.1             | 17.7             |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 14     | 1048.8 | 0.255162      | 82.9             | 137.8            | 201.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 15     | 1060.9 | 0.237428      | 77.2             | 128.2            | 187.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 16     | 1093.1 | 0.344193      | 111.9            | 185.9            | 271.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 17     | 1177.2 | 0.504978      | 164.1            | 272.7            | 398.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 18     | 1104.9 | 0.430743      | 140.0            | 232.6            | 340.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 19     | 1167.1 | 0.367946      | 119.6            | 198.7            | 290.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 20     | 1146.2 | 0.278345      | 90.5             | 150.3            | 219.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 21     | 1097.4 | 0.381108      | 123.9            | 205.8            | 301.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 22     | 1019.2 | 0.428354      | 139.2            | 231.3            | 338.4            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 23     | 924.2  | 0.425317      | 138.2            | 229.7            | 336.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 20  | 24     | 856.7  | 0.42159       | 137.0            | 227.7            | 333.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 1      | 815.1  | 0.460655      | 149.7            | 248.8            | 363.9            |                       | -                             | -                             | 38.82                         |
| 2020 | 10    | 21  | 2      | 826.2  | 0.3782        | 122.9            | 204.2            | 298.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 3      | 802.1  | 0.360684      | 117.2            | 194.8            | 284.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 4      | 824.1  | 0.41129       | 133.7            | 222.1            | 324.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 5      | 899.9  | 0.456974      | 148.5            | 246.8            | 361.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 6      | 1013.9 | 0.492178      | 160.0            | 265.8            | 388.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 7      | 1148.2 | 0.469015      | 152.4            | 253.3            | 370.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 8      | 1237.5 | 0.402505      | 130.8            | 217.4            | 318.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 9      | 1213.6 | 0.352055      | 114.4            | 190.1            | 278.1            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 10    | 21  | 10     | 1170.9 | 0.375519      | 122.0            | 202.8            | 296.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 11     | 1151   | 0.508917      | 165.4            | 274.8            | 402.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 12     | 1130.8 | 0.517846      | 168.3            | 279.6            | 409.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 13     | 1089.7 | 0.462268      | 150.2            | 249.6            | 365.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 14     | 1032.7 | 0.431897      | 140.4            | 233.2            | 341.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 15     | 1057.1 | 0.372858      | 121.2            | 201.3            | 294.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 16     | 1075   | 0.350858      | 114.0            | 189.5            | 277.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 17     | 1089.9 | 0.201356      | 65.4             | 108.7            | 159.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 18     | 1106.9 | 0.190501      | 61.9             | 102.9            | 150.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 19     | 1157.7 | 0.19532       | 63.5             | 105.5            | 154.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 20     | 1107.1 | 0.310527      | 100.9            | 167.7            | 245.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 21     | 1098.6 | 0.404498      | 131.5            | 218.4            | 319.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 22     | 1007.6 | 0.32594       | 105.9            | 176.0            | 257.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 23     | 945.9  | 0.307656      | 100.0            | 166.1            | 243.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 21  | 24     | 901.5  | 0.275923      | 89.7             | 149.0            | 218.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 1      | 815.4  | 0.216499      | 70.4             | 116.9            | 171.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 2      | 778.4  | 0.270405      | 87.9             | 146.0            | 213.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 3      | 800.4  | 0.158443      | 51.5             | 85.6             | 125.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 4      | 798.6  | 0.124852      | 40.6             | 67.4             | 98.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 5      | 856.1  | 0.151329      | 49.2             | 81.7             | 119.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 6      | 955.7  | 0.095473      | 31.0             | 51.6             | 75.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 7      | 1088.7 | 0.06408       | 20.8             | 34.6             | 50.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 8      | 1187.5 | 0.051157      | 16.6             | 27.6             | 40.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 9      | 1221.8 | 0.027846      | 9.1              | 15.0             | 22.0             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 10     | 1152.3 | 0.031626      | 10.3             | 17.1             | 25.0             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 11     | 1175.7 | 0.039481      | 12.8             | 21.3             | 31.2             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 12     | 1122.8 | 0.044718      | 14.5             | 24.1             | 35.3             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 13     | 1169.4 | 0.059737      | 19.4             | 32.3             | 47.2             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 14     | 1144.9 | 0.066883      | 21.7             | 36.1             | 52.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 15     | 1119.8 | 0.055535      | 18.0             | 30.0             | 43.9             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 16     | 1169.6 | 0.052432      | 17.0             | 28.3             | 41.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 17     | 1197.7 | 0.037393      | 12.2             | 20.2             | 29.5             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 18     | 1120.2 | 0.04645       | 15.1             | 25.1             | 36.7             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 19     | 1103.8 | 0.050727      | 16.5             | 27.4             | 40.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 20     | 1084.3 | 0.072191      | 23.5             | 39.0             | 57.0             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 21     | 1053.2 | 0.044436      | 14.4             | 24.0             | 35.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 22     | 981.3  | 0.053252      | 17.3             | 28.8             | 42.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 23     | 895.2  | 0.078328      | 25.5             | 42.3             | 61.9             |                       | -                             | -                             | -                             |
| 2020 | 10    | 22  | 24     | 803.9  | 0.073755      | 24.0             | 39.8             | 58.3             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 1      | 762.6  | 0.066769      | 21.7             | 36.1             | 52.7             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 2      | 726.8  | 0.066524      | 21.6             | 35.9             | 52.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 3      | 722.5  | 0.098291      | 31.9             | 53.1             | 77.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 4      | 742.5  | 0.097357      | 31.6             | 52.6             | 76.9             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 5      | 803.9  | 0.098459      | 32.0             | 53.2             | 77.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 6      | 896.3  | 0.087048      | 28.3             | 47.0             | 68.8             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 10    | 23  | 7      | 1026.5 | 0.097923      | 31.8             | 52.9             | 77.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 8      | 1128.9 | 0.088038      | 28.6             | 47.5             | 69.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 9      | 1162.1 | 0.058513      | 19.0             | 31.6             | 46.2             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 10     | 1186.8 | 0.062502      | 20.3             | 33.8             | 49.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 11     | 1172.2 | 0.087417      | 28.4             | 47.2             | 69.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 12     | 1149.5 | 0.08142       | 26.5             | 44.0             | 64.3             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 13     | 1132   | 0.080797      | 26.3             | 43.6             | 63.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 14     | 1104   | 0.075644      | 24.6             | 40.8             | 59.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 15     | 1108.6 | 0.076938      | 25.0             | 41.5             | 60.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 16     | 1124.1 | 0.052611      | 17.1             | 28.4             | 41.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 17     | 1204.3 | 0.046268      | 15.0             | 25.0             | 36.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 18     | 1204.3 | 0.045125      | 14.7             | 24.4             | 35.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 19     | 1192.3 | 0.037119      | 12.1             | 20.0             | 29.3             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 20     | 1119.4 | 0.039879      | 13.0             | 21.5             | 31.5             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 21     | 1077.3 | 0.027831      | 9.0              | 15.0             | 22.0             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 22     | 1006.2 | 0.032015      | 10.4             | 17.3             | 25.3             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 23     | 1003.3 | 0.03092       | 10.0             | 16.7             | 24.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 23  | 24     | 928.5  | 0.027203      | 8.8              | 14.7             | 21.5             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 1      | 865    | 0.024173      | 7.9              | 13.1             | 19.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 2      | 797.4  | 0.023789      | 7.7              | 12.8             | 18.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 3      | 783.7  | 0.023504      | 7.6              | 12.7             | 18.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 4      | 788.8  | 0.023397      | 7.6              | 12.6             | 18.5             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 5      | 818.6  | 0.032598      | 10.6             | 17.6             | 25.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 6      | 887.8  | 0.032819      | 10.7             | 17.7             | 25.9             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 7      | 950    | 0.03475       | 11.3             | 18.8             | 27.5             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 8      | 1052.8 | 0.034874      | 11.3             | 18.8             | 27.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 9      | 1170.8 | 0.032715      | 10.6             | 17.7             | 25.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 10     | 1216.8 | 0.042726      | 13.9             | 23.1             | 33.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 11     | 1184.8 | 0.046101      | 15.0             | 24.9             | 36.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 12     | 1203.8 | 0.052064      | 16.9             | 28.1             | 41.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 13     | 1072.7 | 0.053766      | 17.5             | 29.0             | 42.5             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 14     | 1068.5 | 0.050598      | 16.4             | 27.3             | 40.0             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 15     | 1058.2 | 0.037781      | 12.3             | 20.4             | 29.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 16     | 1113.9 | 0.031697      | 10.3             | 17.1             | 25.0             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 17     | 1212.1 | 0.037001      | 12.0             | 20.0             | 29.2             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 18     | 1180.3 | 0.073707      | 24.0             | 39.8             | 58.2             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 19     | 1159.6 | 0.126063      | 41.0             | 68.1             | 99.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 20     | 1102.3 | 0.127998      | 41.6             | 69.1             | 101.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 21     | 1081.8 | 0.11026       | 35.8             | 59.5             | 87.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 22     | 1031   | 0.141991      | 46.1             | 76.7             | 112.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 23     | 942.8  | 0.179788      | 58.4             | 97.1             | 142.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 24  | 24     | 891.2  | 0.136536      | 44.4             | 73.7             | 107.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 1      | 824.5  | 0.147197      | 47.8             | 79.5             | 116.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 2      | 790.1  | 0.110123      | 35.8             | 59.5             | 87.0             |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 3      | 799.3  | 0.11096       | 36.1             | 59.9             | 87.7             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 10    | 25  | 4      | 810    | 0.108118      | 35.1             | 58.4             | 85.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 5      | 806.4  | 0.085489      | 27.8             | 46.2             | 67.5             |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 6      | 836.5  | 0.089465      | 29.1             | 48.3             | 70.7             |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 7      | 906.7  | 0.10062       | 32.7             | 54.3             | 79.5             |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 8      | 1041.6 | 0.098016      | 31.9             | 52.9             | 77.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 9      | 1091.8 | 0.168194      | 54.7             | 90.8             | 132.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 10     | 1077.9 | 0.152476      | 49.6             | 82.3             | 120.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 11     | 1055.9 | 0.135383      | 44.0             | 73.1             | 107.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 12     | 1029.5 | 0.144405      | 46.9             | 78.0             | 114.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 13     | 976.3  | 0.118992      | 38.7             | 64.3             | 94.0             |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 14     | 953    | 0.090468      | 29.4             | 48.9             | 71.5             |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 15     | 957.8  | 0.13106       | 42.6             | 70.8             | 103.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 16     | 988    | 0.078305      | 25.4             | 42.3             | 61.9             |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 17     | 1025.3 | 0.090085      | 29.3             | 48.6             | 71.2             |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 18     | 1075   | 0.138892      | 45.1             | 75.0             | 109.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 19     | 1155.4 | 0.208932      | 67.9             | 112.8            | 165.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 20     | 1180.1 | 0.32351       | 105.1            | 174.7            | 255.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 21     | 1073.4 | 0.41461       | 134.7            | 223.9            | 327.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 22     | 1009.9 | 0.48494       | 157.6            | 261.9            | 383.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 23     | 926.1  | 0.524141      | 170.3            | 283.0            | 414.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 25  | 24     | 910.6  | 0.596776      | 194.0            | 322.3            | 471.5            |                       | -                             | -                             | 50.85                         |
| 2020 | 10    | 26  | 1      | 850.7  | 0.513383      | 166.8            | 277.2            | 405.6            |                       | -                             | -                             | 44.87                         |
| 2020 | 10    | 26  | 2      | 852    | 0.627437      | 203.9            | 338.8            | 495.7            |                       | -                             | -                             | 133.68                        |
| 2020 | 10    | 26  | 3      | 876.4  | 0.624746      | 203.0            | 337.4            | 493.5            |                       | -                             | -                             | 107.15                        |
| 2020 | 10    | 26  | 4      | 882.4  | 0.655511      | 213.0            | 354.0            | 517.9            |                       | -                             | -                             | 125.45                        |
| 2020 | 10    | 26  | 5      | 956.2  | 0.854842      | 277.8            | 461.6            | 675.3            |                       | -                             | -                             | 209.13                        |
| 2020 | 10    | 26  | 6      | 1081.5 | 0.826738      | 268.7            | 446.4            | 653.1            |                       | -                             | -                             | 61.62                         |
| 2020 | 10    | 26  | 7      | 1239.3 | 0.829518      | 269.6            | 447.9            | 655.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 8      | 1348.8 | 0.83809       | 272.4            | 452.6            | 662.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 9      | 1335.9 | 0.805957      | 261.9            | 435.2            | 636.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 10     | 1287.2 | 0.828079      | 269.1            | 447.2            | 654.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 11     | 1316.8 | 0.835413      | 271.5            | 451.1            | 660.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 12     | 1239.1 | 0.823759      | 267.7            | 444.8            | 650.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 13     | 1216.5 | 0.840677      | 273.2            | 454.0            | 664.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 14     | 1182.7 | 0.826933      | 268.8            | 446.5            | 653.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 15     | 1191.6 | 0.849448      | 276.1            | 458.7            | 671.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 16     | 1272.3 | 0.788783      | 256.4            | 425.9            | 623.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 17     | 1310   | 0.698355      | 227.0            | 377.1            | 551.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 18     | 1222   | 0.797504      | 259.2            | 430.7            | 630.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 19     | 1229.9 | 0.768336      | 249.7            | 414.9            | 607.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 20     | 1236.7 | 0.753268      | 244.8            | 406.8            | 595.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 21     | 1150.2 | 0.798091      | 259.4            | 431.0            | 630.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 26  | 22     | 1050.7 | 0.778708      | 253.1            | 420.5            | 615.2            |                       | -                             | -                             | 54.48                         |
| 2020 | 10    | 26  | 23     | 994.8  | 0.781447      | 254.0            | 422.0            | 617.3            |                       | -                             | -                             | 112.54                        |
| 2020 | 10    | 26  | 24     | 864.6  | 0.678582      | 220.5            | 366.4            | 536.1            |                       | -                             | -                             | 161.48                        |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 10    | 27  | 1      | 805.5  | 0.609463      | 198.1            | 329.1            | 481.5            |                       | -                             | 13.61                         | 165.98                        |
| 2020 | 10    | 27  | 2      | 763.6  | 0.564758      | 183.5            | 305.0            | 446.2            |                       | -                             | 31.37                         | 172.56                        |
| 2020 | 10    | 27  | 3      | 769.7  | 0.480311      | 156.1            | 259.4            | 379.4            |                       | -                             | -                             | 99.75                         |
| 2020 | 10    | 27  | 4      | 761.4  | 0.449225      | 146.0            | 242.6            | 354.9            |                       | -                             | -                             | 83.49                         |
| 2020 | 10    | 27  | 5      | 800.7  | 0.432913      | 140.7            | 233.8            | 342.0            |                       | -                             | -                             | 31.30                         |
| 2020 | 10    | 27  | 6      | 909.3  | 0.402039      | 130.7            | 217.1            | 317.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 7      | 1047   | 0.352719      | 114.6            | 190.5            | 278.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 8      | 1152.6 | 0.258838      | 84.1             | 139.8            | 204.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 9      | 1150.1 | 0.210222      | 68.3             | 113.5            | 166.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 10     | 1128.9 | 0.223955      | 72.8             | 120.9            | 176.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 11     | 1167.1 | 0.169395      | 55.1             | 91.5             | 133.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 12     | 1182.4 | 0.176611      | 57.4             | 95.4             | 139.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 13     | 1150.4 | 0.183218      | 59.5             | 98.9             | 144.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 14     | 1167.2 | 0.162705      | 52.9             | 87.9             | 128.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 15     | 1175.8 | 0.183715      | 59.7             | 99.2             | 145.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 16     | 1184   | 0.123221      | 40.0             | 66.5             | 97.3             |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 17     | 1260.1 | 0.096795      | 31.5             | 52.3             | 76.5             |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 18     | 1219.4 | 0.079837      | 25.9             | 43.1             | 63.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 19     | 1143.9 | 0.152316      | 49.5             | 82.3             | 120.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 20     | 1132   | 0.092083      | 29.9             | 49.7             | 72.7             |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 21     | 1081.3 | 0.111774      | 36.3             | 60.4             | 88.3             |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 22     | 986    | 0.102636      | 33.4             | 55.4             | 81.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 23     | 901.5  | 0.129493      | 42.1             | 69.9             | 102.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 27  | 24     | 800.1  | 0.090435      | 29.4             | 48.8             | 71.4             |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 1      | 753.5  | 0.128181      | 41.7             | 69.2             | 101.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 2      | 722.8  | 0.142755      | 46.4             | 77.1             | 112.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 3      | 723.2  | 0.194368      | 63.2             | 105.0            | 153.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 4      | 745.3  | 0.163858      | 53.3             | 88.5             | 129.4            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 5      | 785.4  | 0.258172      | 83.9             | 139.4            | 204.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 6      | 906.9  | 0.305553      | 99.3             | 165.0            | 241.4            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 7      | 1041   | 0.506274      | 164.5            | 273.4            | 400.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 8      | 1138.7 | 0.562389      | 182.8            | 303.7            | 444.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 9      | 1168.4 | 0.613061      | 199.2            | 331.1            | 484.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 10     | 1171.8 | 0.527725      | 171.5            | 285.0            | 416.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 11     | 1130.9 | 0.614701      | 199.8            | 331.9            | 485.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 12     | 1128.6 | 0.604822      | 196.6            | 326.6            | 477.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 13     | 1125.2 | 0.677097      | 220.1            | 365.6            | 534.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 14     | 1053.1 | 0.655179      | 212.9            | 353.8            | 517.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 15     | 1078.2 | 0.556589      | 180.9            | 300.6            | 439.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 16     | 1149.1 | 0.607342      | 197.4            | 328.0            | 479.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 17     | 1177.6 | 0.609247      | 198.0            | 329.0            | 481.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 18     | 1129.4 | 0.642514      | 208.8            | 347.0            | 507.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 19     | 1195.1 | 0.598732      | 194.6            | 323.3            | 473.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 20     | 1179.6 | 0.643483      | 209.1            | 347.5            | 508.4            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 21     | 1057.6 | 0.645245      | 209.7            | 348.4            | 509.7            |                       | -                             | -                             | -                             |



| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 10    | 28  | 22     | 984.5  | 0.597753      | 194.3            | 322.8            | 472.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 28  | 23     | 868.9  | 0.628728      | 204.3            | 339.5            | 496.7            |                       | -                             | -                             | 117.79                        |
| 2020 | 10    | 28  | 24     | 786.5  | 0.565015      | 183.6            | 305.1            | 446.4            |                       | -                             | 8.61                          | 149.86                        |
| 2020 | 10    | 29  | 1      | 723.7  | 0.518499      | 168.5            | 280.0            | 409.6            |                       | -                             | 46.29                         | 175.91                        |
| 2020 | 10    | 29  | 2      | 704.4  | 0.561194      | 182.4            | 303.0            | 443.3            |                       | -                             | 88.64                         | 228.94                        |
| 2020 | 10    | 29  | 3      | 698.2  | 0.70169       | 228.0            | 378.9            | 554.3            |                       | 19.85                         | 170.71                        | 346.14                        |
| 2020 | 10    | 29  | 4      | 700.5  | 0.694264      | 225.6            | 374.9            | 548.5            |                       | 15.14                         | 164.40                        | 337.97                        |
| 2020 | 10    | 29  | 5      | 753    | 0.575212      | 186.9            | 310.6            | 454.4            |                       | -                             | 47.61                         | 191.42                        |
| 2020 | 10    | 29  | 6      | 852.2  | 0.504246      | 163.9            | 272.3            | 398.4            |                       | -                             | -                             | 36.15                         |
| 2020 | 10    | 29  | 7      | 992.8  | 0.453386      | 147.4            | 244.8            | 358.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 8      | 1069.6 | 0.311993      | 101.4            | 168.5            | 246.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 9      | 1108.4 | 0.286385      | 93.1             | 154.6            | 226.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 10     | 1102.5 | 0.189901      | 61.7             | 102.5            | 150.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 11     | 1099.1 | 0.19287       | 62.7             | 104.1            | 152.4            |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 12     | 1074.9 | 0.153747      | 50.0             | 83.0             | 121.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 13     | 1082.9 | 0.117475      | 38.2             | 63.4             | 92.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 14     | 1044.6 | 0.084576      | 27.5             | 45.7             | 66.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 15     | 1013.4 | 0.073243      | 23.8             | 39.6             | 57.9             |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 16     | 1074.9 | 0.05011       | 16.3             | 27.1             | 39.6             |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 17     | 1124.7 | 0.03331       | 10.8             | 18.0             | 26.3             |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 18     | 1057.5 | 0.03314       | 10.8             | 17.9             | 26.2             |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 19     | 1064.2 | 0.07284       | 23.7             | 39.3             | 57.5             |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 20     | 1065   | 0.075683      | 24.6             | 40.9             | 59.8             |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 21     | 1001.3 | 0.067169      | 21.8             | 36.3             | 53.1             |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 22     | 935.7  | 0.12996       | 42.2             | 70.2             | 102.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 23     | 853.5  | 0.160824      | 52.3             | 86.8             | 127.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 29  | 24     | 778    | 0.346095      | 112.5            | 186.9            | 273.4            |                       | -                             | -                             | -                             |
| 2020 | 10    | 30  | 1      | 719.8  | 0.36595       | 118.9            | 197.6            | 289.1            |                       | -                             | -                             | 59.30                         |
| 2020 | 10    | 30  | 2      | 703.8  | 0.491837      | 159.8            | 265.6            | 388.6            |                       | -                             | 51.79                         | 174.75                        |
| 2020 | 10    | 30  | 3      | 694.8  | 0.504829      | 164.1            | 272.6            | 398.8            |                       | -                             | 67.81                         | 194.01                        |
| 2020 | 10    | 30  | 4      | 697.1  | 0.451112      | 146.6            | 243.6            | 356.4            |                       | -                             | 36.50                         | 149.28                        |
| 2020 | 10    | 30  | 5      | 749.9  | 0.588866      | 191.4            | 318.0            | 465.2            |                       | -                             | 58.09                         | 205.30                        |
| 2020 | 10    | 30  | 6      | 865.6  | 0.724387      | 235.4            | 391.2            | 572.3            |                       | -                             | 15.57                         | 196.67                        |
| 2020 | 10    | 30  | 7      | 1001.7 | 0.763838      | 248.2            | 412.5            | 603.4            |                       | -                             | -                             | 91.73                         |
| 2020 | 10    | 30  | 8      | 1116.3 | 0.842099      | 273.7            | 454.7            | 665.3            |                       | -                             | -                             | 38.96                         |
| 2020 | 10    | 30  | 9      | 1131.9 | 0.813449      | 264.4            | 439.3            | 642.6            |                       | -                             | -                             | 0.72                          |
| 2020 | 10    | 30  | 10     | 1132.8 | 0.803411      | 261.1            | 433.8            | 634.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 30  | 11     | 1118.9 | 0.809727      | 263.2            | 437.3            | 639.7            |                       | -                             | -                             | 10.78                         |
| 2020 | 10    | 30  | 12     | 1081.1 | 0.817541      | 265.7            | 441.5            | 645.9            |                       | -                             | -                             | 54.76                         |
| 2020 | 10    | 30  | 13     | 1097.5 | 0.812461      | 264.0            | 438.7            | 641.8            |                       | -                             | -                             | 34.34                         |
| 2020 | 10    | 30  | 14     | 1077.6 | 0.804341      | 261.4            | 434.3            | 635.4            |                       | -                             | -                             | 47.83                         |
| 2020 | 10    | 30  | 15     | 1093.9 | 0.746555      | 242.6            | 403.1            | 589.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 30  | 16     | 1145   | 0.78792       | 256.1            | 425.5            | 622.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 30  | 17     | 1160   | 0.680911      | 221.3            | 367.7            | 537.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 30  | 18     | 1124.8 | 0.529385      | 172.1            | 285.9            | 418.2            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 10    | 30  | 19     | 1122.2 | 0.569449      | 185.1            | 307.5            | 449.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 30  | 20     | 1044.6 | 0.553185      | 179.8            | 298.7            | 437.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 30  | 21     | 1023.1 | 0.548918      | 178.4            | 296.4            | 433.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 30  | 22     | 976.8  | 0.559384      | 181.8            | 302.1            | 441.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 30  | 23     | 930.8  | 0.57975       | 188.4            | 313.1            | 458.0            |                       | -                             | -                             | 17.20                         |
| 2020 | 10    | 30  | 24     | 882.6  | 0.630852      | 205.0            | 340.7            | 498.4            |                       | -                             | -                             | 105.77                        |
| 2020 | 10    | 31  | 1      | 796.3  | 0.662082      | 215.2            | 357.5            | 523.0            |                       | -                             | 51.22                         | 216.74                        |
| 2020 | 10    | 31  | 2      | 783.6  | 0.721889      | 234.6            | 389.8            | 570.3            |                       | -                             | 96.22                         | 276.69                        |
| 2020 | 10    | 31  | 3      | 770.9  | 0.686285      | 223.0            | 370.6            | 542.2            |                       | -                             | 89.69                         | 261.26                        |
| 2020 | 10    | 31  | 4      | 758.1  | 0.659286      | 214.3            | 356.0            | 520.8            |                       | -                             | 87.91                         | 252.74                        |
| 2020 | 10    | 31  | 5      | 808.3  | 0.624534      | 203.0            | 337.2            | 493.4            |                       | -                             | 18.95                         | 175.08                        |
| 2020 | 10    | 31  | 6      | 833.4  | 0.577464      | 187.7            | 311.8            | 456.2            |                       | -                             | -                             | 112.80                        |
| 2020 | 10    | 31  | 7      | 933.4  | 0.571512      | 185.7            | 308.6            | 451.5            |                       | -                             | -                             | 8.09                          |
| 2020 | 10    | 31  | 8      | 1030.2 | 0.523316      | 170.1            | 282.6            | 413.4            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 9      | 1073.7 | 0.631364      | 205.2            | 340.9            | 498.8            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 10     | 1072.4 | 0.606356      | 197.1            | 327.4            | 479.0            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 11     | 1113.4 | 0.538296      | 174.9            | 290.7            | 425.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 12     | 1072.4 | 0.477388      | 155.2            | 257.8            | 377.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 13     | 1041.7 | 0.451447      | 146.7            | 243.8            | 356.6            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 14     | 966.7  | 0.426223      | 138.5            | 230.2            | 336.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 15     | 999.7  | 0.448975      | 145.9            | 242.4            | 354.7            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 16     | 1062.9 | 0.410779      | 133.5            | 221.8            | 324.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 17     | 1147.3 | 0.330964      | 107.6            | 178.7            | 261.5            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 18     | 1232.1 | 0.48995       | 159.2            | 264.6            | 387.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 19     | 1218.5 | 0.352312      | 114.5            | 190.2            | 278.3            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 20     | 1172.9 | 0.382404      | 124.3            | 206.5            | 302.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 21     | 1131.4 | 0.416547      | 135.4            | 224.9            | 329.1            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 22     | 1037.9 | 0.330314      | 107.4            | 178.4            | 260.9            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 23     | 1001   | 0.252155      | 82.0             | 136.2            | 199.2            |                       | -                             | -                             | -                             |
| 2020 | 10    | 31  | 24     | 923.8  | 0.191458      | 62.2             | 103.4            | 151.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 1      | 851.7  | 0.183224      | 59.5             | 98.9             | 144.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 2      | 827.6  | 0.161482      | 52.5             | 87.2             | 127.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 3      | 818.4  | 0.110133      | 35.8             | 59.5             | 87.0             |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 4      | 803    | 0.079807      | 25.9             | 43.1             | 63.0             |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 5      | 808.8  | 0.044384      | 14.4             | 24.0             | 35.1             |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 6      | 853    | 0.016443      | 5.3              | 8.9              | 13.0             |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 7      | 879.5  | 0.019808      | 6.4              | 10.7             | 15.6             |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 8      | 984.5  | 0.025319      | 8.2              | 13.7             | 20.0             |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 9      | 1117.7 | 0.021497      | 7.0              | 11.6             | 17.0             |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 10     | 1173.6 | 0.017915      | 5.8              | 9.7              | 14.2             |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 11     | 1214.5 | 0.016043      | 5.2              | 8.7              | 12.7             |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 12     | 1151.9 | 0.019721      | 6.4              | 10.6             | 15.6             |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 13     | 1081.6 | 0.033376      | 10.8             | 18.0             | 26.4             |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 14     | 1074.3 | 0.052097      | 16.9             | 28.1             | 41.2             |                       | -                             | -                             | -                             |
| 2020 | 11    | 1   | 15     | 1116.5 | 0.026989      | 8.8              | 14.6             | 21.3             |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 11    | 1   | 16     | 1148.4 | 0.030844   | 10.0          | 16.7          | 24.4          |                    | -                          | -                          | -                          |
| 2020 | 11    | 1   | 17     | 1100.1 | 0.049794   | 16.2          | 26.9          | 39.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 1   | 18     | 1118.8 | 0.045946   | 14.9          | 24.8          | 36.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 1   | 19     | 1126.5 | 0.065855   | 21.4          | 35.6          | 52.0          |                    | -                          | -                          | -                          |
| 2020 | 11    | 1   | 20     | 1114.5 | 0.128588   | 41.8          | 69.4          | 101.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 1   | 21     | 1109.9 | 0.109547   | 35.6          | 59.2          | 86.5          |                    | -                          | -                          | -                          |
| 2020 | 11    | 1   | 22     | 1015.4 | 0.106768   | 34.7          | 57.7          | 84.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 1   | 23     | 911.4  | 0.059884   | 19.5          | 32.3          | 47.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 1   | 24     | 833.7  | 0.065821   | 21.4          | 35.5          | 52.0          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 1      | 804.6  | 0.033081   | 10.8          | 17.9          | 26.1          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 2      | 782.3  | 0.018223   | 5.9           | 9.8           | 14.4          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 3      | 802.1  | 0.018474   | 6.0           | 10.0          | 14.6          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 4      | 807.1  | 0.018005   | 5.9           | 9.7           | 14.2          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 5      | 847.8  | 0.02454    | 8.0           | 13.3          | 19.4          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 6      | 975.6  | 0.037116   | 12.1          | 20.0          | 29.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 7      | 1124.1 | 0.040736   | 13.2          | 22.0          | 32.2          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 8      | 1295.7 | 0.048623   | 15.8          | 26.3          | 38.4          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 9      | 1271.7 | 0.040997   | 13.3          | 22.1          | 32.4          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 10     | 1235.2 | 0.023349   | 7.6           | 12.6          | 18.4          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 11     | 1205.8 | 0.039136   | 12.7          | 21.1          | 30.9          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 12     | 1219.4 | 0.034497   | 11.2          | 18.6          | 27.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 13     | 1183.4 | 0.056718   | 18.4          | 30.6          | 44.8          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 14     | 1129.7 | 0.099109   | 32.2          | 53.5          | 78.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 15     | 1148.8 | 0.123296   | 40.1          | 66.6          | 97.4          |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 16     | 1213.1 | 0.128016   | 41.6          | 69.1          | 101.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 17     | 1307   | 0.173253   | 56.3          | 93.6          | 136.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 18     | 1314.1 | 0.347128   | 112.8         | 187.4         | 274.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 19     | 1298.5 | 0.388395   | 126.2         | 209.7         | 306.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 20     | 1277.4 | 0.39792    | 129.3         | 214.9         | 314.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 21     | 1166.4 | 0.451054   | 146.6         | 243.6         | 356.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 22     | 1070.6 | 0.419535   | 136.3         | 226.5         | 331.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 23     | 1016.4 | 0.379597   | 123.4         | 205.0         | 299.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 2   | 24     | 937.4  | 0.339808   | 110.4         | 183.5         | 268.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 3   | 1      | 873.9  | 0.353585   | 114.9         | 190.9         | 279.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 3   | 2      | 841.9  | 0.399981   | 130.0         | 216.0         | 316.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 3   | 3      | 830.9  | 0.416353   | 135.3         | 224.8         | 328.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 3   | 4      | 860.1  | 0.499986   | 162.5         | 270.0         | 395.0         |                    | -                          | -                          | 24.89                      |
| 2020 | 11    | 3   | 5      | 918.9  | 0.497244   | 161.6         | 268.5         | 392.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 3   | 6      | 1039.9 | 0.5107     | 166.0         | 275.8         | 403.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 3   | 7      | 1193.9 | 0.551649   | 179.3         | 297.9         | 435.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 3   | 8      | 1321.5 | 0.530068   | 172.3         | 286.2         | 418.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 3   | 9      | 1341.3 | 0.470624   | 153.0         | 254.1         | 371.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 3   | 10     | 1310.5 | 0.469037   | 152.4         | 253.3         | 370.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 3   | 11     | 1308.7 | 0.456363   | 148.3         | 246.4         | 360.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 3   | 12     | 1319.5 | 0.457871   | 148.8         | 247.3         | 361.7         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 11    | 3   | 13     | 1288.8 | 0.451653      | 146.8            | 243.9            | 356.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 3   | 14     | 1278.5 | 0.362519      | 117.8            | 195.8            | 286.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 3   | 15     | 1253.9 | 0.379318      | 123.3            | 204.8            | 299.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 3   | 16     | 1403.4 | 0.411373      | 133.7            | 222.1            | 325.0            |                       | -                             | -                             | -                             |
| 2020 | 11    | 3   | 17     | 1441.5 | 0.515926      | 167.7            | 278.6            | 407.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 3   | 18     | 1428.7 | 0.545343      | 177.2            | 294.5            | 430.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 3   | 19     | 1351.1 | 0.550224      | 178.8            | 297.1            | 434.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 3   | 20     | 1276.5 | 0.595835      | 193.6            | 321.8            | 470.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 3   | 21     | 1247.2 | 0.505251      | 164.2            | 272.8            | 399.1            |                       | -                             | -                             | -                             |
| 2020 | 11    | 3   | 22     | 1173.4 | 0.579418      | 188.3            | 312.9            | 457.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 3   | 23     | 1055.2 | 0.52115       | 169.4            | 281.4            | 411.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 3   | 24     | 983.5  | 0.42013       | 136.5            | 226.9            | 331.9            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 1      | 954.9  | 0.394792      | 128.3            | 213.2            | 311.9            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 2      | 917.5  | 0.329692      | 107.1            | 178.0            | 260.5            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 3      | 926.7  | 0.252097      | 81.9             | 136.1            | 199.2            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 4      | 927.3  | 0.273562      | 88.9             | 147.7            | 216.1            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 5      | 982.4  | 0.223122      | 72.5             | 120.5            | 176.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 6      | 1108.5 | 0.251323      | 81.7             | 135.7            | 198.5            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 7      | 1269.8 | 0.45098       | 146.6            | 243.5            | 356.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 8      | 1407.6 | 0.407138      | 132.3            | 219.9            | 321.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 9      | 1385.1 | 0.416017      | 135.2            | 224.6            | 328.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 10     | 1262   | 0.370125      | 120.3            | 199.9            | 292.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 11     | 1268.8 | 0.297111      | 96.6             | 160.4            | 234.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 12     | 1220   | 0.298894      | 97.1             | 161.4            | 236.1            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 13     | 1165.3 | 0.318936      | 103.7            | 172.2            | 252.0            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 14     | 1137   | 0.454844      | 147.8            | 245.6            | 359.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 15     | 1138.1 | 0.490176      | 159.3            | 264.7            | 387.2            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 16     | 1146.1 | 0.665038      | 216.1            | 359.1            | 525.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 17     | 1167.8 | 0.704605      | 229.0            | 380.5            | 556.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 18     | 1227.5 | 0.675439      | 219.5            | 364.7            | 533.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 19     | 1225.8 | 0.624112      | 202.8            | 337.0            | 493.0            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 20     | 1189.6 | 0.565508      | 183.8            | 305.4            | 446.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 21     | 1144.4 | 0.612697      | 199.1            | 330.9            | 484.0            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 22     | 1046.6 | 0.672143      | 218.4            | 363.0            | 531.0            |                       | -                             | -                             | -                             |
| 2020 | 11    | 4   | 23     | 1018   | 0.744236      | 241.9            | 401.9            | 587.9            |                       | -                             | -                             | 59.95                         |
| 2020 | 11    | 4   | 24     | 935.1  | 0.737411      | 239.7            | 398.2            | 582.6            |                       | -                             | -                             | 137.45                        |
| 2020 | 11    | 5   | 1      | 886    | 0.764643      | 248.5            | 412.9            | 604.1            |                       | -                             | 16.91                         | 208.07                        |
| 2020 | 11    | 5   | 2      | 849.8  | 0.877737      | 285.3            | 474.0            | 693.4            |                       | -                             | 114.18                        | 333.61                        |
| 2020 | 11    | 5   | 3      | 859.1  | 0.845102      | 274.7            | 456.4            | 667.6            |                       | -                             | 87.25                         | 298.53                        |
| 2020 | 11    | 5   | 4      | 888.7  | 0.919725      | 298.9            | 496.7            | 726.6            |                       | -                             | 97.95                         | 327.88                        |
| 2020 | 11    | 5   | 5      | 941.1  | 0.871788      | 283.3            | 470.8            | 688.7            |                       | -                             | 19.67                         | 237.61                        |
| 2020 | 11    | 5   | 6      | 1034.6 | 0.925786      | 300.9            | 499.9            | 731.4            |                       | -                             | -                             | 186.77                        |
| 2020 | 11    | 5   | 7      | 1191.8 | 0.862778      | 280.4            | 465.9            | 681.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 5   | 8      | 1333.4 | 0.859508      | 279.3            | 464.1            | 679.0            |                       | -                             | -                             | -                             |
| 2020 | 11    | 5   | 9      | 1369.2 | 0.866908      | 281.7            | 468.1            | 684.9            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 11    | 5   | 10     | 1255.9 | 0.888035   | 288.6         | 479.5         | 701.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 5   | 11     | 1177.1 | 0.841164   | 273.4         | 454.2         | 664.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 5   | 12     | 1140.1 | 0.845935   | 274.9         | 456.8         | 668.3         |                    | -                          | -                          | 18.19                      |
| 2020 | 11    | 5   | 13     | 1102.9 | 0.813081   | 264.3         | 439.1         | 642.3         |                    | -                          | -                          | 29.43                      |
| 2020 | 11    | 5   | 14     | 1119.8 | 0.798621   | 259.6         | 431.3         | 630.9         |                    | -                          | -                          | 1.11                       |
| 2020 | 11    | 5   | 15     | 1185.3 | 0.740533   | 240.7         | 399.9         | 585.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 5   | 16     | 1210.5 | 0.653455   | 212.4         | 352.9         | 516.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 5   | 17     | 1260.7 | 0.565211   | 183.7         | 305.2         | 446.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 5   | 18     | 1212.5 | 0.493179   | 160.3         | 266.3         | 389.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 5   | 19     | 1261.3 | 0.419213   | 136.2         | 226.4         | 331.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 5   | 20     | 1157.6 | 0.381385   | 124.0         | 205.9         | 301.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 5   | 21     | 1096.1 | 0.294734   | 95.8          | 159.2         | 232.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 5   | 22     | 1008.8 | 0.159836   | 51.9          | 86.3          | 126.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 5   | 23     | 978.3  | 0.182577   | 59.3          | 98.6          | 144.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 5   | 24     | 873.9  | 0.190916   | 62.0          | 103.1         | 150.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 6   | 1      | 805.9  | 0.295812   | 96.1          | 159.7         | 233.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 6   | 2      | 778.2  | 0.444641   | 144.5         | 240.1         | 351.3         |                    | -                          | -                          | 63.07                      |
| 2020 | 11    | 6   | 3      | 765.2  | 0.372948   | 121.2         | 201.4         | 294.6         |                    | -                          | -                          | 19.43                      |
| 2020 | 11    | 6   | 4      | 777.2  | 0.470535   | 152.9         | 254.1         | 371.7         |                    | -                          | -                          | 84.52                      |
| 2020 | 11    | 6   | 5      | 816.2  | 0.585113   | 190.2         | 316.0         | 462.2         |                    | -                          | -                          | 136.04                     |
| 2020 | 11    | 6   | 6      | 903.3  | 0.632806   | 205.7         | 341.7         | 499.9         |                    | -                          | -                          | 86.62                      |
| 2020 | 11    | 6   | 7      | 1036.7 | 0.674742   | 219.3         | 364.4         | 533.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 6   | 8      | 1162.9 | 0.628672   | 204.3         | 339.5         | 496.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 6   | 9      | 1153.8 | 0.65784    | 213.8         | 355.2         | 519.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 6   | 10     | 1143.3 | 0.622656   | 202.4         | 336.2         | 491.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 6   | 11     | 1149.8 | 0.675429   | 219.5         | 364.7         | 533.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 6   | 12     | 1114.8 | 0.709575   | 230.6         | 383.2         | 560.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 6   | 13     | 1109.6 | 0.555597   | 180.6         | 300.0         | 438.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 6   | 14     | 1041.6 | 0.629853   | 204.7         | 340.1         | 497.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 6   | 15     | 1034.3 | 0.626293   | 203.5         | 338.2         | 494.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 6   | 16     | 1067.1 | 0.664865   | 216.1         | 359.0         | 525.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 6   | 17     | 1087   | 0.70188    | 228.1         | 379.0         | 554.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 6   | 18     | 1106.1 | 0.750323   | 243.9         | 405.2         | 592.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 6   | 19     | 1035.7 | 0.77106    | 250.6         | 416.4         | 609.1         |                    | -                          | -                          | 63.44                      |
| 2020 | 11    | 6   | 20     | 1013.8 | 0.792878   | 257.7         | 428.2         | 626.4         |                    | -                          | -                          | 102.57                     |
| 2020 | 11    | 6   | 21     | 954.2  | 0.698395   | 227.0         | 377.1         | 551.7         |                    | -                          | -                          | 87.53                      |
| 2020 | 11    | 6   | 22     | 901.3  | 0.581343   | 188.9         | 313.9         | 459.3         |                    | -                          | -                          | 47.96                      |
| 2020 | 11    | 6   | 23     | 860.8  | 0.565692   | 183.8         | 305.5         | 446.9         |                    | -                          | -                          | 76.10                      |
| 2020 | 11    | 6   | 24     | 769.5  | 0.556474   | 180.9         | 300.5         | 439.6         |                    | -                          | 21.00                      | 160.11                     |
| 2020 | 11    | 7   | 1      | 701.5  | 0.525708   | 170.9         | 283.9         | 415.3         |                    | -                          | 72.38                      | 203.81                     |
| 2020 | 11    | 7   | 2      | 679    | 0.432514   | 140.6         | 233.6         | 341.7         |                    | -                          | 44.56                      | 152.69                     |
| 2020 | 11    | 7   | 3      | 686.5  | 0.38735    | 125.9         | 209.2         | 306.0         |                    | -                          | 12.67                      | 109.51                     |
| 2020 | 11    | 7   | 4      | 671.9  | 0.355817   | 115.6         | 192.1         | 281.1         |                    | -                          | 10.24                      | 99.20                      |
| 2020 | 11    | 7   | 5      | 681.6  | 0.31099    | 101.1         | 167.9         | 245.7         |                    | -                          | -                          | 54.08                      |
| 2020 | 11    | 7   | 6      | 724.6  | 0.184346   | 59.9          | 99.5          | 145.6         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 11    | 7   | 7      | 783.2  | 0.155556   | 50.6          | 84.0          | 122.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 8      | 845.5  | 0.065139   | 21.2          | 35.2          | 51.5          |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 9      | 941.7  | 0.050316   | 16.4          | 27.2          | 39.7          |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 10     | 985.7  | 0.130276   | 42.3          | 70.3          | 102.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 11     | 1032.4 | 0.191595   | 62.3          | 103.5         | 151.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 12     | 1026.4 | 0.138558   | 45.0          | 74.8          | 109.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 13     | 1013.8 | 0.093866   | 30.5          | 50.7          | 74.2          |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 14     | 987    | 0.191418   | 62.2          | 103.4         | 151.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 15     | 983    | 0.289899   | 94.2          | 156.5         | 229.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 16     | 1004   | 0.411846   | 133.9         | 222.4         | 325.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 17     | 1065.6 | 0.600105   | 195.0         | 324.1         | 474.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 18     | 1111.2 | 0.580328   | 188.6         | 313.4         | 458.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 19     | 1068.5 | 0.636958   | 207.0         | 344.0         | 503.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 20     | 1063.9 | 0.545414   | 177.3         | 294.5         | 430.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 21     | 944    | 0.563666   | 183.2         | 304.4         | 445.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 7   | 22     | 918.5  | 0.578673   | 188.1         | 312.5         | 457.2         |                    | -                          | -                          | 28.65                      |
| 2020 | 11    | 7   | 23     | 859.6  | 0.540764   | 175.7         | 292.0         | 427.2         |                    | -                          | -                          | 57.60                      |
| 2020 | 11    | 7   | 24     | 796    | 0.531434   | 172.7         | 287.0         | 419.8         |                    | -                          | -                          | 113.83                     |
| 2020 | 11    | 8   | 1      | 749.1  | 0.639611   | 207.9         | 345.4         | 505.3         |                    | -                          | 86.29                      | 246.19                     |
| 2020 | 11    | 8   | 2      | 728.5  | 0.591611   | 192.3         | 319.5         | 467.4         |                    | -                          | 80.97                      | 228.87                     |
| 2020 | 11    | 8   | 3      | 707.1  | 0.500375   | 162.6         | 270.2         | 395.3         |                    | -                          | 53.10                      | 178.20                     |
| 2020 | 11    | 8   | 4      | 699.9  | 0.515471   | 167.5         | 278.4         | 407.2         |                    | -                          | 68.45                      | 197.32                     |
| 2020 | 11    | 8   | 5      | 727.3  | 0.517171   | 168.1         | 279.3         | 408.6         |                    | -                          | 41.97                      | 171.27                     |
| 2020 | 11    | 8   | 6      | 735.2  | 0.563509   | 183.1         | 304.3         | 445.2         |                    | -                          | 59.10                      | 199.97                     |
| 2020 | 11    | 8   | 7      | 743.9  | 0.5318     | 172.8         | 287.2         | 420.1         |                    | -                          | 33.27                      | 166.22                     |
| 2020 | 11    | 8   | 8      | 799.3  | 0.394798   | 128.3         | 213.2         | 311.9         |                    | -                          | -                          | 2.59                       |
| 2020 | 11    | 8   | 9      | 844.6  | 0.360084   | 117.0         | 194.4         | 284.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 10     | 944.2  | 0.368954   | 119.9         | 199.2         | 291.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 11     | 972.7  | 0.338867   | 110.1         | 183.0         | 267.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 12     | 971.1  | 0.392257   | 127.5         | 211.8         | 309.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 13     | 964.2  | 0.289022   | 93.9          | 156.1         | 228.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 14     | 968.7  | 0.2628     | 85.4          | 141.9         | 207.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 15     | 952.5  | 0.202124   | 65.7          | 109.1         | 159.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 16     | 972.5  | 0.178631   | 58.1          | 96.5          | 141.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 17     | 994.4  | 0.163389   | 53.1          | 88.2          | 129.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 18     | 1095.4 | 0.205303   | 66.7          | 110.9         | 162.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 19     | 1107.4 | 0.279805   | 90.9          | 151.1         | 221.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 20     | 1050.3 | 0.277023   | 90.0          | 149.6         | 218.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 21     | 1000.3 | 0.224825   | 73.1          | 121.4         | 177.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 22     | 979.9  | 0.213322   | 69.3          | 115.2         | 168.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 23     | 891.3  | 0.160784   | 52.3          | 86.8          | 127.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 8   | 24     | 789.2  | 0.133522   | 43.4          | 72.1          | 105.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 1      | 732.1  | 0.041888   | 13.6          | 22.6          | 33.1          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 2      | 690.3  | 0.022337   | 7.3           | 12.1          | 17.6          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 3      | 674.9  | 0.027156   | 8.8           | 14.7          | 21.5          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 11    | 9   | 4      | 670.8  | 0.018585   | 6.0           | 10.0          | 14.7          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 5      | 690.8  | 0.015228   | 4.9           | 8.2           | 12.0          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 6      | 732.3  | 0.014363   | 4.7           | 7.8           | 11.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 7      | 835.9  | 0.016511   | 5.4           | 8.9           | 13.0          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 8      | 957.5  | 0.011979   | 3.9           | 6.5           | 9.5           |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 9      | 1075.8 | 0.011663   | 3.8           | 6.3           | 9.2           |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 10     | 1107.6 | 0.015174   | 4.9           | 8.2           | 12.0          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 11     | 1101.9 | 0.017809   | 5.8           | 9.6           | 14.1          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 12     | 1068   | 0.015563   | 5.1           | 8.4           | 12.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 13     | 1067.5 | 0.025849   | 8.4           | 14.0          | 20.4          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 14     | 1061.3 | 0.026294   | 8.5           | 14.2          | 20.8          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 15     | 1030   | 0.028003   | 9.1           | 15.1          | 22.1          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 16     | 1063   | 0.049769   | 16.2          | 26.9          | 39.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 17     | 1116.4 | 0.074771   | 24.3          | 40.4          | 59.1          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 18     | 1176.7 | 0.107976   | 35.1          | 58.3          | 85.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 19     | 1138.8 | 0.109952   | 35.7          | 59.4          | 86.9          |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 20     | 1126.7 | 0.141434   | 46.0          | 76.4          | 111.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 21     | 1080.1 | 0.159391   | 51.8          | 86.1          | 125.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 22     | 983.5  | 0.247149   | 80.3          | 133.5         | 195.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 23     | 900.5  | 0.312732   | 101.6         | 168.9         | 247.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 9   | 24     | 838.3  | 0.26636    | 86.6          | 143.8         | 210.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 1      | 770.1  | 0.364266   | 118.4         | 196.7         | 287.8         |                    | -                          | -                          | 7.67                       |
| 2020 | 11    | 10  | 2      | 739.1  | 0.425888   | 138.4         | 230.0         | 336.5         |                    | -                          | -                          | 87.35                      |
| 2020 | 11    | 10  | 3      | 729    | 0.421323   | 136.9         | 227.5         | 332.8         |                    | -                          | -                          | 93.85                      |
| 2020 | 11    | 10  | 4      | 703.2  | 0.465332   | 151.2         | 251.3         | 367.6         |                    | -                          | 38.08                      | 154.41                     |
| 2020 | 11    | 10  | 5      | 734.7  | 0.46792    | 152.1         | 252.7         | 369.7         |                    | -                          | 7.98                       | 124.96                     |
| 2020 | 11    | 10  | 6      | 761.7  | 0.5123     | 166.5         | 276.6         | 404.7         |                    | -                          | 4.94                       | 133.02                     |
| 2020 | 11    | 10  | 7      | 847.9  | 0.565733   | 183.9         | 305.5         | 446.9         |                    | -                          | -                          | 89.03                      |
| 2020 | 11    | 10  | 8      | 968.8  | 0.546792   | 177.7         | 295.3         | 432.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 9      | 1075.1 | 0.489526   | 159.1         | 264.3         | 386.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 10     | 1100.6 | 0.445157   | 144.7         | 240.4         | 351.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 11     | 1097.1 | 0.460192   | 149.6         | 248.5         | 363.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 12     | 1128.3 | 0.458045   | 148.9         | 247.3         | 361.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 13     | 1130.6 | 0.457358   | 148.6         | 247.0         | 361.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 14     | 1058.8 | 0.464992   | 151.1         | 251.1         | 367.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 15     | 1026   | 0.604145   | 196.3         | 326.2         | 477.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 16     | 1052.9 | 0.589466   | 191.6         | 318.3         | 465.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 17     | 1127.9 | 0.604434   | 196.4         | 326.4         | 477.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 18     | 1210.8 | 0.690466   | 224.4         | 372.9         | 545.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 19     | 1240.9 | 0.628797   | 204.4         | 339.6         | 496.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 20     | 1201.2 | 0.634634   | 206.3         | 342.7         | 501.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 21     | 1152.7 | 0.700009   | 227.5         | 378.0         | 553.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 10  | 22     | 1056.4 | 0.751655   | 244.3         | 405.9         | 593.8         |                    | -                          | -                          | 27.41                      |
| 2020 | 11    | 10  | 23     | 962.3  | 0.802466   | 260.8         | 433.3         | 633.9         |                    | -                          | -                          | 161.65                     |
| 2020 | 11    | 10  | 24     | 937.1  | 0.893941   | 290.5         | 482.7         | 706.2         |                    | -                          | 35.63                      | 259.11                     |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 11    | 11  | 1      | 890.4  | 0.927578      | 301.5            | 500.9            | 732.8            |                       | -                             | 100.49                        | 332.39                        |
| 2020 | 11    | 11  | 2      | 828.5  | 0.883258      | 287.1            | 477.0            | 697.8            |                       | -                             | 138.46                        | 359.27                        |
| 2020 | 11    | 11  | 3      | 829.9  | 0.883982      | 287.3            | 477.4            | 698.3            |                       | -                             | 137.45                        | 358.45                        |
| 2020 | 11    | 11  | 4      | 816.8  | 0.945858      | 307.4            | 510.8            | 747.2            |                       | -                             | 183.96                        | 420.43                        |
| 2020 | 11    | 11  | 5      | 842.2  | 0.95089       | 309.0            | 513.5            | 751.2            |                       | -                             | 161.28                        | 399.00                        |
| 2020 | 11    | 11  | 6      | 872    | 0.938532      | 305.0            | 506.8            | 741.4            |                       | -                             | 124.81                        | 359.44                        |
| 2020 | 11    | 11  | 7      | 977.1  | 0.887334      | 288.4            | 479.2            | 701.0            |                       | -                             | -                             | 213.89                        |
| 2020 | 11    | 11  | 8      | 1124.6 | 0.898689      | 292.1            | 485.3            | 710.0            |                       | -                             | -                             | 75.36                         |
| 2020 | 11    | 11  | 9      | 1237.2 | 0.846908      | 275.2            | 457.3            | 669.1            |                       | -                             | -                             | -                             |
| 2020 | 11    | 11  | 10     | 1243.3 | 0.643331      | 209.1            | 347.4            | 508.2            |                       | -                             | -                             | -                             |
| 2020 | 11    | 11  | 11     | 1265.2 | 0.661236      | 214.9            | 357.1            | 522.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 11  | 12     | 1276.9 | 0.753729      | 245.0            | 407.0            | 595.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 11  | 13     | 1284.7 | 0.766261      | 249.0            | 413.8            | 605.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 11  | 14     | 1250.2 | 0.826289      | 268.5            | 446.2            | 652.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 11  | 15     | 1268   | 0.870141      | 282.8            | 469.9            | 687.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 11  | 16     | 1304.1 | 0.845142      | 274.7            | 456.4            | 667.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 11  | 17     | 1288.4 | 0.7994        | 259.8            | 431.7            | 631.5            |                       | -                             | -                             | -                             |
| 2020 | 11    | 11  | 18     | 1354.9 | 0.815347      | 265.0            | 440.3            | 644.1            |                       | -                             | -                             | -                             |
| 2020 | 11    | 11  | 19     | 1312.2 | 0.836884      | 272.0            | 451.9            | 661.1            |                       | -                             | -                             | -                             |
| 2020 | 11    | 11  | 20     | 1252.6 | 0.865623      | 281.3            | 467.4            | 683.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 11  | 21     | 1208.1 | 0.843536      | 274.1            | 455.5            | 666.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 11  | 22     | 1099.9 | 0.887843      | 288.5            | 479.4            | 701.4            |                       | -                             | -                             | 91.50                         |
| 2020 | 11    | 11  | 23     | 1053.7 | 0.882442      | 286.8            | 476.5            | 697.1            |                       | -                             | -                             | 133.43                        |
| 2020 | 11    | 11  | 24     | 1040.9 | 0.86503       | 281.1            | 467.1            | 683.4            |                       | -                             | -                             | 132.47                        |
| 2020 | 11    | 12  | 1      | 974.1  | 0.882049      | 286.7            | 476.3            | 696.8            |                       | -                             | -                             | 212.72                        |
| 2020 | 11    | 12  | 2      | 878.5  | 0.850752      | 276.5            | 459.4            | 672.1            |                       | -                             | 70.91                         | 283.59                        |
| 2020 | 11    | 12  | 3      | 865.8  | 0.829641      | 269.6            | 448.0            | 655.4            |                       | -                             | 72.21                         | 279.62                        |
| 2020 | 11    | 12  | 4      | 866.4  | 0.748517      | 243.3            | 404.2            | 591.3            |                       | -                             | 27.80                         | 214.93                        |
| 2020 | 11    | 12  | 5      | 868.2  | 0.811933      | 263.9            | 438.4            | 641.4            |                       | -                             | 60.24                         | 263.23                        |
| 2020 | 11    | 12  | 6      | 906.6  | 0.797115      | 259.1            | 430.4            | 629.7            |                       | -                             | 13.84                         | 213.12                        |
| 2020 | 11    | 12  | 7      | 959.1  | 0.76905       | 249.9            | 415.3            | 607.5            |                       | -                             | -                             | 138.45                        |
| 2020 | 11    | 12  | 8      | 1090   | 0.72502       | 235.6            | 391.5            | 572.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 12  | 9      | 1142.9 | 0.714659      | 232.3            | 385.9            | 564.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 12  | 10     | 1124.9 | 0.702964      | 228.5            | 379.6            | 555.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 12  | 11     | 1095.2 | 0.710904      | 231.0            | 383.9            | 561.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 12  | 12     | 1059.2 | 0.803874      | 261.3            | 434.1            | 635.1            |                       | -                             | -                             | 65.86                         |
| 2020 | 11    | 12  | 13     | 1012.6 | 0.786159      | 255.5            | 424.5            | 621.1            |                       | -                             | -                             | 98.47                         |
| 2020 | 11    | 12  | 14     | 987.6  | 0.739701      | 240.4            | 399.4            | 584.4            |                       | -                             | -                             | 86.76                         |
| 2020 | 11    | 12  | 15     | 959.8  | 0.599818      | 194.9            | 323.9            | 473.9            |                       | -                             | -                             | 4.06                          |
| 2020 | 11    | 12  | 16     | 968.1  | 0.51446       | 167.2            | 277.8            | 406.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 12  | 17     | 1045.6 | 0.518785      | 168.6            | 280.1            | 409.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 12  | 18     | 1195   | 0.52889       | 171.9            | 285.6            | 417.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 12  | 19     | 1197.5 | 0.565815      | 183.9            | 305.5            | 447.0            |                       | -                             | -                             | -                             |
| 2020 | 11    | 12  | 20     | 1147.5 | 0.509972      | 165.7            | 275.4            | 402.9            |                       | -                             | -                             | -                             |
| 2020 | 11    | 12  | 21     | 1134.5 | 0.481288      | 156.4            | 259.9            | 380.2            |                       | -                             | -                             | -                             |



| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 11    | 12  | 22     | 1086.8 | 0.43006    | 139.8         | 232.2         | 339.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 12  | 23     | 1048.7 | 0.39675    | 128.9         | 214.2         | 313.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 12  | 24     | 966.6  | 0.465142   | 151.2         | 251.2         | 367.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 1      | 913.5  | 0.473498   | 153.9         | 255.7         | 374.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 2      | 856.2  | 0.328127   | 106.6         | 177.2         | 259.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 3      | 838.6  | 0.339857   | 110.5         | 183.5         | 268.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 4      | 829.1  | 0.298869   | 97.1          | 161.4         | 236.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 5      | 851.6  | 0.340254   | 110.6         | 183.7         | 268.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 6      | 912.3  | 0.247076   | 80.3          | 133.4         | 195.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 7      | 1049.5 | 0.25195    | 81.9          | 136.1         | 199.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 8      | 1192.7 | 0.234799   | 76.3          | 126.8         | 185.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 9      | 1258.4 | 0.162642   | 52.9          | 87.8          | 128.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 10     | 1246.3 | 0.130282   | 42.3          | 70.4          | 102.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 11     | 1184.6 | 0.119356   | 38.8          | 64.5          | 94.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 12     | 1156.2 | 0.130886   | 42.5          | 70.7          | 103.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 13     | 1101.3 | 0.14658    | 47.6          | 79.2          | 115.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 14     | 1022   | 0.157346   | 51.1          | 85.0          | 124.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 15     | 999.8  | 0.127481   | 41.4          | 68.8          | 100.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 16     | 1024.4 | 0.145185   | 47.2          | 78.4          | 114.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 17     | 1076.2 | 0.371227   | 120.6         | 200.5         | 293.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 18     | 1129.4 | 0.516828   | 168.0         | 279.1         | 408.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 19     | 1113.4 | 0.59142    | 192.2         | 319.4         | 467.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 20     | 1076.3 | 0.467812   | 152.0         | 252.6         | 369.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 21     | 1044.6 | 0.40766    | 132.5         | 220.1         | 322.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 22     | 1027.6 | 0.463049   | 150.5         | 250.0         | 365.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 23     | 934.4  | 0.513195   | 166.8         | 277.1         | 405.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 13  | 24     | 953.2  | 0.697102   | 226.6         | 376.4         | 550.7         |                    | -                          | -                          | 87.51                      |
| 2020 | 11    | 14  | 1      | 908.1  | 0.71164    | 231.3         | 384.3         | 562.2         |                    | -                          | -                          | 144.10                     |
| 2020 | 11    | 14  | 2      | 856.4  | 0.754447   | 245.2         | 407.4         | 596.0         |                    | -                          | 41.00                      | 229.61                     |
| 2020 | 11    | 14  | 3      | 821    | 0.806944   | 262.3         | 435.7         | 637.5         |                    | -                          | 104.75                     | 306.49                     |
| 2020 | 11    | 14  | 4      | 806.8  | 0.772531   | 251.1         | 417.2         | 610.3         |                    | -                          | 100.37                     | 293.50                     |
| 2020 | 11    | 14  | 5      | 829.1  | 0.798122   | 259.4         | 431.0         | 630.5         |                    | -                          | 91.89                      | 291.42                     |
| 2020 | 11    | 14  | 6      | 860.6  | 0.773788   | 251.5         | 417.8         | 611.3         |                    | -                          | 47.25                      | 240.69                     |
| 2020 | 11    | 14  | 7      | 893.1  | 0.727873   | 236.6         | 393.1         | 575.0         |                    | -                          | -                          | 171.92                     |
| 2020 | 11    | 14  | 8      | 1030.1 | 0.744475   | 242.0         | 402.0         | 588.1         |                    | -                          | -                          | 48.04                      |
| 2020 | 11    | 14  | 9      | 1086.2 | 0.796161   | 258.8         | 429.9         | 629.0         |                    | -                          | -                          | 32.77                      |
| 2020 | 11    | 14  | 10     | 1053.3 | 0.821607   | 267.0         | 443.7         | 649.1         |                    | -                          | -                          | 85.77                      |
| 2020 | 11    | 14  | 11     | 1021.1 | 0.722721   | 234.9         | 390.3         | 570.9         |                    | -                          | -                          | 39.85                      |
| 2020 | 11    | 14  | 12     | 962.9  | 0.765835   | 248.9         | 413.6         | 605.0         |                    | -                          | -                          | 132.11                     |
| 2020 | 11    | 14  | 13     | 917    | 0.841477   | 273.5         | 454.4         | 664.8         |                    | -                          | 27.40                      | 237.77                     |
| 2020 | 11    | 14  | 14     | 898.8  | 0.847821   | 275.5         | 457.8         | 669.8         |                    | -                          | 49.02                      | 260.98                     |
| 2020 | 11    | 14  | 15     | 888.8  | 0.867515   | 281.9         | 468.5         | 685.3         |                    | -                          | 69.66                      | 286.54                     |
| 2020 | 11    | 14  | 16     | 883.1  | 0.896254   | 291.3         | 484.0         | 708.0         |                    | -                          | 90.88                      | 314.94                     |
| 2020 | 11    | 14  | 17     | 930.3  | 0.916262   | 297.8         | 494.8         | 723.8         |                    | -                          | 54.48                      | 283.55                     |
| 2020 | 11    | 14  | 18     | 1058.9 | 0.919623   | 298.9         | 496.6         | 726.5         |                    | -                          | -                          | 157.60                     |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 11    | 14  | 19     | 1029.8 | 0.916124      | 297.7            | 494.7            | 723.7            |                       | -                             | -                             | 183.94                        |
| 2020 | 11    | 14  | 20     | 1013.3 | 0.864712      | 281.0            | 466.9            | 683.1            |                       | -                             | -                             | 159.82                        |
| 2020 | 11    | 14  | 21     | 987.4  | 0.790997      | 257.1            | 427.1            | 624.9            |                       | -                             | -                             | 127.49                        |
| 2020 | 11    | 14  | 22     | 939.6  | 0.725379      | 235.7            | 391.7            | 573.0            |                       | -                             | -                             | 123.45                        |
| 2020 | 11    | 14  | 23     | 931.6  | 0.711755      | 231.3            | 384.3            | 562.3            |                       | -                             | -                             | 120.69                        |
| 2020 | 11    | 14  | 24     | 852.4  | 0.502283      | 163.2            | 271.2            | 396.8            |                       | -                             | -                             | 34.40                         |
| 2020 | 11    | 15  | 1      | 833    | 0.402333      | 130.8            | 217.3            | 317.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 15  | 2      | 803.5  | 0.562261      | 182.7            | 303.6            | 444.2            |                       | -                             | -                             | 130.69                        |
| 2020 | 11    | 15  | 3      | 777.9  | 0.558303      | 181.4            | 301.5            | 441.1            |                       | -                             | 13.58                         | 153.16                        |
| 2020 | 11    | 15  | 4      | 783.3  | 0.629594      | 204.6            | 340.0            | 497.4            |                       | -                             | 46.68                         | 204.08                        |
| 2020 | 11    | 15  | 5      | 778.3  | 0.627747      | 204.0            | 339.0            | 495.9            |                       | -                             | 50.68                         | 207.62                        |
| 2020 | 11    | 15  | 6      | 801.3  | 0.70084       | 227.8            | 378.5            | 553.7            |                       | -                             | 67.15                         | 242.36                        |
| 2020 | 11    | 15  | 7      | 838.3  | 0.713556      | 231.9            | 385.3            | 563.7            |                       | -                             | 37.02                         | 215.41                        |
| 2020 | 11    | 15  | 8      | 923.3  | 0.613523      | 199.4            | 331.3            | 484.7            |                       | -                             | -                             | 51.38                         |
| 2020 | 11    | 15  | 9      | 985.7  | 0.789235      | 256.5            | 426.2            | 623.5            |                       | -                             | -                             | 127.80                        |
| 2020 | 11    | 15  | 10     | 1012.2 | 0.674613      | 219.2            | 364.3            | 532.9            |                       | -                             | -                             | 10.74                         |
| 2020 | 11    | 15  | 11     | 992.5  | 0.688055      | 223.6            | 371.5            | 543.6            |                       | -                             | -                             | 41.06                         |
| 2020 | 11    | 15  | 12     | 950.9  | 0.7114        | 231.2            | 384.2            | 562.0            |                       | -                             | -                             | 101.11                        |
| 2020 | 11    | 15  | 13     | 959.5  | 0.710275      | 230.8            | 383.5            | 561.1            |                       | -                             | -                             | 91.62                         |
| 2020 | 11    | 15  | 14     | 967.7  | 0.633415      | 205.9            | 342.0            | 500.4            |                       | -                             | -                             | 22.70                         |
| 2020 | 11    | 15  | 15     | 911.6  | 0.600462      | 195.2            | 324.2            | 474.4            |                       | -                             | -                             | 52.77                         |
| 2020 | 11    | 15  | 16     | 962.9  | 0.476362      | 154.8            | 257.2            | 376.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 15  | 17     | 1058   | 0.436675      | 141.9            | 235.8            | 345.0            |                       | -                             | -                             | -                             |
| 2020 | 11    | 15  | 18     | 1204   | 0.390476      | 126.9            | 210.9            | 308.5            |                       | -                             | -                             | -                             |
| 2020 | 11    | 15  | 19     | 1147.9 | 0.415541      | 135.1            | 224.4            | 328.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 15  | 20     | 1107.9 | 0.480434      | 156.1            | 259.4            | 379.5            |                       | -                             | -                             | -                             |
| 2020 | 11    | 15  | 21     | 1070.9 | 0.392268      | 127.5            | 211.8            | 309.9            |                       | -                             | -                             | -                             |
| 2020 | 11    | 15  | 22     | 1035.7 | 0.430831      | 140.0            | 232.6            | 340.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 15  | 23     | 987.8  | 0.497066      | 161.5            | 268.4            | 392.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 15  | 24     | 916.1  | 0.476975      | 155.0            | 257.6            | 376.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 16  | 1      | 853    | 0.488584      | 158.8            | 263.8            | 386.0            |                       | -                             | -                             | 22.98                         |
| 2020 | 11    | 16  | 2      | 845    | 0.552581      | 179.6            | 298.4            | 436.5            |                       | -                             | -                             | 81.54                         |
| 2020 | 11    | 16  | 3      | 855.6  | 0.499459      | 162.3            | 269.7            | 394.6            |                       | -                             | -                             | 28.97                         |
| 2020 | 11    | 16  | 4      | 874.9  | 0.564002      | 183.3            | 304.6            | 445.6            |                       | -                             | -                             | 60.66                         |
| 2020 | 11    | 16  | 5      | 881.1  | 0.301983      | 98.1             | 163.1            | 238.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 16  | 6      | 935.1  | 0.13371       | 43.5             | 72.2             | 105.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 16  | 7      | 1082.9 | 0.046076      | 15.0             | 24.9             | 36.4             |                       | -                             | -                             | -                             |
| 2020 | 11    | 16  | 8      | 1257.4 | 0.046159      | 15.0             | 24.9             | 36.5             |                       | -                             | -                             | -                             |
| 2020 | 11    | 16  | 9      | 1335.1 | 0.036936      | 12.0             | 19.9             | 29.2             |                       | -                             | -                             | -                             |
| 2020 | 11    | 16  | 10     | 1305.9 | 0.09623       | 31.3             | 52.0             | 76.0             |                       | -                             | -                             | -                             |
| 2020 | 11    | 16  | 11     | 1275.3 | 0.129859      | 42.2             | 70.1             | 102.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 16  | 12     | 1221.9 | 0.156618      | 50.9             | 84.6             | 123.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 16  | 13     | 1157.2 | 0.153494      | 49.9             | 82.9             | 121.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 16  | 14     | 1146.7 | 0.124896      | 40.6             | 67.4             | 98.7             |                       | -                             | -                             | -                             |
| 2020 | 11    | 16  | 15     | 1081.2 | 0.128426      | 41.7             | 69.4             | 101.5            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 11    | 16  | 16     | 1100.5 | 0.276474   | 89.9          | 149.3         | 218.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 16  | 17     | 1195.7 | 0.348046   | 113.1         | 187.9         | 275.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 16  | 18     | 1368.1 | 0.339024   | 110.2         | 183.1         | 267.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 16  | 19     | 1330.4 | 0.404756   | 131.5         | 218.6         | 319.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 16  | 20     | 1284.3 | 0.572332   | 186.0         | 309.1         | 452.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 16  | 21     | 1203.7 | 0.621046   | 201.8         | 335.4         | 490.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 16  | 22     | 1099   | 0.605372   | 196.7         | 326.9         | 478.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 16  | 23     | 1028.7 | 0.548563   | 178.3         | 296.2         | 433.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 16  | 24     | 973.8  | 0.562242   | 182.7         | 303.6         | 444.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 1      | 898.8  | 0.508191   | 165.2         | 274.4         | 401.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 2      | 868.9  | 0.475125   | 154.4         | 256.6         | 375.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 3      | 840.2  | 0.349336   | 113.5         | 188.6         | 276.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 4      | 844.7  | 0.188528   | 61.3          | 101.8         | 148.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 5      | 860.9  | 0.074257   | 24.1          | 40.1          | 58.7          |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 6      | 919.1  | 0.078235   | 25.4          | 42.2          | 61.8          |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 7      | 1049.9 | 0.166675   | 54.2          | 90.0          | 131.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 8      | 1215.1 | 0.348393   | 113.2         | 188.1         | 275.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 9      | 1297.2 | 0.286352   | 93.1          | 154.6         | 226.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 10     | 1238.9 | 0.396542   | 128.9         | 214.1         | 313.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 11     | 1224.2 | 0.481059   | 156.3         | 259.8         | 380.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 12     | 1191   | 0.392895   | 127.7         | 212.2         | 310.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 13     | 1212.2 | 0.242841   | 78.9          | 131.1         | 191.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 14     | 1222.7 | 0.187174   | 60.8          | 101.1         | 147.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 15     | 1218.5 | 0.136988   | 44.5          | 74.0          | 108.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 16     | 1249.4 | 0.127027   | 41.3          | 68.6          | 100.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 17     | 1280.4 | 0.173322   | 56.3          | 93.6          | 136.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 18     | 1362.1 | 0.134805   | 43.8          | 72.8          | 106.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 19     | 1281.4 | 0.167953   | 54.6          | 90.7          | 132.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 20     | 1173.8 | 0.291186   | 94.6          | 157.2         | 230.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 21     | 1076.9 | 0.391437   | 127.2         | 211.4         | 309.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 22     | 1042.7 | 0.460616   | 149.7         | 248.7         | 363.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 23     | 958    | 0.586244   | 190.5         | 316.6         | 463.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 17  | 24     | 936.9  | 0.652028   | 211.9         | 352.1         | 515.1         |                    | -                          | -                          | 68.20                      |
| 2020 | 11    | 18  | 1      | 825.3  | 0.65082    | 211.5         | 351.4         | 514.1         |                    | -                          | 16.14                      | 178.85                     |
| 2020 | 11    | 18  | 2      | 770.7  | 0.686924   | 223.3         | 370.9         | 542.7         |                    | -                          | 90.24                      | 261.97                     |
| 2020 | 11    | 18  | 3      | 751    | 0.743207   | 241.5         | 401.3         | 587.1         |                    | -                          | 140.33                     | 326.13                     |
| 2020 | 11    | 18  | 4      | 744.4  | 0.682066   | 221.7         | 368.3         | 538.8         |                    | -                          | 113.92                     | 284.43                     |
| 2020 | 11    | 18  | 5      | 761.7  | 0.688777   | 223.9         | 371.9         | 544.1         |                    | -                          | 100.24                     | 272.43                     |
| 2020 | 11    | 18  | 6      | 807.1  | 0.698652   | 227.1         | 377.3         | 551.9         |                    | -                          | 60.17                      | 234.84                     |
| 2020 | 11    | 18  | 7      | 896    | 0.708882   | 230.4         | 382.8         | 560.0         |                    | -                          | -                          | 154.02                     |
| 2020 | 11    | 18  | 8      | 1029.8 | 0.731422   | 237.7         | 395.0         | 577.8         |                    | -                          | -                          | 38.02                      |
| 2020 | 11    | 18  | 9      | 1121.6 | 0.711565   | 231.3         | 384.2         | 562.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 18  | 10     | 1148.3 | 0.677141   | 220.1         | 365.7         | 534.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 18  | 11     | 1112.2 | 0.702713   | 228.4         | 379.5         | 555.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 18  | 12     | 1137.8 | 0.752715   | 244.6         | 406.5         | 594.6         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 11    | 18  | 13     | 1137.5 | 0.685784   | 222.9         | 370.3         | 541.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 18  | 14     | 1134.2 | 0.6617     | 215.1         | 357.3         | 522.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 18  | 15     | 1091.4 | 0.642932   | 209.0         | 347.2         | 507.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 18  | 16     | 1150.8 | 0.54515    | 177.2         | 294.4         | 430.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 18  | 17     | 1230.4 | 0.611799   | 198.8         | 330.4         | 483.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 18  | 18     | 1339.3 | 0.591709   | 192.3         | 319.5         | 467.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 18  | 19     | 1223.9 | 0.688671   | 223.8         | 371.9         | 544.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 18  | 20     | 1170.5 | 0.654165   | 212.6         | 353.2         | 516.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 18  | 21     | 1135.4 | 0.689088   | 224.0         | 372.1         | 544.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 18  | 22     | 1074.1 | 0.604702   | 196.5         | 326.5         | 477.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 18  | 23     | 976.5  | 0.628209   | 204.2         | 339.2         | 496.3         |                    | -                          | -                          | 9.79                       |
| 2020 | 11    | 18  | 24     | 905.8  | 0.57432    | 186.7         | 310.1         | 453.7         |                    | -                          | -                          | 37.91                      |
| 2020 | 11    | 19  | 1      | 838.1  | 0.531553   | 172.8         | 287.0         | 419.9         |                    | -                          | -                          | 71.83                      |
| 2020 | 11    | 19  | 2      | 806.8  | 0.502429   | 163.3         | 271.3         | 396.9         |                    | -                          | -                          | 80.12                      |
| 2020 | 11    | 19  | 3      | 799.3  | 0.446542   | 145.1         | 241.1         | 352.8         |                    | -                          | -                          | 43.47                      |
| 2020 | 11    | 19  | 4      | 781.4  | 0.500717   | 162.7         | 270.4         | 395.6         |                    | -                          | -                          | 104.17                     |
| 2020 | 11    | 19  | 5      | 803.5  | 0.499104   | 162.2         | 269.5         | 394.3         |                    | -                          | -                          | 80.79                      |
| 2020 | 11    | 19  | 6      | 877.8  | 0.433399   | 140.9         | 234.0         | 342.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 7      | 955.2  | 0.437611   | 142.2         | 236.3         | 345.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 8      | 1089.4 | 0.337062   | 109.5         | 182.0         | 266.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 9      | 1155.2 | 0.376749   | 122.4         | 203.4         | 297.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 10     | 1151.6 | 0.534322   | 173.7         | 288.5         | 422.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 11     | 1165.7 | 0.696268   | 226.3         | 376.0         | 550.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 12     | 1133.2 | 0.739255   | 240.3         | 399.2         | 584.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 13     | 1115.8 | 0.788773   | 256.4         | 425.9         | 623.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 14     | 1061.8 | 0.766763   | 249.2         | 414.1         | 605.7         |                    | -                          | -                          | 33.94                      |
| 2020 | 11    | 19  | 15     | 1088.8 | 0.771807   | 250.8         | 416.8         | 609.7         |                    | -                          | -                          | 10.93                      |
| 2020 | 11    | 19  | 16     | 1132.9 | 0.711028   | 231.1         | 384.0         | 561.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 17     | 1202.1 | 0.785009   | 255.1         | 423.9         | 620.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 18     | 1300.9 | 0.796515   | 258.9         | 430.1         | 629.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 19     | 1255.5 | 0.756661   | 245.9         | 408.6         | 597.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 20     | 1257   | 0.744309   | 241.9         | 401.9         | 588.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 21     | 1115.3 | 0.648385   | 210.7         | 350.1         | 512.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 22     | 1087.7 | 0.678063   | 220.4         | 366.2         | 535.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 19  | 23     | 998.6  | 0.6954     | 226.0         | 375.5         | 549.4         |                    | -                          | -                          | 40.77                      |
| 2020 | 11    | 19  | 24     | 999.1  | 0.775227   | 251.9         | 418.6         | 612.4         |                    | -                          | -                          | 103.33                     |
| 2020 | 11    | 20  | 1      | 942.3  | 0.747858   | 243.1         | 403.8         | 590.8         |                    | -                          | -                          | 138.51                     |
| 2020 | 11    | 20  | 2      | 871    | 0.730581   | 237.4         | 394.5         | 577.2         |                    | -                          | 13.51                      | 196.16                     |
| 2020 | 11    | 20  | 3      | 847.4  | 0.710967   | 231.1         | 383.9         | 561.7         |                    | -                          | 26.52                      | 204.26                     |
| 2020 | 11    | 20  | 4      | 849.8  | 0.670936   | 218.1         | 362.3         | 530.0         |                    | -                          | 2.51                       | 170.24                     |
| 2020 | 11    | 20  | 5      | 853.3  | 0.653515   | 212.4         | 352.9         | 516.3         |                    | -                          | -                          | 152.98                     |
| 2020 | 11    | 20  | 6      | 915.5  | 0.791979   | 257.4         | 427.7         | 625.7         |                    | -                          | 2.17                       | 200.16                     |
| 2020 | 11    | 20  | 7      | 1028.6 | 0.77391    | 251.5         | 417.9         | 611.4         |                    | -                          | -                          | 72.79                      |
| 2020 | 11    | 20  | 8      | 1181.7 | 0.879818   | 285.9         | 475.1         | 695.1         |                    | -                          | -                          | 3.36                       |
| 2020 | 11    | 20  | 9      | 1229.3 | 0.893858   | 290.5         | 482.7         | 706.1         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 11    | 20  | 10     | 1252.3 | 0.912982   | 296.7         | 493.0         | 721.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 20  | 11     | 1231.9 | 0.938202   | 304.9         | 506.6         | 741.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 20  | 12     | 1250.5 | 0.953535   | 309.9         | 514.9         | 753.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 20  | 13     | 1257.8 | 0.94454    | 307.0         | 510.1         | 746.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 20  | 14     | 1247   | 0.958272   | 311.4         | 517.5         | 757.0         |                    | -                          | -                          | 0.03                       |
| 2020 | 11    | 20  | 15     | 1245.1 | 0.927472   | 301.4         | 500.8         | 732.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 20  | 16     | 1248.3 | 0.918652   | 298.6         | 496.1         | 725.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 20  | 17     | 1359.5 | 0.871422   | 283.2         | 470.6         | 688.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 20  | 18     | 1436.8 | 0.874772   | 284.3         | 472.4         | 691.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 20  | 19     | 1360.3 | 0.798116   | 259.4         | 431.0         | 630.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 20  | 20     | 1390.3 | 0.739303   | 240.3         | 399.2         | 584.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 20  | 21     | 1316.7 | 0.551524   | 179.2         | 297.8         | 435.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 20  | 22     | 1277.9 | 0.626518   | 203.6         | 338.3         | 494.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 20  | 23     | 1187.3 | 0.632453   | 205.5         | 341.5         | 499.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 20  | 24     | 1117.9 | 0.620813   | 201.8         | 335.2         | 490.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 1      | 1043.7 | 0.525724   | 170.9         | 283.9         | 415.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 2      | 982.6  | 0.589989   | 191.7         | 318.6         | 466.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 3      | 990.8  | 0.649434   | 211.1         | 350.7         | 513.1         |                    | -                          | -                          | 12.25                      |
| 2020 | 11    | 21  | 4      | 1008.7 | 0.614479   | 199.7         | 331.8         | 485.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 5      | 987.8  | 0.522685   | 169.9         | 282.2         | 412.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 6      | 1009.2 | 0.544765   | 177.0         | 294.2         | 430.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 7      | 1092.3 | 0.473977   | 154.0         | 255.9         | 374.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 8      | 1198.4 | 0.437433   | 142.2         | 236.2         | 345.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 9      | 1302.2 | 0.449775   | 146.2         | 242.9         | 355.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 10     | 1319.1 | 0.479147   | 155.7         | 258.7         | 378.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 11     | 1320.1 | 0.381619   | 124.0         | 206.1         | 301.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 12     | 1291.5 | 0.329515   | 107.1         | 177.9         | 260.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 13     | 1307.7 | 0.297227   | 96.6          | 160.5         | 234.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 14     | 1238   | 0.268277   | 87.2          | 144.9         | 211.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 15     | 1211.2 | 0.24171    | 78.6          | 130.5         | 191.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 16     | 1243   | 0.216089   | 70.2          | 116.7         | 170.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 17     | 1379.6 | 0.21336    | 69.3          | 115.2         | 168.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 18     | 1415.4 | 0.16543    | 53.8          | 89.3          | 130.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 19     | 1342   | 0.105896   | 34.4          | 57.2          | 83.7          |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 20     | 1244.3 | 0.079392   | 25.8          | 42.9          | 62.7          |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 21     | 1254.3 | 0.08605    | 28.0          | 46.5          | 68.0          |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 22     | 1165.1 | 0.047749   | 15.5          | 25.8          | 37.7          |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 23     | 1099.5 | 0.067255   | 21.9          | 36.3          | 53.1          |                    | -                          | -                          | -                          |
| 2020 | 11    | 21  | 24     | 1010.5 | 0.071102   | 23.1          | 38.4          | 56.2          |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 1      | 963.9  | 0.056913   | 18.5          | 30.7          | 45.0          |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 2      | 918.8  | 0.067149   | 21.8          | 36.3          | 53.0          |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 3      | 900.5  | 0.080053   | 26.0          | 43.2          | 63.2          |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 4      | 916.1  | 0.115922   | 37.7          | 62.6          | 91.6          |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 5      | 947.6  | 0.135318   | 44.0          | 73.1          | 106.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 6      | 964.6  | 0.12753    | 41.4          | 68.9          | 100.7         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 11    | 22  | 7      | 1012.4 | 0.148531   | 48.3          | 80.2          | 117.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 8      | 1076   | 0.116596   | 37.9          | 63.0          | 92.1          |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 9      | 1133.9 | 0.116422   | 37.8          | 62.9          | 92.0          |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 10     | 1233.3 | 0.12351    | 40.1          | 66.7          | 97.6          |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 11     | 1232.4 | 0.118539   | 38.5          | 64.0          | 93.6          |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 12     | 1228.5 | 0.128858   | 41.9          | 69.6          | 101.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 13     | 1190   | 0.128091   | 41.6          | 69.2          | 101.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 14     | 1172.7 | 0.099042   | 32.2          | 53.5          | 78.2          |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 15     | 1172.5 | 0.093139   | 30.3          | 50.3          | 73.6          |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 16     | 1185   | 0.068007   | 22.1          | 36.7          | 53.7          |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 17     | 1327.3 | 0.121745   | 39.6          | 65.7          | 96.2          |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 18     | 1432.5 | 0.172588   | 56.1          | 93.2          | 136.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 19     | 1365.9 | 0.26743    | 86.9          | 144.4         | 211.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 20     | 1376.5 | 0.259413   | 84.3          | 140.1         | 204.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 21     | 1341.6 | 0.249612   | 81.1          | 134.8         | 197.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 22     | 1282.3 | 0.2388     | 77.6          | 129.0         | 188.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 23     | 1141.3 | 0.23027    | 74.8          | 124.3         | 181.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 22  | 24     | 1063.3 | 0.137658   | 44.7          | 74.3          | 108.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 1      | 1016.3 | 0.081398   | 26.5          | 44.0          | 64.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 2      | 990.4  | 0.070082   | 22.8          | 37.8          | 55.4          |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 3      | 989.1  | 0.115366   | 37.5          | 62.3          | 91.1          |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 4      | 991.3  | 0.053067   | 17.2          | 28.7          | 41.9          |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 5      | 1045.6 | 0.067348   | 21.9          | 36.4          | 53.2          |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 6      | 1096.4 | 0.068467   | 22.3          | 37.0          | 54.1          |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 7      | 1228   | 0.090438   | 29.4          | 48.8          | 71.4          |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 8      | 1413.4 | 0.095211   | 30.9          | 51.4          | 75.2          |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 9      | 1533.9 | 0.111978   | 36.4          | 60.5          | 88.5          |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 10     | 1464.5 | 0.130892   | 42.5          | 70.7          | 103.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 11     | 1432.8 | 0.144766   | 47.0          | 78.2          | 114.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 12     | 1445.1 | 0.195868   | 63.7          | 105.8         | 154.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 13     | 1371.4 | 0.242909   | 78.9          | 131.2         | 191.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 14     | 1334.1 | 0.359073   | 116.7         | 193.9         | 283.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 15     | 1374.8 | 0.490393   | 159.4         | 264.8         | 387.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 16     | 1401.7 | 0.409101   | 133.0         | 220.9         | 323.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 17     | 1484.8 | 0.55637    | 180.8         | 300.4         | 439.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 18     | 1550.1 | 0.79738    | 259.1         | 430.6         | 629.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 19     | 1506.1 | 0.848551   | 275.8         | 458.2         | 670.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 20     | 1464   | 0.901974   | 293.1         | 487.1         | 712.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 21     | 1437.7 | 0.855342   | 278.0         | 461.9         | 675.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 22     | 1323.6 | 0.843699   | 274.2         | 455.6         | 666.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 23  | 23     | 1178.5 | 0.892663   | 290.1         | 482.0         | 705.2         |                    | -                          | -                          | 16.70                      |
| 2020 | 11    | 23  | 24     | 1126.1 | 0.799478   | 259.8         | 431.7         | 631.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 24  | 1      | 1040.1 | 0.777965   | 252.8         | 420.1         | 614.6         |                    | -                          | -                          | 64.49                      |
| 2020 | 11    | 24  | 2      | 977    | 0.765507   | 248.8         | 413.4         | 604.8         |                    | -                          | -                          | 117.75                     |
| 2020 | 11    | 24  | 3      | 954.9  | 0.772735   | 251.1         | 417.3         | 610.5         |                    | -                          | -                          | 145.56                     |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 11    | 24  | 4      | 955.4  | 0.77586       | 252.2            | 419.0            | 612.9            |                       | -                             | -                             | 147.53                        |
| 2020 | 11    | 24  | 5      | 967.3  | 0.798873      | 259.6            | 431.4            | 631.1            |                       | -                             | -                             | 153.81                        |
| 2020 | 11    | 24  | 6      | 1046.9 | 0.820741      | 266.7            | 443.2            | 648.4            |                       | -                             | -                             | 91.49                         |
| 2020 | 11    | 24  | 7      | 1149.3 | 0.810359      | 263.4            | 437.6            | 640.2            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 8      | 1326.7 | 0.777393      | 252.7            | 419.8            | 614.1            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 9      | 1345.6 | 0.743305      | 241.6            | 401.4            | 587.2            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 10     | 1332.1 | 0.652059      | 211.9            | 352.1            | 515.1            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 11     | 1337.9 | 0.579146      | 188.2            | 312.7            | 457.5            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 12     | 1336.2 | 0.50771       | 165.0            | 274.2            | 401.1            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 13     | 1317.6 | 0.487584      | 158.5            | 263.3            | 385.2            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 14     | 1324.9 | 0.401534      | 130.5            | 216.8            | 317.2            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 15     | 1304.7 | 0.343719      | 111.7            | 185.6            | 271.5            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 16     | 1350.5 | 0.334873      | 108.8            | 180.8            | 264.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 17     | 1425.8 | 0.237238      | 77.1             | 128.1            | 187.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 18     | 1507.4 | 0.282034      | 91.7             | 152.3            | 222.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 19     | 1465.8 | 0.215958      | 70.2             | 116.6            | 170.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 20     | 1477.5 | 0.180479      | 58.7             | 97.5             | 142.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 21     | 1363.9 | 0.204873      | 66.6             | 110.6            | 161.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 22     | 1255.2 | 0.235047      | 76.4             | 126.9            | 185.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 23     | 1112.9 | 0.282129      | 91.7             | 152.3            | 222.9            |                       | -                             | -                             | -                             |
| 2020 | 11    | 24  | 24     | 1071.5 | 0.248934      | 80.9             | 134.4            | 196.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 1      | 991.9  | 0.226924      | 73.8             | 122.5            | 179.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 2      | 937    | 0.192245      | 62.5             | 103.8            | 151.9            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 3      | 903.7  | 0.292834      | 95.2             | 158.1            | 231.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 4      | 906.2  | 0.223168      | 72.5             | 120.5            | 176.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 5      | 917    | 0.182955      | 59.5             | 98.8             | 144.5            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 6      | 981    | 0.157818      | 51.3             | 85.2             | 124.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 7      | 1090.4 | 0.189568      | 61.6             | 102.4            | 149.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 8      | 1252.9 | 0.189313      | 61.5             | 102.2            | 149.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 9      | 1344.4 | 0.199781      | 64.9             | 107.9            | 157.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 10     | 1367.5 | 0.262036      | 85.2             | 141.5            | 207.0            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 11     | 1354.2 | 0.330378      | 107.4            | 178.4            | 261.0            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 12     | 1379.9 | 0.338105      | 109.9            | 182.6            | 267.1            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 13     | 1395.7 | 0.468881      | 152.4            | 253.2            | 370.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 14     | 1313.6 | 0.54801       | 178.1            | 295.9            | 432.9            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 15     | 1305.2 | 0.671797      | 218.3            | 362.8            | 530.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 16     | 1361.8 | 0.714081      | 232.1            | 385.6            | 564.1            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 17     | 1437.2 | 0.696657      | 226.4            | 376.2            | 550.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 18     | 1467.7 | 0.76768       | 249.5            | 414.5            | 606.5            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 19     | 1418.4 | 0.775812      | 252.1            | 418.9            | 612.9            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 20     | 1400.1 | 0.788943      | 256.4            | 426.0            | 623.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 21     | 1320.6 | 0.783465      | 254.6            | 423.1            | 618.9            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 22     | 1225   | 0.755371      | 245.5            | 407.9            | 596.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 23     | 1089.7 | 0.631448      | 205.2            | 341.0            | 498.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 25  | 24     | 1068.2 | 0.55213       | 179.4            | 298.2            | 436.2            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 11    | 26  | 1      | 999.3  | 0.472525   | 153.6         | 255.2         | 373.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 2      | 953.7  | 0.412311   | 134.0         | 222.6         | 325.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 3      | 934.5  | 0.456792   | 148.5         | 246.7         | 360.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 4      | 914.9  | 0.400375   | 130.1         | 216.2         | 316.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 5      | 950.6  | 0.488776   | 158.9         | 263.9         | 386.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 6      | 1011.4 | 0.489764   | 159.2         | 264.5         | 386.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 7      | 1164.6 | 0.474658   | 154.3         | 256.3         | 375.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 8      | 1330.1 | 0.489738   | 159.2         | 264.5         | 386.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 9      | 1413.1 | 0.514651   | 167.3         | 277.9         | 406.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 10     | 1394.7 | 0.469825   | 152.7         | 253.7         | 371.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 11     | 1391   | 0.413612   | 134.4         | 223.4         | 326.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 12     | 1355.8 | 0.404031   | 131.3         | 218.2         | 319.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 13     | 1299.6 | 0.369617   | 120.1         | 199.6         | 292.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 14     | 1289.7 | 0.300054   | 97.5          | 162.0         | 237.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 15     | 1296.1 | 0.30416    | 98.9          | 164.2         | 240.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 16     | 1306.4 | 0.290967   | 94.6          | 157.1         | 229.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 17     | 1423.2 | 0.353707   | 115.0         | 191.0         | 279.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 18     | 1533   | 0.29841    | 97.0          | 161.1         | 235.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 19     | 1454.6 | 0.269934   | 87.7          | 145.8         | 213.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 20     | 1419.6 | 0.214443   | 69.7          | 115.8         | 169.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 21     | 1358.8 | 0.213964   | 69.5          | 115.5         | 169.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 22     | 1270.2 | 0.174319   | 56.7          | 94.1          | 137.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 23     | 1130.3 | 0.140122   | 45.5          | 75.7          | 110.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 26  | 24     | 1101.5 | 0.150965   | 49.1          | 81.5          | 119.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 1      | 1008.9 | 0.121491   | 39.5          | 65.6          | 96.0          |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 2      | 972.1  | 0.139503   | 45.3          | 75.3          | 110.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 3      | 928.4  | 0.086301   | 28.0          | 46.6          | 68.2          |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 4      | 935.1  | 0.11541    | 37.5          | 62.3          | 91.2          |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 5      | 953    | 0.096826   | 31.5          | 52.3          | 76.5          |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 6      | 1018.1 | 0.08211    | 26.7          | 44.3          | 64.9          |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 7      | 1159.2 | 0.107272   | 34.9          | 57.9          | 84.7          |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 8      | 1311.9 | 0.082127   | 26.7          | 44.3          | 64.9          |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 9      | 1404   | 0.0763     | 24.8          | 41.2          | 60.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 10     | 1383.3 | 0.067086   | 21.8          | 36.2          | 53.0          |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 11     | 1350.2 | 0.091082   | 29.6          | 49.2          | 72.0          |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 12     | 1422   | 0.095027   | 30.9          | 51.3          | 75.1          |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 13     | 1413.7 | 0.088964   | 28.9          | 48.0          | 70.3          |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 14     | 1356.3 | 0.115096   | 37.4          | 62.2          | 90.9          |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 15     | 1310.9 | 0.105352   | 34.2          | 56.9          | 83.2          |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 16     | 1312.5 | 0.140896   | 45.8          | 76.1          | 111.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 17     | 1347.9 | 0.182045   | 59.2          | 98.3          | 143.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 18     | 1406   | 0.214116   | 69.6          | 115.6         | 169.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 19     | 1337   | 0.345456   | 112.3         | 186.5         | 272.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 20     | 1278.9 | 0.521152   | 169.4         | 281.4         | 411.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 27  | 21     | 1233.8 | 0.737762   | 239.8         | 398.4         | 582.8         |                    | -                          | -                          | -                          |



| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 11    | 27  | 22     | 1102.6 | 0.76588       | 248.9            | 413.6            | 605.0            |                       | -                             | -                             | -                             |
| 2020 | 11    | 27  | 23     | 1057.6 | 0.659991      | 214.5            | 356.4            | 521.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 27  | 24     | 1042.3 | 0.68844       | 223.7            | 371.8            | 543.9            |                       | -                             | -                             | -                             |
| 2020 | 11    | 28  | 1      | 990.8  | 0.637686      | 207.2            | 344.4            | 503.8            |                       | -                             | -                             | 2.97                          |
| 2020 | 11    | 28  | 2      | 920.7  | 0.787071      | 255.8            | 425.0            | 621.8            |                       | -                             | -                             | 191.09                        |
| 2020 | 11    | 28  | 3      | 906.5  | 0.800425      | 260.1            | 432.2            | 632.3            |                       | -                             | 15.73                         | 215.84                        |
| 2020 | 11    | 28  | 4      | 890.4  | 0.833928      | 271.0            | 450.3            | 658.8            |                       | -                             | 49.92                         | 258.40                        |
| 2020 | 11    | 28  | 5      | 914.1  | 0.79335       | 257.8            | 428.4            | 626.7            |                       | -                             | 4.31                          | 202.65                        |
| 2020 | 11    | 28  | 6      | 941.4  | 0.861972      | 280.1            | 465.5            | 681.0            |                       | -                             | 14.06                         | 229.56                        |
| 2020 | 11    | 28  | 7      | 1023.8 | 0.885932      | 287.9            | 478.4            | 699.9            |                       | -                             | -                             | 166.09                        |
| 2020 | 11    | 28  | 8      | 1145.8 | 0.870616      | 283.0            | 470.1            | 687.8            |                       | -                             | -                             | 31.99                         |
| 2020 | 11    | 28  | 9      | 1227.1 | 0.901419      | 293.0            | 486.8            | 712.1            |                       | -                             | -                             | -                             |
| 2020 | 11    | 28  | 10     | 1221.4 | 0.933782      | 303.5            | 504.2            | 737.7            |                       | -                             | -                             | 6.29                          |
| 2020 | 11    | 28  | 11     | 1162.2 | 0.950799      | 309.0            | 513.4            | 751.1            |                       | -                             | -                             | 78.93                         |
| 2020 | 11    | 28  | 12     | 1168.7 | 0.941636      | 306.0            | 508.5            | 743.9            |                       | -                             | -                             | 65.19                         |
| 2020 | 11    | 28  | 13     | 1141.1 | 0.891575      | 289.8            | 481.5            | 704.3            |                       | -                             | -                             | 53.24                         |
| 2020 | 11    | 28  | 14     | 1140.6 | 0.794579      | 258.2            | 429.1            | 627.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 28  | 15     | 1129.1 | 0.896889      | 291.5            | 484.3            | 708.5            |                       | -                             | -                             | 69.44                         |
| 2020 | 11    | 28  | 16     | 1147.1 | 0.842324      | 273.8            | 454.9            | 665.4            |                       | -                             | -                             | 8.34                          |
| 2020 | 11    | 28  | 17     | 1290.1 | 0.818013      | 265.9            | 441.7            | 646.2            |                       | -                             | -                             | -                             |
| 2020 | 11    | 28  | 18     | 1401.2 | 0.794076      | 258.1            | 428.8            | 627.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 28  | 19     | 1346   | 0.789989      | 256.7            | 426.6            | 624.1            |                       | -                             | -                             | -                             |
| 2020 | 11    | 28  | 20     | 1296.8 | 0.728167      | 236.7            | 393.2            | 575.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 28  | 21     | 1263.7 | 0.683753      | 222.2            | 369.2            | 540.2            |                       | -                             | -                             | -                             |
| 2020 | 11    | 28  | 22     | 1179.7 | 0.589044      | 191.4            | 318.1            | 465.3            |                       | -                             | -                             | -                             |
| 2020 | 11    | 28  | 23     | 1111.6 | 0.557425      | 181.2            | 301.0            | 440.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 28  | 24     | 1054.5 | 0.636484      | 206.9            | 343.7            | 502.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 1      | 978.7  | 0.509369      | 165.5            | 275.1            | 402.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 2      | 939.6  | 0.346538      | 112.6            | 187.1            | 273.8            |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 3      | 918.3  | 0.177063      | 57.5             | 95.6             | 139.9            |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 4      | 918.9  | 0.265833      | 86.4             | 143.6            | 210.0            |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 5      | 934.9  | 0.085481      | 27.8             | 46.2             | 67.5             |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 6      | 974.1  | 0.017479      | 5.7              | 9.4              | 13.8             |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 7      | 1009.4 | 0.030917      | 10.0             | 16.7             | 24.4             |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 8      | 1111.5 | 0.090315      | 29.4             | 48.8             | 71.3             |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 9      | 1204.2 | 0.106172      | 34.5             | 57.3             | 83.9             |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 10     | 1195.5 | 0.180677      | 58.7             | 97.6             | 142.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 11     | 1205.4 | 0.229665      | 74.6             | 124.0            | 181.4            |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 12     | 1204.9 | 0.265796      | 86.4             | 143.5            | 210.0            |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 13     | 1120.3 | 0.211649      | 68.8             | 114.3            | 167.2            |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 14     | 1042   | 0.220488      | 71.7             | 119.1            | 174.2            |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 15     | 1048.1 | 0.319733      | 103.9            | 172.7            | 252.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 16     | 1122.3 | 0.452786      | 147.2            | 244.5            | 357.7            |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 17     | 1273.9 | 0.531155      | 172.6            | 286.8            | 419.6            |                       | -                             | -                             | -                             |
| 2020 | 11    | 29  | 18     | 1368.5 | 0.605058      | 196.6            | 326.7            | 478.0            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 11    | 29  | 19     | 1359.8 | 0.623312   | 202.6         | 336.6         | 492.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 29  | 20     | 1328.8 | 0.65703    | 213.5         | 354.8         | 519.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 29  | 21     | 1303.2 | 0.582461   | 189.3         | 314.5         | 460.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 29  | 22     | 1213.3 | 0.515903   | 167.7         | 278.6         | 407.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 29  | 23     | 1131.9 | 0.512746   | 166.6         | 276.9         | 405.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 29  | 24     | 1027.8 | 0.621401   | 202.0         | 335.6         | 490.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 1      | 979.3  | 0.616983   | 200.5         | 333.2         | 487.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 2      | 928.5  | 0.658226   | 213.9         | 355.4         | 520.0         |                    | -                          | -                          | 81.50                      |
| 2020 | 11    | 30  | 3      | 932.3  | 0.622422   | 202.3         | 336.1         | 491.7         |                    | -                          | -                          | 49.41                      |
| 2020 | 11    | 30  | 4      | 934.8  | 0.674337   | 219.2         | 364.1         | 532.7         |                    | -                          | -                          | 87.93                      |
| 2020 | 11    | 30  | 5      | 983.9  | 0.781876   | 254.1         | 422.2         | 617.7         |                    | -                          | -                          | 123.78                     |
| 2020 | 11    | 30  | 6      | 1052.3 | 0.721855   | 234.6         | 389.8         | 570.3         |                    | -                          | -                          | 7.97                       |
| 2020 | 11    | 30  | 7      | 1182.1 | 0.647153   | 210.3         | 349.5         | 511.3         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 8      | 1366.4 | 0.759249   | 246.8         | 410.0         | 599.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 9      | 1456.7 | 0.789455   | 256.6         | 426.3         | 623.7         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 10     | 1417   | 0.885401   | 287.8         | 478.1         | 699.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 11     | 1312.9 | 0.916972   | 298.0         | 495.2         | 724.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 12     | 1318.7 | 0.922827   | 299.9         | 498.3         | 729.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 13     | 1298.8 | 0.896872   | 291.5         | 484.3         | 708.5         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 14     | 1223.1 | 0.77454    | 251.7         | 418.3         | 611.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 15     | 1231.5 | 0.79771    | 259.3         | 430.8         | 630.2         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 16     | 1243.5 | 0.837481   | 272.2         | 452.2         | 661.6         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 17     | 1370.9 | 0.813843   | 264.5         | 439.5         | 642.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 18     | 1509.5 | 0.835565   | 271.6         | 451.2         | 660.1         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 19     | 1470.5 | 0.842757   | 273.9         | 455.1         | 665.8         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 20     | 1443.1 | 0.840358   | 273.1         | 453.8         | 663.9         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 21     | 1373.8 | 0.776468   | 252.4         | 419.3         | 613.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 22     | 1303.4 | 0.713965   | 232.0         | 385.5         | 564.0         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 23     | 1189.1 | 0.582747   | 189.4         | 314.7         | 460.4         |                    | -                          | -                          | -                          |
| 2020 | 11    | 30  | 24     | 1142.3 | 0.44725    | 145.4         | 241.5         | 353.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 1      | 1067.5 | 0.312254   | 101.5         | 168.6         | 246.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 2      | 1020.5 | 0.234202   | 76.1          | 126.5         | 185.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 3      | 992.5  | 0.243302   | 79.1          | 131.4         | 192.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 4      | 990.9  | 0.150739   | 49.0          | 81.4          | 119.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 5      | 1040.2 | 0.12665    | 41.2          | 68.4          | 100.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 6      | 1111.8 | 0.060144   | 19.5          | 32.5          | 47.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 7      | 1238.3 | 0.105002   | 34.1          | 56.7          | 83.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 8      | 1391   | 0.136785   | 44.5          | 73.9          | 108.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 9      | 1480.8 | 0.140578   | 45.7          | 75.9          | 111.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 10     | 1447.3 | 0.142455   | 46.3          | 76.9          | 112.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 11     | 1377.3 | 0.216813   | 70.5          | 117.1         | 171.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 12     | 1354.6 | 0.217315   | 70.6          | 117.3         | 171.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 13     | 1307.3 | 0.312139   | 101.4         | 168.6         | 246.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 14     | 1271.3 | 0.367406   | 119.4         | 198.4         | 290.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 1   | 15     | 1289   | 0.39503    | 128.4         | 213.3         | 312.1         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 12    | 1   | 16     | 1291.7 | 0.410605      | 133.4            | 221.7            | 324.4            |                       | -                             | -                             | -                             |
| 2020 | 12    | 1   | 17     | 1394   | 0.55642       | 180.8            | 300.5            | 439.6            |                       | -                             | -                             | -                             |
| 2020 | 12    | 1   | 18     | 1550.8 | 0.6227        | 202.4            | 336.3            | 491.9            |                       | -                             | -                             | -                             |
| 2020 | 12    | 1   | 19     | 1497   | 0.668684      | 217.3            | 361.1            | 528.3            |                       | -                             | -                             | -                             |
| 2020 | 12    | 1   | 20     | 1451.5 | 0.641544      | 208.5            | 346.4            | 506.8            |                       | -                             | -                             | -                             |
| 2020 | 12    | 1   | 21     | 1396.3 | 0.610904      | 198.5            | 329.9            | 482.6            |                       | -                             | -                             | -                             |
| 2020 | 12    | 1   | 22     | 1348.5 | 0.512547      | 166.6            | 276.8            | 404.9            |                       | -                             | -                             | -                             |
| 2020 | 12    | 1   | 23     | 1228.7 | 0.441607      | 143.5            | 238.5            | 348.9            |                       | -                             | -                             | -                             |
| 2020 | 12    | 1   | 24     | 1151.1 | 0.430395      | 139.9            | 232.4            | 340.0            |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 1      | 1100.2 | 0.442689      | 143.9            | 239.1            | 349.7            |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 2      | 1050.4 | 0.361696      | 117.6            | 195.3            | 285.7            |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 3      | 1012   | 0.289624      | 94.1             | 156.4            | 228.8            |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 4      | 992.6  | 0.312148      | 101.4            | 168.6            | 246.6            |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 5      | 1028.5 | 0.305949      | 99.4             | 165.2            | 241.7            |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 6      | 1113.8 | 0.259918      | 84.5             | 140.4            | 205.3            |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 7      | 1228.8 | 0.22521       | 73.2             | 121.6            | 177.9            |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 8      | 1350.8 | 0.149891      | 48.7             | 80.9             | 118.4            |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 9      | 1416.5 | 0.089567      | 29.1             | 48.4             | 70.8             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 10     | 1385.8 | 0.071434      | 23.2             | 38.6             | 56.4             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 11     | 1383.5 | 0.064258      | 20.9             | 34.7             | 50.8             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 12     | 1327.9 | 0.045115      | 14.7             | 24.4             | 35.6             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 13     | 1312.6 | 0.02509       | 8.2              | 13.5             | 19.8             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 14     | 1248.8 | 0.020279      | 6.6              | 11.0             | 16.0             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 15     | 1276.6 | 0.019602      | 6.4              | 10.6             | 15.5             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 16     | 1282.9 | 0.02113       | 6.9              | 11.4             | 16.7             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 17     | 1411   | 0.024074      | 7.8              | 13.0             | 19.0             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 18     | 1456.5 | 0.024423      | 7.9              | 13.2             | 19.3             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 19     | 1447.3 | 0.021603      | 7.0              | 11.7             | 17.1             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 20     | 1385.2 | 0.021944      | 7.1              | 11.8             | 17.3             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 21     | 1318   | 0.025977      | 8.4              | 14.0             | 20.5             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 22     | 1276.6 | 0.023557      | 7.7              | 12.7             | 18.6             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 23     | 1163.9 | 0.025197      | 8.2              | 13.6             | 19.9             |                       | -                             | -                             | -                             |
| 2020 | 12    | 2   | 24     | 1106.9 | 0.031563      | 10.3             | 17.0             | 24.9             |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 1      | 1032.3 | 0.048521      | 15.8             | 26.2             | 38.3             |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 2      | 942.3  | 0.092951      | 30.2             | 50.2             | 73.4             |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 3      | 912.5  | 0.177766      | 57.8             | 96.0             | 140.4            |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 4      | 912.6  | 0.243497      | 79.1             | 131.5            | 192.4            |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 5      | 922.6  | 0.314592      | 102.2            | 169.9            | 248.5            |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 6      | 1003.3 | 0.366648      | 119.2            | 198.0            | 289.7            |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 7      | 1088.7 | 0.327729      | 106.5            | 177.0            | 258.9            |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 8      | 1223.6 | 0.215087      | 69.9             | 116.1            | 169.9            |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 9      | 1324.8 | 0.170152      | 55.3             | 91.9             | 134.4            |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 10     | 1309.8 | 0.202902      | 65.9             | 109.6            | 160.3            |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 11     | 1294   | 0.202535      | 65.8             | 109.4            | 160.0            |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 12     | 1225.9 | 0.158155      | 51.4             | 85.4             | 124.9            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind<br>Shape | Wind [MW]<br>325 | Wind [MW]<br>540 | Wind [MW]<br>790 | Min Steam [MW]<br>490 | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|---------------|------------------|------------------|------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| 2020 | 12    | 3   | 13     | 1304.2 | 0.139697      | 45.4             | 75.4             | 110.4            |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 14     | 1290.5 | 0.118289      | 38.4             | 63.9             | 93.4             |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 15     | 1282.2 | 0.106321      | 34.6             | 57.4             | 84.0             |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 16     | 1328.8 | 0.069143      | 22.5             | 37.3             | 54.6             |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 17     | 1368.9 | 0.044342      | 14.4             | 23.9             | 35.0             |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 18     | 1494.4 | 0.044441      | 14.4             | 24.0             | 35.1             |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 19     | 1421.1 | 0.042487      | 13.8             | 22.9             | 33.6             |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 20     | 1362.5 | 0.031455      | 10.2             | 17.0             | 24.8             |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 21     | 1284.5 | 0.028865      | 9.4              | 15.6             | 22.8             |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 22     | 1226.6 | 0.017804      | 5.8              | 9.6              | 14.1             |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 23     | 1135.2 | 0.016949      | 5.5              | 9.2              | 13.4             |                       | -                             | -                             | -                             |
| 2020 | 12    | 3   | 24     | 1072.1 | 0.021946      | 7.1              | 11.9             | 17.3             |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 1      | 998.1  | 0.064333      | 20.9             | 34.7             | 50.8             |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 2      | 926.2  | 0.107421      | 34.9             | 58.0             | 84.9             |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 3      | 893    | 0.150297      | 48.8             | 81.2             | 118.7            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 4      | 878.9  | 0.20471       | 66.5             | 110.5            | 161.7            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 5      | 886.8  | 0.258416      | 84.0             | 139.5            | 204.1            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 6      | 952.3  | 0.282467      | 91.8             | 152.5            | 223.1            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 7      | 1076.3 | 0.291459      | 94.7             | 157.4            | 230.3            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 8      | 1218.8 | 0.199852      | 65.0             | 107.9            | 157.9            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 9      | 1297.7 | 0.161569      | 52.5             | 87.2             | 127.6            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 10     | 1289.5 | 0.258977      | 84.2             | 139.8            | 204.6            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 11     | 1268.8 | 0.313779      | 102.0            | 169.4            | 247.9            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 12     | 1285.6 | 0.344442      | 111.9            | 186.0            | 272.1            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 13     | 1300.7 | 0.418028      | 135.9            | 225.7            | 330.2            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 14     | 1286.3 | 0.467587      | 152.0            | 252.5            | 369.4            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 15     | 1225.2 | 0.47029       | 152.8            | 254.0            | 371.5            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 16     | 1285.6 | 0.498766      | 162.1            | 269.3            | 394.0            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 17     | 1383.9 | 0.600137      | 195.0            | 324.1            | 474.1            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 18     | 1402.6 | 0.580746      | 188.7            | 313.6            | 458.8            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 19     | 1340.9 | 0.687935      | 223.6            | 371.5            | 543.5            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 20     | 1318.5 | 0.689157      | 224.0            | 372.1            | 544.4            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 21     | 1285.4 | 0.760484      | 247.2            | 410.7            | 600.8            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 22     | 1194.7 | 0.706616      | 229.7            | 381.6            | 558.2            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 23     | 1115   | 0.727757      | 236.5            | 393.0            | 574.9            |                       | -                             | -                             | -                             |
| 2020 | 12    | 4   | 24     | 1062.3 | 0.732328      | 238.0            | 395.5            | 578.5            |                       | -                             | -                             | 6.24                          |
| 2020 | 12    | 5   | 1      | 981.1  | 0.743867      | 241.8            | 401.7            | 587.7            |                       | -                             | -                             | 96.56                         |
| 2020 | 12    | 5   | 2      | 912.4  | 0.710547      | 230.9            | 383.7            | 561.3            |                       | -                             | -                             | 138.93                        |
| 2020 | 12    | 5   | 3      | 879.6  | 0.563493      | 183.1            | 304.3            | 445.2            |                       | -                             | -                             | 55.56                         |
| 2020 | 12    | 5   | 4      | 868.4  | 0.553337      | 179.8            | 298.8            | 437.1            |                       | -                             | -                             | 58.74                         |
| 2020 | 12    | 5   | 5      | 863.2  | 0.539303      | 175.3            | 291.2            | 426.0            |                       | -                             | -                             | 52.85                         |
| 2020 | 12    | 5   | 6      | 880.6  | 0.546504      | 177.6            | 295.1            | 431.7            |                       | -                             | -                             | 41.14                         |
| 2020 | 12    | 5   | 7      | 944.4  | 0.510154      | 165.8            | 275.5            | 403.0            |                       | -                             | -                             | -                             |
| 2020 | 12    | 5   | 8      | 1025.1 | 0.429979      | 139.7            | 232.2            | 339.7            |                       | -                             | -                             | -                             |
| 2020 | 12    | 5   | 9      | 1141.6 | 0.341704      | 111.1            | 184.5            | 269.9            |                       | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 12    | 5   | 10     | 1180.9 | 0.355407   | 115.5         | 191.9         | 280.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 5   | 11     | 1194.5 | 0.330172   | 107.3         | 178.3         | 260.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 5   | 12     | 1249   | 0.303816   | 98.7          | 164.1         | 240.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 5   | 13     | 1186   | 0.354864   | 115.3         | 191.6         | 280.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 5   | 14     | 1235.3 | 0.322914   | 104.9         | 174.4         | 255.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 5   | 15     | 1205.3 | 0.33512    | 108.9         | 181.0         | 264.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 5   | 16     | 1183.3 | 0.45419    | 147.6         | 245.3         | 358.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 5   | 17     | 1308.3 | 0.434179   | 141.1         | 234.5         | 343.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 5   | 18     | 1323.9 | 0.425066   | 138.1         | 229.5         | 335.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 5   | 19     | 1297.5 | 0.474308   | 154.2         | 256.1         | 374.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 5   | 20     | 1225   | 0.393165   | 127.8         | 212.3         | 310.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 5   | 21     | 1198   | 0.410857   | 133.5         | 221.9         | 324.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 5   | 22     | 1176.4 | 0.365218   | 118.7         | 197.2         | 288.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 5   | 23     | 1088.7 | 0.397227   | 129.1         | 214.5         | 313.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 5   | 24     | 1031.7 | 0.396282   | 128.8         | 214.0         | 313.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 1      | 948.9  | 0.407247   | 132.4         | 219.9         | 321.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 2      | 883.7  | 0.400551   | 130.2         | 216.3         | 316.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 3      | 847.1  | 0.43769    | 142.2         | 236.4         | 345.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 4      | 867.2  | 0.452436   | 147.0         | 244.3         | 357.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 5      | 865.8  | 0.487379   | 158.4         | 263.2         | 385.0         |                    | -                          | -                          | 9.23                       |
| 2020 | 12    | 6   | 6      | 867.9  | 0.583906   | 189.8         | 315.3         | 461.3         |                    | -                          | -                          | 83.39                      |
| 2020 | 12    | 6   | 7      | 925.6  | 0.634598   | 206.2         | 342.7         | 501.3         |                    | -                          | -                          | 65.73                      |
| 2020 | 12    | 6   | 8      | 1022.5 | 0.624424   | 202.9         | 337.2         | 493.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 9      | 1116.4 | 0.633532   | 205.9         | 342.1         | 500.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 10     | 1156.2 | 0.614456   | 199.7         | 331.8         | 485.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 11     | 1179.1 | 0.619356   | 201.3         | 334.5         | 489.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 12     | 1145.1 | 0.590695   | 192.0         | 319.0         | 466.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 13     | 1105.3 | 0.505809   | 164.4         | 273.1         | 399.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 14     | 1100.6 | 0.501449   | 163.0         | 270.8         | 396.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 15     | 1090.3 | 0.582643   | 189.4         | 314.6         | 460.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 16     | 1151.9 | 0.578178   | 187.9         | 312.2         | 456.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 17     | 1267.5 | 0.675526   | 219.5         | 364.8         | 533.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 18     | 1408.7 | 0.59755    | 194.2         | 322.7         | 472.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 19     | 1431.3 | 0.568203   | 184.7         | 306.8         | 448.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 20     | 1462.7 | 0.518733   | 168.6         | 280.1         | 409.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 21     | 1344.3 | 0.406206   | 132.0         | 219.4         | 320.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 22     | 1293.2 | 0.217359   | 70.6          | 117.4         | 171.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 23     | 1173.6 | 0.150889   | 49.0          | 81.5          | 119.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 6   | 24     | 1058.9 | 0.119112   | 38.7          | 64.3          | 94.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 1      | 983.4  | 0.147123   | 47.8          | 79.4          | 116.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 2      | 938.9  | 0.130153   | 42.3          | 70.3          | 102.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 3      | 924.1  | 0.1097     | 35.7          | 59.2          | 86.7          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 4      | 890.3  | 0.095315   | 31.0          | 51.5          | 75.3          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 5      | 909.4  | 0.061716   | 20.1          | 33.3          | 48.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 6      | 975.6  | 0.042839   | 13.9          | 23.1          | 33.8          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 12    | 7   | 7      | 1097.3 | 0.030873   | 10.0          | 16.7          | 24.4          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 8      | 1244.9 | 0.030804   | 10.0          | 16.6          | 24.3          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 9      | 1276.1 | 0.017898   | 5.8           | 9.7           | 14.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 10     | 1249.7 | 0.017111   | 5.6           | 9.2           | 13.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 11     | 1252.4 | 0.016637   | 5.4           | 9.0           | 13.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 12     | 1286.3 | 0.041732   | 13.6          | 22.5          | 33.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 13     | 1366   | 0.138313   | 45.0          | 74.7          | 109.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 14     | 1344.6 | 0.145532   | 47.3          | 78.6          | 115.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 15     | 1310.1 | 0.086781   | 28.2          | 46.9          | 68.6          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 16     | 1374.7 | 0.047724   | 15.5          | 25.8          | 37.7          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 17     | 1463.7 | 0.068089   | 22.1          | 36.8          | 53.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 18     | 1581.8 | 0.054461   | 17.7          | 29.4          | 43.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 19     | 1603.8 | 0.048737   | 15.8          | 26.3          | 38.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 20     | 1504   | 0.087073   | 28.3          | 47.0          | 68.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 21     | 1491.3 | 0.310339   | 100.9         | 167.6         | 245.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 22     | 1413.7 | 0.173366   | 56.3          | 93.6          | 137.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 23     | 1299.9 | 0.269555   | 87.6          | 145.6         | 212.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 7   | 24     | 1251.7 | 0.286209   | 93.0          | 154.6         | 226.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 1      | 1133.3 | 0.423522   | 137.6         | 228.7         | 334.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 2      | 1038.4 | 0.624926   | 203.1         | 337.5         | 493.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 3      | 977.7  | 0.680984   | 221.3         | 367.7         | 538.0         |                    | -                          | -                          | 50.28                      |
| 2020 | 12    | 8   | 4      | 979.9  | 0.763383   | 248.1         | 412.2         | 603.1         |                    | -                          | -                          | 113.17                     |
| 2020 | 12    | 8   | 5      | 998.3  | 0.717471   | 233.2         | 387.4         | 566.8         |                    | -                          | -                          | 58.50                      |
| 2020 | 12    | 8   | 6      | 1102.7 | 0.817126   | 265.6         | 441.2         | 645.5         |                    | -                          | -                          | 32.83                      |
| 2020 | 12    | 8   | 7      | 1192.3 | 0.85742    | 278.7         | 463.0         | 677.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 8      | 1320.4 | 0.828826   | 269.4         | 447.6         | 654.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 9      | 1427.9 | 0.751469   | 244.2         | 405.8         | 593.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 10     | 1441.2 | 0.608929   | 197.9         | 328.8         | 481.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 11     | 1429.5 | 0.641469   | 208.5         | 346.4         | 506.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 12     | 1417.7 | 0.658059   | 213.9         | 355.4         | 519.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 13     | 1418.3 | 0.745068   | 242.1         | 402.3         | 588.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 14     | 1391.7 | 0.827771   | 269.0         | 447.0         | 653.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 15     | 1366.4 | 0.836369   | 271.8         | 451.6         | 660.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 16     | 1380.2 | 0.836796   | 272.0         | 451.9         | 661.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 17     | 1471.8 | 0.864331   | 280.9         | 466.7         | 682.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 18     | 1581.9 | 0.868572   | 282.3         | 469.0         | 686.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 19     | 1588.2 | 0.82236    | 267.3         | 444.1         | 649.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 20     | 1539.7 | 0.791423   | 257.2         | 427.4         | 625.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 21     | 1480   | 0.850834   | 276.5         | 459.5         | 672.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 22     | 1427.2 | 0.771997   | 250.9         | 416.9         | 609.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 23     | 1312.7 | 0.69155    | 224.8         | 373.4         | 546.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 8   | 24     | 1259.5 | 0.605972   | 196.9         | 327.2         | 478.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 1      | 1155.7 | 0.497753   | 161.8         | 268.8         | 393.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 2      | 1049.4 | 0.429068   | 139.4         | 231.7         | 339.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 3      | 1037.5 | 0.378142   | 122.9         | 204.2         | 298.7         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 12    | 9   | 4      | 1041   | 0.330013   | 107.3         | 178.2         | 260.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 5      | 1049.5 | 0.366827   | 119.2         | 198.1         | 289.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 6      | 1134.5 | 0.425185   | 138.2         | 229.6         | 335.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 7      | 1273.7 | 0.396709   | 128.9         | 214.2         | 313.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 8      | 1408.5 | 0.390309   | 126.9         | 210.8         | 308.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 9      | 1495.9 | 0.27331    | 88.8          | 147.6         | 215.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 10     | 1498.1 | 0.24549    | 79.8          | 132.6         | 193.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 11     | 1482.4 | 0.245525   | 79.8          | 132.6         | 194.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 12     | 1436   | 0.287511   | 93.4          | 155.3         | 227.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 13     | 1389.7 | 0.286161   | 93.0          | 154.5         | 226.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 14     | 1387.1 | 0.27465    | 89.3          | 148.3         | 217.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 15     | 1439.3 | 0.253489   | 82.4          | 136.9         | 200.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 16     | 1421.5 | 0.303625   | 98.7          | 164.0         | 239.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 17     | 1527.9 | 0.42439    | 137.9         | 229.2         | 335.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 18     | 1641.3 | 0.51581    | 167.6         | 278.5         | 407.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 19     | 1592.4 | 0.615414   | 200.0         | 332.3         | 486.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 20     | 1532.3 | 0.674755   | 219.3         | 364.4         | 533.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 21     | 1529.8 | 0.684424   | 222.4         | 369.6         | 540.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 22     | 1467.5 | 0.643734   | 209.2         | 347.6         | 508.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 23     | 1393.1 | 0.751405   | 244.2         | 405.8         | 593.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 9   | 24     | 1344.1 | 0.815332   | 265.0         | 440.3         | 644.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 1      | 1229.8 | 0.843472   | 274.1         | 455.5         | 666.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 2      | 1141.6 | 0.851212   | 276.6         | 459.7         | 672.5         |                    | -                          | -                          | 20.86                      |
| 2020 | 12    | 10  | 3      | 1138.9 | 0.850658   | 276.5         | 459.4         | 672.0         |                    | -                          | -                          | 23.12                      |
| 2020 | 12    | 10  | 4      | 1120.7 | 0.766113   | 249.0         | 413.7         | 605.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 5      | 1120.6 | 0.686234   | 223.0         | 370.6         | 542.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 6      | 1215.4 | 0.613276   | 199.3         | 331.2         | 484.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 7      | 1346.2 | 0.602063   | 195.7         | 325.1         | 475.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 8      | 1478.3 | 0.52923    | 172.0         | 285.8         | 418.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 9      | 1603.8 | 0.524455   | 170.4         | 283.2         | 414.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 10     | 1562.1 | 0.601977   | 195.6         | 325.1         | 475.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 11     | 1521.1 | 0.459884   | 149.5         | 248.3         | 363.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 12     | 1487.1 | 0.400848   | 130.3         | 216.5         | 316.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 13     | 1490.6 | 0.418082   | 135.9         | 225.8         | 330.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 14     | 1433.9 | 0.318139   | 103.4         | 171.8         | 251.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 15     | 1395.5 | 0.250687   | 81.5          | 135.4         | 198.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 16     | 1435.3 | 0.256153   | 83.2          | 138.3         | 202.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 17     | 1549.1 | 0.335453   | 109.0         | 181.1         | 265.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 18     | 1687.1 | 0.359466   | 116.8         | 194.1         | 284.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 19     | 1618.8 | 0.534404   | 173.7         | 288.6         | 422.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 20     | 1582.4 | 0.644872   | 209.6         | 348.2         | 509.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 21     | 1584.7 | 0.592575   | 192.6         | 320.0         | 468.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 22     | 1546.1 | 0.609217   | 198.0         | 329.0         | 481.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 23     | 1467.3 | 0.563715   | 183.2         | 304.4         | 445.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 10  | 24     | 1385.8 | 0.47944    | 155.8         | 258.9         | 378.8         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 12    | 11  | 1      | 1383.5 | 0.662129   | 215.2         | 357.5         | 523.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 2      | 1314.9 | 0.663506   | 215.6         | 358.3         | 524.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 3      | 1274.5 | 0.64789    | 210.6         | 349.9         | 511.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 4      | 1275.8 | 0.638584   | 207.5         | 344.8         | 504.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 5      | 1282.5 | 0.546909   | 177.7         | 295.3         | 432.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 6      | 1361.2 | 0.549046   | 178.4         | 296.5         | 433.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 7      | 1525.8 | 0.586969   | 190.8         | 317.0         | 463.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 8      | 1669.5 | 0.537433   | 174.7         | 290.2         | 424.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 9      | 1760.9 | 0.540266   | 175.6         | 291.7         | 426.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 10     | 1713.5 | 0.41763    | 135.7         | 225.5         | 329.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 11     | 1629.8 | 0.513473   | 166.9         | 277.3         | 405.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 12     | 1629.2 | 0.503231   | 163.6         | 271.7         | 397.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 13     | 1578.1 | 0.476255   | 154.8         | 257.2         | 376.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 14     | 1563.4 | 0.40883    | 132.9         | 220.8         | 323.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 15     | 1540   | 0.353827   | 115.0         | 191.1         | 279.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 16     | 1593.8 | 0.339715   | 110.4         | 183.4         | 268.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 17     | 1667.4 | 0.250682   | 81.5          | 135.4         | 198.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 18     | 1835.6 | 0.305734   | 99.4          | 165.1         | 241.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 19     | 1773   | 0.226429   | 73.6          | 122.3         | 178.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 20     | 1737.6 | 0.19513    | 63.4          | 105.4         | 154.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 21     | 1700.4 | 0.193128   | 62.8          | 104.3         | 152.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 22     | 1647.8 | 0.211193   | 68.6          | 114.0         | 166.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 23     | 1525.4 | 0.262079   | 85.2          | 141.5         | 207.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 11  | 24     | 1483.5 | 0.318868   | 103.6         | 172.2         | 251.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 1      | 1373   | 0.387767   | 126.0         | 209.4         | 306.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 2      | 1268.8 | 0.442982   | 144.0         | 239.2         | 350.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 3      | 1162.6 | 0.442476   | 143.8         | 238.9         | 349.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 4      | 1148.8 | 0.520765   | 169.2         | 281.2         | 411.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 5      | 1174.7 | 0.446238   | 145.0         | 241.0         | 352.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 6      | 1204.1 | 0.578669   | 188.1         | 312.5         | 457.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 7      | 1255.4 | 0.721558   | 234.5         | 389.6         | 570.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 8      | 1371.6 | 0.70581    | 229.4         | 381.1         | 557.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 9      | 1470   | 0.662037   | 215.2         | 357.5         | 523.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 10     | 1556   | 0.571291   | 185.7         | 308.5         | 451.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 11     | 1571   | 0.582277   | 189.2         | 314.4         | 460.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 12     | 1564.4 | 0.55499    | 180.4         | 299.7         | 438.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 13     | 1549.6 | 0.467354   | 151.9         | 252.4         | 369.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 14     | 1522.2 | 0.387987   | 126.1         | 209.5         | 306.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 15     | 1461.6 | 0.411535   | 133.7         | 222.2         | 325.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 16     | 1485.6 | 0.457292   | 148.6         | 246.9         | 361.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 17     | 1596.8 | 0.460875   | 149.8         | 248.9         | 364.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 18     | 1712   | 0.393203   | 127.8         | 212.3         | 310.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 19     | 1647.1 | 0.354009   | 115.1         | 191.2         | 279.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 20     | 1595   | 0.274661   | 89.3          | 148.3         | 217.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 21     | 1493.1 | 0.182454   | 59.3          | 98.5          | 144.1         |                    | -                          | -                          | -                          |



| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 12    | 12  | 22     | 1427   | 0.104464   | 34.0          | 56.4          | 82.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 23     | 1363.5 | 0.04852    | 15.8          | 26.2          | 38.3          |                    | -                          | -                          | -                          |
| 2020 | 12    | 12  | 24     | 1257.8 | 0.069769   | 22.7          | 37.7          | 55.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 1      | 1176   | 0.092659   | 30.1          | 50.0          | 73.2          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 2      | 1105.5 | 0.097212   | 31.6          | 52.5          | 76.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 3      | 1050.5 | 0.122924   | 40.0          | 66.4          | 97.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 4      | 1065.3 | 0.109817   | 35.7          | 59.3          | 86.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 5      | 1073.9 | 0.120983   | 39.3          | 65.3          | 95.6          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 6      | 1125.6 | 0.054258   | 17.6          | 29.3          | 42.9          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 7      | 1191.4 | 0.04918    | 16.0          | 26.6          | 38.9          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 8      | 1229.3 | 0.064239   | 20.9          | 34.7          | 50.7          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 9      | 1340.2 | 0.052367   | 17.0          | 28.3          | 41.4          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 10     | 1391.8 | 0.060878   | 19.8          | 32.9          | 48.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 11     | 1376.7 | 0.084816   | 27.6          | 45.8          | 67.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 12     | 1326   | 0.091623   | 29.8          | 49.5          | 72.4          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 13     | 1226.4 | 0.123267   | 40.1          | 66.6          | 97.4          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 14     | 1214.5 | 0.096907   | 31.5          | 52.3          | 76.6          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 15     | 1221.1 | 0.084237   | 27.4          | 45.5          | 66.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 16     | 1224.3 | 0.10222    | 33.2          | 55.2          | 80.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 17     | 1356.5 | 0.158929   | 51.7          | 85.8          | 125.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 18     | 1489.9 | 0.243229   | 79.0          | 131.3         | 192.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 19     | 1490   | 0.203489   | 66.1          | 109.9         | 160.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 20     | 1547.6 | 0.256169   | 83.3          | 138.3         | 202.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 21     | 1440.7 | 0.275572   | 89.6          | 148.8         | 217.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 22     | 1357.2 | 0.273432   | 88.9          | 147.7         | 216.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 23     | 1274.8 | 0.292283   | 95.0          | 157.8         | 230.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 13  | 24     | 1158.3 | 0.380705   | 123.7         | 205.6         | 300.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 1      | 1043.2 | 0.611987   | 198.9         | 330.5         | 483.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 2      | 1003   | 0.676151   | 219.7         | 365.1         | 534.2         |                    | -                          | -                          | 21.16                      |
| 2020 | 12    | 14  | 3      | 959.5  | 0.648772   | 210.9         | 350.3         | 512.5         |                    | -                          | -                          | 43.03                      |
| 2020 | 12    | 14  | 4      | 941.9  | 0.633218   | 205.8         | 341.9         | 500.2         |                    | -                          | -                          | 48.34                      |
| 2020 | 12    | 14  | 5      | 953.1  | 0.561353   | 182.4         | 303.1         | 443.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 6      | 1030.9 | 0.463462   | 150.6         | 250.3         | 366.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 7      | 1149.2 | 0.366385   | 119.1         | 197.8         | 289.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 8      | 1274.9 | 0.337203   | 109.6         | 182.1         | 266.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 9      | 1375.5 | 0.333071   | 108.2         | 179.9         | 263.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 10     | 1382.8 | 0.394865   | 128.3         | 213.2         | 311.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 11     | 1369.3 | 0.47029    | 152.8         | 254.0         | 371.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 12     | 1344.1 | 0.409327   | 133.0         | 221.0         | 323.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 13     | 1363.3 | 0.298723   | 97.1          | 161.3         | 236.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 14     | 1319.4 | 0.239704   | 77.9          | 129.4         | 189.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 15     | 1289.9 | 0.230001   | 74.8          | 124.2         | 181.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 16     | 1337.1 | 0.158668   | 51.6          | 85.7          | 125.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 17     | 1396.3 | 0.135775   | 44.1          | 73.3          | 107.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 18     | 1466.6 | 0.098054   | 31.9          | 52.9          | 77.5          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 12    | 14  | 19     | 1400.2 | 0.046681   | 15.2          | 25.2          | 36.9          |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 20     | 1350.9 | 0.037586   | 12.2          | 20.3          | 29.7          |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 21     | 1286.4 | 0.019355   | 6.3           | 10.5          | 15.3          |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 22     | 1185.2 | 0.013688   | 4.4           | 7.4           | 10.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 23     | 1090.2 | 0.01832    | 6.0           | 9.9           | 14.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 14  | 24     | 957.6  | 0.015589   | 5.1           | 8.4           | 12.3          |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 1      | 842.3  | 0.017096   | 5.6           | 9.2           | 13.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 2      | 770.1  | 0.018704   | 6.1           | 10.1          | 14.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 3      | 715.2  | 0.034572   | 11.2          | 18.7          | 27.3          |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 4      | 714.5  | 0.036432   | 11.8          | 19.7          | 28.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 5      | 727.9  | 0.052501   | 17.1          | 28.4          | 41.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 6      | 781.3  | 0.133174   | 43.3          | 71.9          | 105.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 7      | 890.1  | 0.143107   | 46.5          | 77.3          | 113.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 8      | 1018.6 | 0.137797   | 44.8          | 74.4          | 108.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 9      | 1121.1 | 0.297177   | 96.6          | 160.5         | 234.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 10     | 1196.2 | 0.425072   | 138.1         | 229.5         | 335.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 11     | 1202.7 | 0.57867    | 188.1         | 312.5         | 457.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 12     | 1161.4 | 0.682027   | 221.7         | 368.3         | 538.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 13     | 1168.5 | 0.705137   | 229.2         | 380.8         | 557.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 14     | 1128.8 | 0.709885   | 230.7         | 383.3         | 560.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 15     | 1159.9 | 0.809705   | 263.2         | 437.2         | 639.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 16     | 1156.2 | 0.843898   | 274.3         | 455.7         | 666.7         |                    | -                          | -                          | 0.48                       |
| 2020 | 12    | 15  | 17     | 1289.6 | 0.884901   | 287.6         | 477.8         | 699.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 18     | 1421.7 | 0.910414   | 295.9         | 491.6         | 719.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 19     | 1348.5 | 0.93667    | 304.4         | 505.8         | 740.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 20     | 1293.5 | 0.919127   | 298.7         | 496.3         | 726.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 21     | 1272.3 | 0.924597   | 300.5         | 499.3         | 730.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 15  | 22     | 1208.2 | 0.935754   | 304.1         | 505.3         | 739.2         |                    | -                          | -                          | 21.05                      |
| 2020 | 12    | 15  | 23     | 1097.4 | 0.951972   | 309.4         | 514.1         | 752.1         |                    | -                          | -                          | 144.66                     |
| 2020 | 12    | 15  | 24     | 1065.7 | 0.961047   | 312.3         | 519.0         | 759.2         |                    | -                          | -                          | 183.53                     |
| 2020 | 12    | 16  | 1      | 962.9  | 0.946803   | 307.7         | 511.3         | 748.0         |                    | -                          | 38.37                      | 275.07                     |
| 2020 | 12    | 16  | 2      | 892.8  | 0.946951   | 307.8         | 511.4         | 748.1         |                    | -                          | 108.55                     | 345.29                     |
| 2020 | 12    | 16  | 3      | 853.5  | 0.964339   | 313.4         | 520.7         | 761.8         |                    | -                          | 157.24                     | 398.33                     |
| 2020 | 12    | 16  | 4      | 845.5  | 0.917652   | 298.2         | 495.5         | 724.9         |                    | -                          | 140.03                     | 369.45                     |
| 2020 | 12    | 16  | 5      | 907.8  | 0.797606   | 259.2         | 430.7         | 630.1         |                    | -                          | 12.91                      | 212.31                     |
| 2020 | 12    | 16  | 6      | 953.3  | 0.707287   | 229.9         | 381.9         | 558.8         |                    | -                          | -                          | 95.46                      |
| 2020 | 12    | 16  | 7      | 1062.6 | 0.678406   | 220.5         | 366.3         | 535.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 8      | 1197.7 | 0.634289   | 206.1         | 342.5         | 501.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 9      | 1342.6 | 0.620014   | 201.5         | 334.8         | 489.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 10     | 1307.5 | 0.638156   | 207.4         | 344.6         | 504.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 11     | 1274.5 | 0.667395   | 216.9         | 360.4         | 527.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 12     | 1294.7 | 0.753201   | 244.8         | 406.7         | 595.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 13     | 1260.2 | 0.700337   | 227.6         | 378.2         | 553.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 14     | 1262.8 | 0.731455   | 237.7         | 395.0         | 577.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 15     | 1256.7 | 0.870787   | 283.0         | 470.2         | 687.9         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 12    | 16  | 16     | 1318.9 | 0.901541   | 293.0         | 486.8         | 712.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 17     | 1423.5 | 0.926084   | 301.0         | 500.1         | 731.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 18     | 1556.6 | 0.949558   | 308.6         | 512.8         | 750.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 19     | 1486.9 | 0.909637   | 295.6         | 491.2         | 718.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 20     | 1500.2 | 0.880227   | 286.1         | 475.3         | 695.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 21     | 1429.4 | 0.785855   | 255.4         | 424.4         | 620.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 22     | 1368.8 | 0.804965   | 261.6         | 434.7         | 635.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 23     | 1278   | 0.745112   | 242.2         | 402.4         | 588.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 16  | 24     | 1213.8 | 0.606803   | 197.2         | 327.7         | 479.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 1      | 1112.1 | 0.438538   | 142.5         | 236.8         | 346.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 2      | 1029.3 | 0.393446   | 127.9         | 212.5         | 310.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 3      | 964.9  | 0.326916   | 106.2         | 176.5         | 258.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 4      | 975    | 0.205906   | 66.9          | 111.2         | 162.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 5      | 1008.3 | 0.246926   | 80.3          | 133.3         | 195.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 6      | 1069.7 | 0.158486   | 51.5          | 85.6          | 125.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 7      | 1195.1 | 0.133423   | 43.4          | 72.0          | 105.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 8      | 1327.1 | 0.069743   | 22.7          | 37.7          | 55.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 9      | 1469.6 | 0.051572   | 16.8          | 27.8          | 40.7          |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 10     | 1472.2 | 0.044128   | 14.3          | 23.8          | 34.9          |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 11     | 1398.2 | 0.04272    | 13.9          | 23.1          | 33.7          |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 12     | 1381.4 | 0.063175   | 20.5          | 34.1          | 49.9          |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 13     | 1406.2 | 0.086999   | 28.3          | 47.0          | 68.7          |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 14     | 1364.6 | 0.073278   | 23.8          | 39.6          | 57.9          |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 15     | 1335.9 | 0.082716   | 26.9          | 44.7          | 65.3          |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 16     | 1374.3 | 0.093477   | 30.4          | 50.5          | 73.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 17     | 1475.7 | 0.087749   | 28.5          | 47.4          | 69.3          |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 18     | 1597.4 | 0.137458   | 44.7          | 74.2          | 108.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 19     | 1597.3 | 0.161771   | 52.6          | 87.4          | 127.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 20     | 1534.3 | 0.163392   | 53.1          | 88.2          | 129.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 21     | 1469.7 | 0.202752   | 65.9          | 109.5         | 160.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 22     | 1449   | 0.218012   | 70.9          | 117.7         | 172.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 23     | 1332.2 | 0.212387   | 69.0          | 114.7         | 167.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 17  | 24     | 1295.2 | 0.232966   | 75.7          | 125.8         | 184.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 1      | 1193.4 | 0.233072   | 75.7          | 125.9         | 184.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 2      | 1129.5 | 0.220999   | 71.8          | 119.3         | 174.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 3      | 1096.4 | 0.150766   | 49.0          | 81.4          | 119.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 4      | 1101.9 | 0.170379   | 55.4          | 92.0          | 134.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 5      | 1094.2 | 0.234287   | 76.1          | 126.5         | 185.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 6      | 1187.7 | 0.257617   | 83.7          | 139.1         | 203.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 7      | 1303.9 | 0.259236   | 84.3          | 140.0         | 204.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 8      | 1450.5 | 0.244517   | 79.5          | 132.0         | 193.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 9      | 1546.6 | 0.245146   | 79.7          | 132.4         | 193.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 10     | 1594   | 0.256227   | 83.3          | 138.4         | 202.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 11     | 1535.8 | 0.303704   | 98.7          | 164.0         | 239.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 12     | 1527.3 | 0.22748    | 73.9          | 122.8         | 179.7         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 12    | 18  | 13     | 1567.3 | 0.259286   | 84.3          | 140.0         | 204.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 14     | 1506.2 | 0.259681   | 84.4          | 140.2         | 205.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 15     | 1514.1 | 0.418487   | 136.0         | 226.0         | 330.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 16     | 1522.5 | 0.510529   | 165.9         | 275.7         | 403.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 17     | 1588.2 | 0.487184   | 158.3         | 263.1         | 384.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 18     | 1696.6 | 0.427892   | 139.1         | 231.1         | 338.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 19     | 1603.5 | 0.376457   | 122.3         | 203.3         | 297.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 20     | 1595.1 | 0.389833   | 126.7         | 210.5         | 308.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 21     | 1539.8 | 0.356979   | 116.0         | 192.8         | 282.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 22     | 1486.4 | 0.343883   | 111.8         | 185.7         | 271.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 23     | 1377.9 | 0.290682   | 94.5          | 157.0         | 229.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 18  | 24     | 1356.1 | 0.311409   | 101.2         | 168.2         | 246.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 1      | 1291.4 | 0.217395   | 70.7          | 117.4         | 171.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 2      | 1168.1 | 0.217007   | 70.5          | 117.2         | 171.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 3      | 1091.2 | 0.212805   | 69.2          | 114.9         | 168.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 4      | 1088.5 | 0.310653   | 101.0         | 167.8         | 245.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 5      | 1087.4 | 0.297774   | 96.8          | 160.8         | 235.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 6      | 1105.5 | 0.300794   | 97.8          | 162.4         | 237.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 7      | 1179.5 | 0.181709   | 59.1          | 98.1          | 143.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 8      | 1289.7 | 0.13148    | 42.7          | 71.0          | 103.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 9      | 1345.6 | 0.07921    | 25.7          | 42.8          | 62.6          |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 10     | 1431.3 | 0.068948   | 22.4          | 37.2          | 54.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 11     | 1497.2 | 0.051732   | 16.8          | 27.9          | 40.9          |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 12     | 1427.3 | 0.073657   | 23.9          | 39.8          | 58.2          |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 13     | 1334.2 | 0.098725   | 32.1          | 53.3          | 78.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 14     | 1269.4 | 0.158681   | 51.6          | 85.7          | 125.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 15     | 1274.9 | 0.266745   | 86.7          | 144.0         | 210.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 16     | 1262   | 0.469645   | 152.6         | 253.6         | 371.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 17     | 1352.5 | 0.58615    | 190.5         | 316.5         | 463.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 18     | 1509.6 | 0.659401   | 214.3         | 356.1         | 520.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 19     | 1606   | 0.665283   | 216.2         | 359.3         | 525.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 20     | 1550.9 | 0.692257   | 225.0         | 373.8         | 546.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 21     | 1478.4 | 0.732718   | 238.1         | 395.7         | 578.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 22     | 1443.4 | 0.686036   | 223.0         | 370.5         | 542.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 23     | 1376.8 | 0.731719   | 237.8         | 395.1         | 578.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 19  | 24     | 1260.8 | 0.737041   | 239.5         | 398.0         | 582.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 20  | 1      | 1173.5 | 0.669234   | 217.5         | 361.4         | 528.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 20  | 2      | 1146   | 0.506193   | 164.5         | 273.3         | 399.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 20  | 3      | 1114.5 | 0.551801   | 179.3         | 298.0         | 435.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 20  | 4      | 1094.3 | 0.506932   | 164.8         | 273.7         | 400.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 20  | 5      | 1110.4 | 0.567481   | 184.4         | 306.4         | 448.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 20  | 6      | 1151   | 0.714771   | 232.3         | 386.0         | 564.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 20  | 7      | 1183.7 | 0.648988   | 210.9         | 350.5         | 512.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 20  | 8      | 1302.4 | 0.785561   | 255.3         | 424.2         | 620.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 20  | 9      | 1393.4 | 0.823119   | 267.5         | 444.5         | 650.3         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind     | Wind [MW] | Wind [MW] | Wind [MW] | Min Steam [MW] | Curtailment<br>at 325 MW wind | Curtailment<br>at 550 MW wind | Curtailment<br>at 790 MW wind |
|------|-------|-----|--------|--------|----------|-----------|-----------|-----------|----------------|-------------------------------|-------------------------------|-------------------------------|
|      |       |     |        |        | Shape    | 325       | 540       | 790       |                |                               |                               |                               |
| 2020 | 12    | 20  | 10     | 1402.3 | 0.734982 | 238.9     | 396.9     | 580.6     |                | -                             | -                             | -                             |
| 2020 | 12    | 20  | 11     | 1408.5 | 0.870122 | 282.8     | 469.9     | 687.4     |                | -                             | -                             | -                             |
| 2020 | 12    | 20  | 12     | 1359.8 | 0.821844 | 267.1     | 443.8     | 649.3     |                | -                             | -                             | -                             |
| 2020 | 12    | 20  | 13     | 1294.5 | 0.857617 | 278.7     | 463.1     | 677.5     |                | -                             | -                             | -                             |
| 2020 | 12    | 20  | 14     | 1295.1 | 0.874263 | 284.1     | 472.1     | 690.7     |                | -                             | -                             | -                             |
| 2020 | 12    | 20  | 15     | 1261   | 0.809321 | 263.0     | 437.0     | 639.4     |                | -                             | -                             | -                             |
| 2020 | 12    | 20  | 16     | 1295.6 | 0.763303 | 248.1     | 412.2     | 603.0     |                | -                             | -                             | -                             |
| 2020 | 12    | 20  | 17     | 1414.2 | 0.856828 | 278.5     | 462.7     | 676.9     |                | -                             | -                             | -                             |
| 2020 | 12    | 20  | 18     | 1542.3 | 0.812062 | 263.9     | 438.5     | 641.5     |                | -                             | -                             | -                             |
| 2020 | 12    | 20  | 19     | 1528.3 | 0.851703 | 276.8     | 459.9     | 672.8     |                | -                             | -                             | -                             |
| 2020 | 12    | 20  | 20     | 1550.9 | 0.801658 | 260.5     | 432.9     | 633.3     |                | -                             | -                             | -                             |
| 2020 | 12    | 20  | 21     | 1482.6 | 0.798554 | 259.5     | 431.2     | 630.9     |                | -                             | -                             | -                             |
| 2020 | 12    | 20  | 22     | 1432.2 | 0.729073 | 236.9     | 393.7     | 576.0     |                | -                             | -                             | -                             |
| 2020 | 12    | 20  | 23     | 1349.2 | 0.431021 | 140.1     | 232.8     | 340.5     |                | -                             | -                             | -                             |
| 2020 | 12    | 20  | 24     | 1232.2 | 0.394963 | 128.4     | 213.3     | 312.0     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 1      | 1135.3 | 0.306136 | 99.5      | 165.3     | 241.8     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 2      | 1101.3 | 0.34994  | 113.7     | 189.0     | 276.5     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 3      | 1088.3 | 0.302938 | 98.5      | 163.6     | 239.3     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 4      | 1086.3 | 0.300243 | 97.6      | 162.1     | 237.2     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 5      | 1131.7 | 0.315316 | 102.5     | 170.3     | 249.1     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 6      | 1207.6 | 0.426722 | 138.7     | 230.4     | 337.1     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 7      | 1342.4 | 0.422767 | 137.4     | 228.3     | 334.0     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 8      | 1481.1 | 0.496747 | 161.4     | 268.2     | 392.4     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 9      | 1596.1 | 0.439611 | 142.9     | 237.4     | 347.3     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 10     | 1636.9 | 0.451875 | 146.9     | 244.0     | 357.0     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 11     | 1624.4 | 0.499732 | 162.4     | 269.9     | 394.8     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 12     | 1610.1 | 0.540763 | 175.7     | 292.0     | 427.2     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 13     | 1594.4 | 0.555529 | 180.5     | 300.0     | 438.9     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 14     | 1525.1 | 0.560713 | 182.2     | 302.8     | 443.0     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 15     | 1494.9 | 0.621808 | 202.1     | 335.8     | 491.2     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 16     | 1541.2 | 0.715725 | 232.6     | 386.5     | 565.4     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 17     | 1629.3 | 0.735392 | 239.0     | 397.1     | 581.0     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 18     | 1712   | 0.775595 | 252.1     | 418.8     | 612.7     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 19     | 1656.2 | 0.862634 | 280.4     | 465.8     | 681.5     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 20     | 1602.4 | 0.895638 | 291.1     | 483.6     | 707.6     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 21     | 1536.2 | 0.900266 | 292.6     | 486.1     | 711.2     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 22     | 1445.5 | 0.880765 | 286.2     | 475.6     | 695.8     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 23     | 1329.1 | 0.845081 | 274.7     | 456.3     | 667.6     |                | -                             | -                             | -                             |
| 2020 | 12    | 21  | 24     | 1265.6 | 0.889625 | 289.1     | 480.4     | 702.8     |                | -                             | -                             | -                             |
| 2020 | 12    | 22  | 1      | 1174.4 | 0.909117 | 295.5     | 490.9     | 718.2     |                | -                             | -                             | 33.80                         |
| 2020 | 12    | 22  | 2      | 1091.5 | 0.831998 | 270.4     | 449.3     | 657.3     |                | -                             | -                             | 55.78                         |
| 2020 | 12    | 22  | 3      | 1022.2 | 0.728682 | 236.8     | 393.5     | 575.7     |                | -                             | -                             | 43.46                         |
| 2020 | 12    | 22  | 4      | 990.8  | 0.609199 | 198.0     | 329.0     | 481.3     |                | -                             | -                             | -                             |
| 2020 | 12    | 22  | 5      | 1028.4 | 0.451479 | 146.7     | 243.8     | 356.7     |                | -                             | -                             | -                             |
| 2020 | 12    | 22  | 6      | 1089.5 | 0.38339  | 124.6     | 207.0     | 302.9     |                | -                             | -                             | -                             |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 12    | 22  | 7      | 1226.5 | 0.36202    | 117.7         | 195.5         | 286.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 8      | 1347.5 | 0.369822   | 120.2         | 199.7         | 292.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 9      | 1424.1 | 0.399488   | 129.8         | 215.7         | 315.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 10     | 1514.1 | 0.503569   | 163.7         | 271.9         | 397.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 11     | 1494.6 | 0.454852   | 147.8         | 245.6         | 359.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 12     | 1483.6 | 0.470265   | 152.8         | 253.9         | 371.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 13     | 1535.1 | 0.518324   | 168.5         | 279.9         | 409.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 14     | 1459.6 | 0.526123   | 171.0         | 284.1         | 415.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 15     | 1470.2 | 0.402348   | 130.8         | 217.3         | 317.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 16     | 1490.3 | 0.390675   | 127.0         | 211.0         | 308.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 17     | 1591.2 | 0.338674   | 110.1         | 182.9         | 267.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 18     | 1665.7 | 0.32285    | 104.9         | 174.3         | 255.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 19     | 1613.5 | 0.276      | 89.7          | 149.0         | 218.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 20     | 1523.8 | 0.24535    | 79.7          | 132.5         | 193.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 21     | 1490.5 | 0.269966   | 87.7          | 145.8         | 213.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 22     | 1392.7 | 0.280081   | 91.0          | 151.2         | 221.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 23     | 1276   | 0.162981   | 53.0          | 88.0          | 128.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 22  | 24     | 1233.2 | 0.173164   | 56.3          | 93.5          | 136.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 1      | 1108.6 | 0.068822   | 22.4          | 37.2          | 54.4          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 2      | 1050.3 | 0.056937   | 18.5          | 30.7          | 45.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 3      | 1004.9 | 0.039737   | 12.9          | 21.5          | 31.4          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 4      | 992.8  | 0.041171   | 13.4          | 22.2          | 32.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 5      | 983.4  | 0.044465   | 14.5          | 24.0          | 35.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 6      | 1058.1 | 0.055305   | 18.0          | 29.9          | 43.7          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 7      | 1191.8 | 0.026626   | 8.7           | 14.4          | 21.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 8      | 1319.3 | 0.028632   | 9.3           | 15.5          | 22.6          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 9      | 1422.2 | 0.055485   | 18.0          | 30.0          | 43.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 10     | 1429.8 | 0.076659   | 24.9          | 41.4          | 60.6          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 11     | 1407.9 | 0.069283   | 22.5          | 37.4          | 54.7          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 12     | 1396.7 | 0.056092   | 18.2          | 30.3          | 44.3          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 13     | 1424.8 | 0.065945   | 21.4          | 35.6          | 52.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 14     | 1426.2 | 0.058581   | 19.0          | 31.6          | 46.3          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 15     | 1414.2 | 0.049957   | 16.2          | 27.0          | 39.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 16     | 1448.8 | 0.065877   | 21.4          | 35.6          | 52.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 17     | 1457.2 | 0.107126   | 34.8          | 57.8          | 84.6          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 18     | 1521.8 | 0.100104   | 32.5          | 54.1          | 79.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 19     | 1465.2 | 0.092381   | 30.0          | 49.9          | 73.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 20     | 1443.5 | 0.081081   | 26.4          | 43.8          | 64.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 21     | 1399.9 | 0.080587   | 26.2          | 43.5          | 63.7          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 22     | 1340.2 | 0.098841   | 32.1          | 53.4          | 78.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 23     | 1228.6 | 0.099451   | 32.3          | 53.7          | 78.6          |                    | -                          | -                          | -                          |
| 2020 | 12    | 23  | 24     | 1195.7 | 0.213326   | 69.3          | 115.2         | 168.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 1      | 1083   | 0.430941   | 140.1         | 232.7         | 340.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 2      | 984.1  | 0.43832    | 142.5         | 236.7         | 346.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 3      | 952.1  | 0.501457   | 163.0         | 270.8         | 396.2         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 12    | 24  | 4      | 928.9  | 0.438584   | 142.5         | 236.8         | 346.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 5      | 933.6  | 0.366238   | 119.0         | 197.8         | 289.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 6      | 1010.7 | 0.37152    | 120.7         | 200.6         | 293.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 7      | 1149.7 | 0.441071   | 143.3         | 238.2         | 348.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 8      | 1273.8 | 0.408615   | 132.8         | 220.7         | 322.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 9      | 1392.2 | 0.42856    | 139.3         | 231.4         | 338.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 10     | 1479.9 | 0.417258   | 135.6         | 225.3         | 329.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 11     | 1412.2 | 0.408192   | 132.7         | 220.4         | 322.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 12     | 1364   | 0.434188   | 141.1         | 234.5         | 343.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 13     | 1403.6 | 0.417681   | 135.7         | 225.5         | 330.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 14     | 1431.9 | 0.423161   | 137.5         | 228.5         | 334.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 15     | 1410.2 | 0.401147   | 130.4         | 216.6         | 316.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 16     | 1382   | 0.348609   | 113.3         | 188.2         | 275.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 17     | 1450.3 | 0.347509   | 112.9         | 187.7         | 274.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 18     | 1543.9 | 0.381203   | 123.9         | 205.8         | 301.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 19     | 1504.6 | 0.375613   | 122.1         | 202.8         | 296.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 20     | 1489.4 | 0.297315   | 96.6          | 160.6         | 234.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 21     | 1469.6 | 0.338841   | 110.1         | 183.0         | 267.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 22     | 1396.7 | 0.273188   | 88.8          | 147.5         | 215.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 23     | 1311.7 | 0.219216   | 71.2          | 118.4         | 173.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 24  | 24     | 1223.7 | 0.168822   | 54.9          | 91.2          | 133.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 1      | 1109.1 | 0.152227   | 49.5          | 82.2          | 120.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 2      | 1025.4 | 0.193024   | 62.7          | 104.2         | 152.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 3      | 958.7  | 0.15005    | 48.8          | 81.0          | 118.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 4      | 936.7  | 0.097323   | 31.6          | 52.6          | 76.9          |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 5      | 973.5  | 0.08083    | 26.3          | 43.6          | 63.9          |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 6      | 1026.2 | 0.084862   | 27.6          | 45.8          | 67.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 7      | 1147.1 | 0.059152   | 19.2          | 31.9          | 46.7          |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 8      | 1240.7 | 0.032256   | 10.5          | 17.4          | 25.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 9      | 1358.5 | 0.034748   | 11.3          | 18.8          | 27.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 10     | 1448.3 | 0.031764   | 10.3          | 17.2          | 25.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 11     | 1445.5 | 0.021326   | 6.9           | 11.5          | 16.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 12     | 1435.6 | 0.025909   | 8.4           | 14.0          | 20.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 13     | 1437.6 | 0.032306   | 10.5          | 17.4          | 25.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 14     | 1383.6 | 0.045514   | 14.8          | 24.6          | 36.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 15     | 1358.3 | 0.07317    | 23.8          | 39.5          | 57.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 16     | 1370.7 | 0.115225   | 37.4          | 62.2          | 91.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 17     | 1440.2 | 0.224424   | 72.9          | 121.2         | 177.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 18     | 1489   | 0.295857   | 96.2          | 159.8         | 233.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 19     | 1424.5 | 0.430357   | 139.9         | 232.4         | 340.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 20     | 1366.9 | 0.439575   | 142.9         | 237.4         | 347.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 21     | 1351   | 0.546604   | 177.6         | 295.2         | 431.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 22     | 1372.1 | 0.552673   | 179.6         | 298.4         | 436.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 23     | 1317.4 | 0.568251   | 184.7         | 306.9         | 448.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 25  | 24     | 1268.8 | 0.597714   | 194.3         | 322.8         | 472.2         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 12    | 26  | 1      | 1149.1 | 0.584656   | 190.0         | 315.7         | 461.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 2      | 1057.6 | 0.585716   | 190.4         | 316.3         | 462.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 3      | 1007   | 0.637798   | 207.3         | 344.4         | 503.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 4      | 1010.9 | 0.621501   | 202.0         | 335.6         | 491.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 5      | 1026.2 | 0.592248   | 192.5         | 319.8         | 467.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 6      | 1054.7 | 0.531128   | 172.6         | 286.8         | 419.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 7      | 1140.6 | 0.511241   | 166.2         | 276.1         | 403.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 8      | 1244.6 | 0.372001   | 120.9         | 200.9         | 293.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 9      | 1366.8 | 0.395      | 128.4         | 213.3         | 312.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 10     | 1397.4 | 0.339679   | 110.4         | 183.4         | 268.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 11     | 1398.2 | 0.369517   | 120.1         | 199.5         | 291.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 12     | 1416.5 | 0.363902   | 118.3         | 196.5         | 287.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 13     | 1360.2 | 0.289125   | 94.0          | 156.1         | 228.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 14     | 1347   | 0.235108   | 76.4          | 127.0         | 185.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 15     | 1283.8 | 0.179018   | 58.2          | 96.7          | 141.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 16     | 1318.7 | 0.135726   | 44.1          | 73.3          | 107.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 17     | 1332.9 | 0.246796   | 80.2          | 133.3         | 195.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 18     | 1350   | 0.238582   | 77.5          | 128.8         | 188.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 19     | 1365.6 | 0.248601   | 80.8          | 134.2         | 196.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 20     | 1384.9 | 0.249996   | 81.2          | 135.0         | 197.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 21     | 1344.1 | 0.177646   | 57.7          | 95.9          | 140.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 22     | 1304.4 | 0.110369   | 35.9          | 59.6          | 87.2          |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 23     | 1204.1 | 0.074412   | 24.2          | 40.2          | 58.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 26  | 24     | 1121.3 | 0.054318   | 17.7          | 29.3          | 42.9          |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 1      | 1022.3 | 0.04815    | 15.6          | 26.0          | 38.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 2      | 1016.1 | 0.042151   | 13.7          | 22.8          | 33.3          |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 3      | 989.3  | 0.043782   | 14.2          | 23.6          | 34.6          |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 4      | 968.2  | 0.061869   | 20.1          | 33.4          | 48.9          |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 5      | 983    | 0.09498    | 30.9          | 51.3          | 75.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 6      | 1015.1 | 0.182075   | 59.2          | 98.3          | 143.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 7      | 1050.1 | 0.280739   | 91.2          | 151.6         | 221.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 8      | 1080.2 | 0.34607    | 112.5         | 186.9         | 273.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 9      | 1157.5 | 0.391595   | 127.3         | 211.5         | 309.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 10     | 1236.5 | 0.425669   | 138.3         | 229.9         | 336.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 11     | 1258.4 | 0.453782   | 147.5         | 245.0         | 358.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 12     | 1252   | 0.577023   | 187.5         | 311.6         | 455.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 13     | 1246.8 | 0.465818   | 151.4         | 251.5         | 368.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 14     | 1259.4 | 0.423584   | 137.7         | 228.7         | 334.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 15     | 1293.6 | 0.50709    | 164.8         | 273.8         | 400.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 16     | 1273.1 | 0.551315   | 179.2         | 297.7         | 435.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 17     | 1403.5 | 0.595958   | 193.7         | 321.8         | 470.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 18     | 1393.1 | 0.666212   | 216.5         | 359.8         | 526.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 19     | 1385.3 | 0.65647    | 213.4         | 354.5         | 518.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 20     | 1382.7 | 0.750672   | 244.0         | 405.4         | 593.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 21     | 1320.6 | 0.781068   | 253.8         | 421.8         | 617.0         |                    | -                          | -                          | -                          |



| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 12    | 27  | 22     | 1295.6 | 0.742977   | 241.5         | 401.2         | 587.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 23     | 1193.8 | 0.756541   | 245.9         | 408.5         | 597.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 27  | 24     | 1082.7 | 0.771686   | 250.8         | 416.7         | 609.6         |                    | -                          | -                          | 16.93                      |
| 2020 | 12    | 28  | 1      | 1028.6 | 0.802317   | 260.8         | 433.3         | 633.8         |                    | -                          | -                          | 95.23                      |
| 2020 | 12    | 28  | 2      | 963.4  | 0.798294   | 259.4         | 431.1         | 630.7         |                    | -                          | -                          | 157.25                     |
| 2020 | 12    | 28  | 3      | 954.7  | 0.810835   | 263.5         | 437.9         | 640.6         |                    | -                          | -                          | 175.86                     |
| 2020 | 12    | 28  | 4      | 940.7  | 0.706946   | 229.8         | 381.8         | 558.5         |                    | -                          | -                          | 107.79                     |
| 2020 | 12    | 28  | 5      | 966.8  | 0.819294   | 266.3         | 442.4         | 647.2         |                    | -                          | -                          | 170.44                     |
| 2020 | 12    | 28  | 6      | 993.9  | 0.80969    | 263.1         | 437.2         | 639.7         |                    | -                          | -                          | 135.76                     |
| 2020 | 12    | 28  | 7      | 1042.1 | 0.857028   | 278.5         | 462.8         | 677.1         |                    | -                          | -                          | 124.95                     |
| 2020 | 12    | 28  | 8      | 1085.7 | 0.874476   | 284.2         | 472.2         | 690.8         |                    | -                          | -                          | 95.14                      |
| 2020 | 12    | 28  | 9      | 1154.1 | 0.88536    | 287.7         | 478.1         | 699.4         |                    | -                          | -                          | 35.33                      |
| 2020 | 12    | 28  | 10     | 1274.7 | 0.907789   | 295.0         | 490.2         | 717.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 28  | 11     | 1296.6 | 0.909148   | 295.5         | 490.9         | 718.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 28  | 12     | 1347.7 | 0.913609   | 296.9         | 493.3         | 721.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 28  | 13     | 1302.2 | 0.89497    | 290.9         | 483.3         | 707.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 28  | 14     | 1237.5 | 0.837826   | 272.3         | 452.4         | 661.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 28  | 15     | 1195.9 | 0.813293   | 264.3         | 439.2         | 642.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 28  | 16     | 1172   | 0.843713   | 274.2         | 455.6         | 666.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 28  | 17     | 1235.9 | 0.81047    | 263.4         | 437.7         | 640.3         |                    | -                          | -                          | -                          |
| 2020 | 12    | 28  | 18     | 1364.3 | 0.830655   | 270.0         | 448.6         | 656.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 28  | 19     | 1340.3 | 0.713837   | 232.0         | 385.5         | 563.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 28  | 20     | 1342.5 | 0.707048   | 229.8         | 381.8         | 558.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 28  | 21     | 1286.8 | 0.582363   | 189.3         | 314.5         | 460.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 28  | 22     | 1202.6 | 0.785891   | 255.4         | 424.4         | 620.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 28  | 23     | 1143.9 | 0.844263   | 274.4         | 455.9         | 667.0         |                    | -                          | -                          | 13.07                      |
| 2020 | 12    | 28  | 24     | 1070.3 | 0.897685   | 291.7         | 484.7         | 709.2         |                    | -                          | -                          | 128.87                     |
| 2020 | 12    | 29  | 1      | 989.6  | 0.902923   | 293.5         | 487.6         | 713.3         |                    | -                          | -                          | 213.71                     |
| 2020 | 12    | 29  | 2      | 954.3  | 0.86952    | 282.6         | 469.5         | 686.9         |                    | -                          | 5.24                       | 222.62                     |
| 2020 | 12    | 29  | 3      | 948    | 0.875083   | 284.4         | 472.5         | 691.3         |                    | -                          | 14.54                      | 233.32                     |
| 2020 | 12    | 29  | 4      | 949.7  | 0.835885   | 271.7         | 451.4         | 660.3         |                    | -                          | -                          | 200.65                     |
| 2020 | 12    | 29  | 5      | 982.4  | 0.920278   | 299.1         | 497.0         | 727.0         |                    | -                          | 4.55                       | 234.62                     |
| 2020 | 12    | 29  | 6      | 1056.9 | 0.878849   | 285.6         | 474.6         | 694.3         |                    | -                          | -                          | 127.39                     |
| 2020 | 12    | 29  | 7      | 1137.2 | 0.872445   | 283.5         | 471.1         | 689.2         |                    | -                          | -                          | 42.03                      |
| 2020 | 12    | 29  | 8      | 1232   | 0.93874    | 305.1         | 506.9         | 741.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 9      | 1359.8 | 0.923814   | 300.2         | 498.9         | 729.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 10     | 1444.4 | 0.922152   | 299.7         | 498.0         | 728.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 11     | 1414.2 | 0.926878   | 301.2         | 500.5         | 732.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 12     | 1434.9 | 0.92468    | 300.5         | 499.3         | 730.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 13     | 1466.8 | 0.91975    | 298.9         | 496.7         | 726.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 14     | 1472.7 | 0.939261   | 305.3         | 507.2         | 742.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 15     | 1485.7 | 0.939436   | 305.3         | 507.3         | 742.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 16     | 1467.9 | 0.952911   | 309.7         | 514.6         | 752.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 17     | 1558.4 | 0.94712    | 307.8         | 511.4         | 748.2         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 18     | 1683.4 | 0.935312   | 304.0         | 505.1         | 738.9         |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 12    | 29  | 19     | 1631.6 | 0.904667   | 294.0         | 488.5         | 714.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 20     | 1592   | 0.902534   | 293.3         | 487.4         | 713.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 21     | 1570.8 | 0.921489   | 299.5         | 497.6         | 728.0         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 22     | 1461.2 | 0.918237   | 298.4         | 495.8         | 725.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 23     | 1355.4 | 0.911316   | 296.2         | 492.1         | 719.9         |                    | -                          | -                          | -                          |
| 2020 | 12    | 29  | 24     | 1238   | 0.912017   | 296.4         | 492.5         | 720.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 1      | 1163.9 | 0.910846   | 296.0         | 491.9         | 719.6         |                    | -                          | -                          | 45.67                      |
| 2020 | 12    | 30  | 2      | 1137   | 0.925373   | 300.7         | 499.7         | 731.0         |                    | -                          | -                          | 84.04                      |
| 2020 | 12    | 30  | 3      | 1113.3 | 0.907678   | 295.0         | 490.1         | 717.1         |                    | -                          | -                          | 93.77                      |
| 2020 | 12    | 30  | 4      | 1097.7 | 0.89504    | 290.9         | 483.3         | 707.1         |                    | -                          | -                          | 99.38                      |
| 2020 | 12    | 30  | 5      | 1113.8 | 0.85259    | 277.1         | 460.4         | 673.5         |                    | -                          | -                          | 49.75                      |
| 2020 | 12    | 30  | 6      | 1197.7 | 0.812008   | 263.9         | 438.5         | 641.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 7      | 1305.8 | 0.761284   | 247.4         | 411.1         | 601.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 8      | 1405.4 | 0.748281   | 243.2         | 404.1         | 591.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 9      | 1488   | 0.672687   | 218.6         | 363.3         | 531.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 10     | 1557.8 | 0.504866   | 164.1         | 272.6         | 398.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 11     | 1519   | 0.433415   | 140.9         | 234.0         | 342.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 12     | 1534.1 | 0.306429   | 99.6          | 165.5         | 242.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 13     | 1546.4 | 0.250191   | 81.3          | 135.1         | 197.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 14     | 1536.6 | 0.183177   | 59.5          | 98.9          | 144.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 15     | 1449.9 | 0.116663   | 37.9          | 63.0          | 92.2          |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 16     | 1481.3 | 0.06136    | 19.9          | 33.1          | 48.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 17     | 1485.7 | 0.042561   | 13.8          | 23.0          | 33.6          |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 18     | 1619.1 | 0.043856   | 14.3          | 23.7          | 34.6          |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 19     | 1568.7 | 0.0343     | 11.1          | 18.5          | 27.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 20     | 1529.5 | 0.023961   | 7.8           | 12.9          | 18.9          |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 21     | 1549.7 | 0.02889    | 9.4           | 15.6          | 22.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 22     | 1479.7 | 0.045667   | 14.8          | 24.7          | 36.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 23     | 1393.4 | 0.062305   | 20.2          | 33.6          | 49.2          |                    | -                          | -                          | -                          |
| 2020 | 12    | 30  | 24     | 1330.9 | 0.054404   | 17.7          | 29.4          | 43.0          |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 1      | 1220.5 | 0.910846   | 296.0         | 491.9         | 719.6         |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 2      | 1158.4 | 0.925373   | 300.7         | 499.7         | 731.0         |                    | -                          | -                          | 62.64                      |
| 2020 | 12    | 31  | 3      | 1136.1 | 0.907678   | 295.0         | 490.1         | 717.1         |                    | -                          | -                          | 70.97                      |
| 2020 | 12    | 31  | 4      | 1149.3 | 0.89504    | 290.9         | 483.3         | 707.1         |                    | -                          | -                          | 47.78                      |
| 2020 | 12    | 31  | 5      | 1176.5 | 0.85259    | 277.1         | 460.4         | 673.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 6      | 1222   | 0.812008   | 263.9         | 438.5         | 641.5         |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 7      | 1350.5 | 0.761284   | 247.4         | 411.1         | 601.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 8      | 1407   | 0.748281   | 243.2         | 404.1         | 591.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 9      | 1515.4 | 0.672687   | 218.6         | 363.3         | 531.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 10     | 1498.1 | 0.504866   | 164.1         | 272.6         | 398.8         |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 11     | 1441.4 | 0.433415   | 140.9         | 234.0         | 342.4         |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 12     | 1399.1 | 0.306429   | 99.6          | 165.5         | 242.1         |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 13     | 1388.3 | 0.250191   | 81.3          | 135.1         | 197.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 14     | 1331.2 | 0.183177   | 59.5          | 98.9          | 144.7         |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 15     | 1317.3 | 0.116663   | 37.9          | 63.0          | 92.2          |                    | -                          | -                          | -                          |

| Year | Month | Day | Period | Load   | Wind Shape | Wind [MW] 325 | Wind [MW] 540 | Wind [MW] 790 | Min Steam [MW] 490 | Curtailment at 325 MW wind | Curtailment at 550 MW wind | Curtailment at 790 MW wind |
|------|-------|-----|--------|--------|------------|---------------|---------------|---------------|--------------------|----------------------------|----------------------------|----------------------------|
| 2020 | 12    | 31  | 16     | 1350.1 | 0.06136    | 19.9          | 33.1          | 48.5          |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 17     | 1478.6 | 0.042561   | 13.8          | 23.0          | 33.6          |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 18     | 1619.2 | 0.043856   | 14.3          | 23.7          | 34.6          |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 19     | 1595.6 | 0.0343     | 11.1          | 18.5          | 27.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 20     | 1535.3 | 0.023961   | 7.8           | 12.9          | 18.9          |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 21     | 1461.6 | 0.02889    | 9.4           | 15.6          | 22.8          |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 22     | 1362.5 | 0.045667   | 14.8          | 24.7          | 36.1          |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 23     | 1329.5 | 0.062305   | 20.2          | 33.6          | 49.2          |                    | -                          | -                          | -                          |
| 2020 | 12    | 31  | 24     | 1282   | 0.054404   | 17.7          | 29.4          | 43.0          |                    | -                          | -                          | -                          |

**Year 2020 - analysis:**

|                        | Wind Generation<br>@ 540 MW                    | Curtailement<br>@ 540 MW            | Net Wind<br>@ 540 MW                                       |
|------------------------|--|-------------------------------------|--|
| 2020                   | 1735 GWh                                       | 40 GWh                              | 1696 GWh   |
| Incremental wind added | 250 MW   |                                     |  |
|                        | Generation of<br>incremental wind<br>@ 36.7 CF | Curtailement of<br>incremental wind | Net Generation of<br>incremental wind<br>with curtailement |
| 2020                   | 803 GWh  | 143 GWh                             | 660 GWh  |
|                        | CF of incremental wind<br>with curtailement =  | 30.1%                               |  |

This file has been provided in Electronic Excel spreadsheet format only.

It is available for viewing on

<http://www.nsuarb.ca>

under Matter Title ML-2013-01 Maritime Link Application (Muskrat Falls)

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1 **Request IR-3:**

2  
3 **Reference: Appendix 6.02 slide page 4 of 42, " ... uncertainty in wind forecasts ... ".**

4  
5 **(a) Please describe NSPI's current wind forecasting system. E.g., does NSP receive real-**  
6 **time output data from wind farms? For what time horizons does NSP forecast or**  
7 **receive forecast data for projected wind output levels - day-ahead, hour-ahead,**  
8 **other intervals? Does NSP receive this information for each individual wind farm?**

9  
10 **(b) Please describe the anticipated wind forecasting system that may be in place by 2015**  
11 **when roughly 500 MW of installed wind will be in place on NSPI's system. In**  
12 **particular describe any ongoing improvements or changes to the systems currently**  
13 **in place and used to project wind farm output over near-term (i.e., next day, next**  
14 **hour, or times in between) time horizons.**

15  
16 **(c) What form of wind forecasting system is projected to be in place for 2019 under the**  
17 **"indigenous wind" alternative, and if applicable how would it be different from**  
18 **what is in place now, or may be in place in 2015?**

19  
20 **Response IR-3:**

21  
22 **(a) NS Power's current wind forecasting system involves collecting information from wind**  
23 **turbine power curves, the forecasted wind speed for each wind site in Nova Scotia and**  
24 **the number of wind turbines in operation at each wind site. The information is aggregated**  
25 **into a visual basic (VB) wind forecasting tool that calculates an hourly wind forecast for**  
26 **the next 96 hours. The forecasted wind speed for each wind site is received every six**  
27 **hours, resulting in four 96-hour-ahead wind forecasts being produced on a daily basis.**  
28 **The forecasted wind speed is supplied by a subscribed weather forecasting service. The**  
29 **power curves are supplied by wind turbine original equipment manufacturers for specific**

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1 turbines and are static inputs to the wind forecasting tool. The turbine count for number  
2 of wind turbines operating is collected via phone call to the wind farm operator. The wind  
3 speed forecast and wind turbine power curve data are used to determine the turbine power  
4 output (MW). Once the model has calculated this, it multiplies by the number of turbines  
5 in operation, resulting in the hourly generation forecast for each wind farm. The model  
6 assumes that the number of turbines in operation during the hour that each forecast is  
7 created will remain the same for the following 96 hours.

8  
9 NS Power receives real-time output data from all of its wind sites and IPP wind sites and  
10 compares this data to the forecast data.

11  
12 (b-c) Please refer to CA IR-42 part d.

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1 **Request IR-4:**

2

3 **Reference: Appendix 6.02 slide page 4 of 42, " ... uncertainty in wind forecasts ... ".**

4

5 **For any and all of the wind output forecasting horizons used by NSPI operations (e.g., but**  
6 **not limited to, week-ahead, day-ahead, 12-hour ahead, 3-hour ahead, hour-ahead), please**  
7 **provide detailed forecast and actual wind power output data for NSPI's system for 2011**  
8 **and 2012, for those resources for which such data are available. Include hourly forecast**  
9 **and actual output data where available. Please include an explanation of the framework for**  
10 **interpreting these data, if or as necessary.**

11

12 **Response IR-4:**

13

14 Please refer to Attachment 1 for 2011 and 2012 day ahead wind forecast data. The corresponding  
15 actual wind generation can be found in the answer to Synapse IR-5.



## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-01-01 01:00 | 21.0 |
| 2011-01-01 02:00 | 20.0 |
| 2011-01-01 03:00 | 20.0 |
| 2011-01-01 04:00 | 19.0 |
| 2011-01-01 05:00 | 19.0 |
| 2011-01-01 06:00 | 18.0 |
| 2011-01-01 07:00 | 20.0 |
| 2011-01-01 08:00 | 23.0 |
| 2011-01-01 09:00 | 23.0 |
| 2011-01-01 10:00 | 22.0 |
| 2011-01-01 11:00 | 23.0 |
| 2011-01-01 12:00 | 24.0 |
| 2011-01-01 13:00 | 22.0 |
| 2011-01-01 14:00 | 22.0 |
| 2011-01-01 15:00 | 21.0 |
| 2011-01-01 16:00 | 22.0 |
| 2011-01-01 17:00 | 24.0 |
| 2011-01-01 18:00 | 25.0 |
| 2011-01-01 19:00 | 26.0 |
| 2011-01-01 20:00 | 28.0 |
| 2011-01-01 21:00 | 28.0 |
| 2011-01-01 22:00 | 27.0 |
| 2011-01-01 23:00 | 25.0 |
| 2011-01-02 00:00 | 24.0 |
| 2011-01-02 01:00 | 24.0 |
| 2011-01-02 02:00 | 25.0 |
| 2011-01-02 03:00 | 24.0 |
| 2011-01-02 04:00 | 23.0 |
| 2011-01-02 05:00 | 23.0 |
| 2011-01-02 06:00 | 23.0 |
| 2011-01-02 07:00 | 25.0 |
| 2011-01-02 08:00 | 26.0 |
| 2011-01-02 09:00 | 30.0 |
| 2011-01-02 10:00 | 32.0 |
| 2011-01-02 11:00 | 36.0 |
| 2011-01-02 12:00 | 39.0 |
| 2011-01-02 13:00 | 38.0 |
| 2011-01-02 14:00 | 33.0 |
| 2011-01-02 15:00 | 30.0 |
| 2011-01-02 16:00 | 25.0 |
| 2011-01-02 17:00 | 23.0 |
| 2011-01-02 18:00 | 24.0 |
| 2011-01-02 19:00 | 25.0 |
| 2011-01-02 20:00 | 27.0 |
| 2011-01-02 21:00 | 28.0 |
| 2011-01-02 22:00 | 24.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-01-02 23:00 | 21.0  |
| 2011-01-03 00:00 | 21.0  |
| 2011-01-03 01:00 | 7.0   |
| 2011-01-03 02:00 | 8.0   |
| 2011-01-03 03:00 | 10.0  |
| 2011-01-03 04:00 | 14.0  |
| 2011-01-03 05:00 | 17.0  |
| 2011-01-03 06:00 | 18.0  |
| 2011-01-03 07:00 | 19.0  |
| 2011-01-03 08:00 | 23.0  |
| 2011-01-03 09:00 | 28.0  |
| 2011-01-03 10:00 | 36.0  |
| 2011-01-03 11:00 | 44.0  |
| 2011-01-03 12:00 | 49.0  |
| 2011-01-03 13:00 | 49.0  |
| 2011-01-03 14:00 | 52.0  |
| 2011-01-03 15:00 | 67.0  |
| 2011-01-03 16:00 | 69.0  |
| 2011-01-03 17:00 | 82.0  |
| 2011-01-03 18:00 | 89.0  |
| 2011-01-03 19:00 | 94.0  |
| 2011-01-03 20:00 | 99.0  |
| 2011-01-03 21:00 | 106.0 |
| 2011-01-03 22:00 | 109.0 |
| 2011-01-03 23:00 | 114.0 |
| 2011-01-04 00:00 | 117.0 |
| 2011-01-04 01:00 | 92.0  |
| 2011-01-04 02:00 | 100.0 |
| 2011-01-04 03:00 | 106.0 |
| 2011-01-04 04:00 | 107.0 |
| 2011-01-04 05:00 | 104.0 |
| 2011-01-04 06:00 | 104.0 |
| 2011-01-04 07:00 | 104.0 |
| 2011-01-04 08:00 | 100.0 |
| 2011-01-04 09:00 | 102.0 |
| 2011-01-04 10:00 | 103.0 |
| 2011-01-04 11:00 | 112.0 |
| 2011-01-04 12:00 | 116.0 |
| 2011-01-04 13:00 | 113.0 |
| 2011-01-04 14:00 | 107.0 |
| 2011-01-04 15:00 | 102.0 |
| 2011-01-04 16:00 | 101.0 |
| 2011-01-04 17:00 | 101.0 |
| 2011-01-04 18:00 | 97.0  |
| 2011-01-04 19:00 | 95.0  |
| 2011-01-04 20:00 | 86.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-01-04 21:00 | 84.0 |
| 2011-01-04 22:00 | 76.0 |
| 2011-01-04 23:00 | 70.0 |
| 2011-01-05 00:00 | 61.0 |
| 2011-01-05 01:00 | 35.0 |
| 2011-01-05 02:00 | 27.0 |
| 2011-01-05 03:00 | 22.0 |
| 2011-01-05 04:00 | 20.0 |
| 2011-01-05 05:00 | 19.0 |
| 2011-01-05 06:00 | 16.0 |
| 2011-01-05 07:00 | 14.0 |
| 2011-01-05 08:00 | 13.0 |
| 2011-01-05 09:00 | 14.0 |
| 2011-01-05 10:00 | 13.0 |
| 2011-01-05 11:00 | 19.0 |
| 2011-01-05 12:00 | 21.0 |
| 2011-01-05 13:00 | 18.0 |
| 2011-01-05 14:00 | 15.0 |
| 2011-01-05 15:00 | 14.0 |
| 2011-01-05 16:00 | 13.0 |
| 2011-01-05 17:00 | 16.0 |
| 2011-01-05 18:00 | 16.0 |
| 2011-01-05 19:00 | 19.0 |
| 2011-01-05 20:00 | 20.0 |
| 2011-01-05 21:00 | 23.0 |
| 2011-01-05 22:00 | 22.0 |
| 2011-01-05 23:00 | 19.0 |
| 2011-01-06 00:00 | 18.0 |
| 2011-01-06 01:00 | 28.0 |
| 2011-01-06 02:00 | 26.0 |
| 2011-01-06 03:00 | 21.0 |
| 2011-01-06 04:00 | 17.0 |
| 2011-01-06 05:00 | 16.0 |
| 2011-01-06 06:00 | 14.0 |
| 2011-01-06 07:00 | 12.0 |
| 2011-01-06 08:00 | 11.0 |
| 2011-01-06 09:00 | 13.0 |
| 2011-01-06 10:00 | 13.0 |
| 2011-01-06 11:00 | 17.0 |
| 2011-01-06 12:00 | 18.0 |
| 2011-01-06 13:00 | 16.0 |
| 2011-01-06 14:00 | 11.0 |
| 2011-01-06 15:00 | 12.0 |
| 2011-01-06 16:00 | 11.0 |
| 2011-01-06 17:00 | 10.0 |
| 2011-01-06 18:00 | 11.0 |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-01-06 19:00 | 16.0 |
| 2011-01-06 20:00 | 18.0 |
| 2011-01-06 21:00 | 21.0 |
| 2011-01-06 22:00 | 20.0 |
| 2011-01-06 23:00 | 22.0 |
| 2011-01-07 00:00 | 23.0 |
| 2011-01-07 01:00 | 23.0 |
| 2011-01-07 02:00 | 26.0 |
| 2011-01-07 03:00 | 29.0 |
| 2011-01-07 04:00 | 30.0 |
| 2011-01-07 05:00 | 28.0 |
| 2011-01-07 06:00 | 28.0 |
| 2011-01-07 07:00 | 28.0 |
| 2011-01-07 08:00 | 29.0 |
| 2011-01-07 09:00 | 30.0 |
| 2011-01-07 10:00 | 32.0 |
| 2011-01-07 11:00 | 36.0 |
| 2011-01-07 12:00 | 42.0 |
| 2011-01-07 13:00 | 40.0 |
| 2011-01-07 14:00 | 38.0 |
| 2011-01-07 15:00 | 37.0 |
| 2011-01-07 16:00 | 38.0 |
| 2011-01-07 17:00 | 38.0 |
| 2011-01-07 18:00 | 39.0 |
| 2011-01-07 19:00 | 44.0 |
| 2011-01-07 20:00 | 51.0 |
| 2011-01-07 21:00 | 52.0 |
| 2011-01-07 22:00 | 61.0 |
| 2011-01-07 23:00 | 69.0 |
| 2011-01-08 00:00 | 80.0 |
| 2011-01-08 01:00 | 48.0 |
| 2011-01-08 02:00 | 41.0 |
| 2011-01-08 03:00 | 41.0 |
| 2011-01-08 04:00 | 39.0 |
| 2011-01-08 05:00 | 41.0 |
| 2011-01-08 06:00 | 39.0 |
| 2011-01-08 07:00 | 39.0 |
| 2011-01-08 08:00 | 40.0 |
| 2011-01-08 09:00 | 41.0 |
| 2011-01-08 10:00 | 38.0 |
| 2011-01-08 11:00 | 38.0 |
| 2011-01-08 12:00 | 34.0 |
| 2011-01-08 13:00 | 29.0 |
| 2011-01-08 14:00 | 24.0 |
| 2011-01-08 15:00 | 18.0 |
| 2011-01-08 16:00 | 16.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-01-08 17:00 | 17.0  |
| 2011-01-08 18:00 | 17.0  |
| 2011-01-08 19:00 | 21.0  |
| 2011-01-08 20:00 | 23.0  |
| 2011-01-08 21:00 | 23.0  |
| 2011-01-08 22:00 | 21.0  |
| 2011-01-08 23:00 | 17.0  |
| 2011-01-09 00:00 | 15.0  |
| 2011-01-09 01:00 | 25.0  |
| 2011-01-09 02:00 | 23.0  |
| 2011-01-09 03:00 | 22.0  |
| 2011-01-09 04:00 | 30.0  |
| 2011-01-09 05:00 | 29.0  |
| 2011-01-09 06:00 | 32.0  |
| 2011-01-09 07:00 | 32.0  |
| 2011-01-09 08:00 | 34.0  |
| 2011-01-09 09:00 | 36.0  |
| 2011-01-09 10:00 | 39.0  |
| 2011-01-09 11:00 | 50.0  |
| 2011-01-09 12:00 | 58.0  |
| 2011-01-09 13:00 | 62.0  |
| 2011-01-09 14:00 | 68.0  |
| 2011-01-09 15:00 | 70.0  |
| 2011-01-09 16:00 | 74.0  |
| 2011-01-09 17:00 | 82.0  |
| 2011-01-09 18:00 | 82.0  |
| 2011-01-09 19:00 | 98.0  |
| 2011-01-09 20:00 | 108.0 |
| 2011-01-09 21:00 | 113.0 |
| 2011-01-09 22:00 | 118.0 |
| 2011-01-09 23:00 | 116.0 |
| 2011-01-10 00:00 | 117.0 |
| 2011-01-10 01:00 | 122.0 |
| 2011-01-10 02:00 | 120.0 |
| 2011-01-10 03:00 | 120.0 |
| 2011-01-10 04:00 | 120.0 |
| 2011-01-10 05:00 | 120.0 |
| 2011-01-10 06:00 | 120.0 |
| 2011-01-10 07:00 | 120.0 |
| 2011-01-10 08:00 | 121.0 |
| 2011-01-10 09:00 | 122.0 |
| 2011-01-10 10:00 | 122.0 |
| 2011-01-10 11:00 | 123.0 |
| 2011-01-10 12:00 | 123.0 |
| 2011-01-10 13:00 | 122.0 |
| 2011-01-10 14:00 | 120.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-01-10 15:00 | 117.0 |
| 2011-01-10 16:00 | 118.0 |
| 2011-01-10 17:00 | 116.0 |
| 2011-01-10 18:00 | 115.0 |
| 2011-01-10 19:00 | 118.0 |
| 2011-01-10 20:00 | 125.0 |
| 2011-01-10 21:00 | 126.0 |
| 2011-01-10 22:00 | 125.0 |
| 2011-01-10 23:00 | 121.0 |
| 2011-01-11 00:00 | 120.0 |
| 2011-01-11 01:00 | 101.0 |
| 2011-01-11 02:00 | 97.0  |
| 2011-01-11 03:00 | 92.0  |
| 2011-01-11 04:00 | 90.0  |
| 2011-01-11 05:00 | 85.0  |
| 2011-01-11 06:00 | 73.0  |
| 2011-01-11 07:00 | 73.0  |
| 2011-01-11 08:00 | 72.0  |
| 2011-01-11 09:00 | 72.0  |
| 2011-01-11 10:00 | 65.0  |
| 2011-01-11 11:00 | 66.0  |
| 2011-01-11 12:00 | 67.0  |
| 2011-01-11 13:00 | 58.0  |
| 2011-01-11 14:00 | 48.0  |
| 2011-01-11 15:00 | 44.0  |
| 2011-01-11 16:00 | 43.0  |
| 2011-01-11 17:00 | 40.0  |
| 2011-01-11 18:00 | 36.0  |
| 2011-01-11 19:00 | 37.0  |
| 2011-01-11 20:00 | 36.0  |
| 2011-01-11 21:00 | 34.0  |
| 2011-01-11 22:00 | 28.0  |
| 2011-01-11 23:00 | 25.0  |
| 2011-01-12 00:00 | 20.0  |
| 2011-01-12 01:00 | 8.0   |
| 2011-01-12 02:00 | 7.0   |
| 2011-01-12 03:00 | 5.0   |
| 2011-01-12 04:00 | 5.0   |
| 2011-01-12 05:00 | 9.0   |
| 2011-01-12 06:00 | 9.0   |
| 2011-01-12 07:00 | 9.0   |
| 2011-01-12 08:00 | 16.0  |
| 2011-01-12 09:00 | 22.0  |
| 2011-01-12 10:00 | 33.0  |
| 2011-01-12 11:00 | 42.0  |
| 2011-01-12 12:00 | 54.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-01-12 13:00 | 55.0  |
| 2011-01-12 14:00 | 57.0  |
| 2011-01-12 15:00 | 57.0  |
| 2011-01-12 16:00 | 73.0  |
| 2011-01-12 17:00 | 94.0  |
| 2011-01-12 18:00 | 109.0 |
| 2011-01-12 19:00 | 122.0 |
| 2011-01-12 20:00 | 129.0 |
| 2011-01-12 21:00 | 126.0 |
| 2011-01-12 22:00 | 127.0 |
| 2011-01-12 23:00 | 125.0 |
| 2011-01-13 00:00 | 124.0 |
| 2011-01-13 01:00 | 108.0 |
| 2011-01-13 02:00 | 88.0  |
| 2011-01-13 03:00 | 75.0  |
| 2011-01-13 04:00 | 68.0  |
| 2011-01-13 05:00 | 73.0  |
| 2011-01-13 06:00 | 68.0  |
| 2011-01-13 07:00 | 74.0  |
| 2011-01-13 08:00 | 78.0  |
| 2011-01-13 09:00 | 84.0  |
| 2011-01-13 10:00 | 86.0  |
| 2011-01-13 11:00 | 96.0  |
| 2011-01-13 12:00 | 97.0  |
| 2011-01-13 13:00 | 107.0 |
| 2011-01-13 14:00 | 106.0 |
| 2011-01-13 15:00 | 110.0 |
| 2011-01-13 16:00 | 113.0 |
| 2011-01-13 17:00 | 118.0 |
| 2011-01-13 18:00 | 120.0 |
| 2011-01-13 19:00 | 119.0 |
| 2011-01-13 20:00 | 116.0 |
| 2011-01-13 21:00 | 113.0 |
| 2011-01-13 22:00 | 112.0 |
| 2011-01-13 23:00 | 106.0 |
| 2011-01-14 00:00 | 105.0 |
| 2011-01-14 01:00 | 97.0  |
| 2011-01-14 02:00 | 95.0  |
| 2011-01-14 03:00 | 90.0  |
| 2011-01-14 04:00 | 83.0  |
| 2011-01-14 05:00 | 76.0  |
| 2011-01-14 06:00 | 64.0  |
| 2011-01-14 07:00 | 57.0  |
| 2011-01-14 08:00 | 48.0  |
| 2011-01-14 09:00 | 44.0  |
| 2011-01-14 10:00 | 41.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-01-14 11:00 | 36.0 |
| 2011-01-14 12:00 | 34.0 |
| 2011-01-14 13:00 | 31.0 |
| 2011-01-14 14:00 | 29.0 |
| 2011-01-14 15:00 | 25.0 |
| 2011-01-14 16:00 | 24.0 |
| 2011-01-14 17:00 | 23.0 |
| 2011-01-14 18:00 | 23.0 |
| 2011-01-14 19:00 | 24.0 |
| 2011-01-14 20:00 | 24.0 |
| 2011-01-14 21:00 | 22.0 |
| 2011-01-14 22:00 | 20.0 |
| 2011-01-14 23:00 | 15.0 |
| 2011-01-15 00:00 | 14.0 |
| 2011-01-15 01:00 | 9.0  |
| 2011-01-15 02:00 | 8.0  |
| 2011-01-15 03:00 | 8.0  |
| 2011-01-15 04:00 | 7.0  |
| 2011-01-15 05:00 | 7.0  |
| 2011-01-15 06:00 | 5.0  |
| 2011-01-15 07:00 | 5.0  |
| 2011-01-15 08:00 | 6.0  |
| 2011-01-15 09:00 | 7.0  |
| 2011-01-15 10:00 | 10.0 |
| 2011-01-15 11:00 | 14.0 |
| 2011-01-15 12:00 | 19.0 |
| 2011-01-15 13:00 | 19.0 |
| 2011-01-15 14:00 | 25.0 |
| 2011-01-15 15:00 | 28.0 |
| 2011-01-15 16:00 | 25.0 |
| 2011-01-15 17:00 | 23.0 |
| 2011-01-15 18:00 | 19.0 |
| 2011-01-15 19:00 | 22.0 |
| 2011-01-15 20:00 | 20.0 |
| 2011-01-15 21:00 | 20.0 |
| 2011-01-15 22:00 | 22.0 |
| 2011-01-15 23:00 | 26.0 |
| 2011-01-16 00:00 | 29.0 |
| 2011-01-16 01:00 | 25.0 |
| 2011-01-16 02:00 | 36.0 |
| 2011-01-16 03:00 | 40.0 |
| 2011-01-16 04:00 | 41.0 |
| 2011-01-16 05:00 | 45.0 |
| 2011-01-16 06:00 | 45.0 |
| 2011-01-16 07:00 | 51.0 |
| 2011-01-16 08:00 | 55.0 |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-01-16 09:00 | 60.0  |
| 2011-01-16 10:00 | 74.0  |
| 2011-01-16 11:00 | 99.0  |
| 2011-01-16 12:00 | 115.0 |
| 2011-01-16 13:00 | 112.0 |
| 2011-01-16 14:00 | 106.0 |
| 2011-01-16 15:00 | 103.0 |
| 2011-01-16 16:00 | 93.0  |
| 2011-01-16 17:00 | 83.0  |
| 2011-01-16 18:00 | 80.0  |
| 2011-01-16 19:00 | 83.0  |
| 2011-01-16 20:00 | 88.0  |
| 2011-01-16 21:00 | 90.0  |
| 2011-01-16 22:00 | 92.0  |
| 2011-01-16 23:00 | 92.0  |
| 2011-01-17 00:00 | 95.0  |
| 2011-01-17 01:00 | 90.0  |
| 2011-01-17 02:00 | 93.0  |
| 2011-01-17 03:00 | 89.0  |
| 2011-01-17 04:00 | 80.0  |
| 2011-01-17 05:00 | 77.0  |
| 2011-01-17 06:00 | 68.0  |
| 2011-01-17 07:00 | 62.0  |
| 2011-01-17 08:00 | 52.0  |
| 2011-01-17 09:00 | 57.0  |
| 2011-01-17 10:00 | 53.0  |
| 2011-01-17 11:00 | 52.0  |
| 2011-01-17 12:00 | 49.0  |
| 2011-01-17 13:00 | 43.0  |
| 2011-01-17 14:00 | 41.0  |
| 2011-01-17 15:00 | 34.0  |
| 2011-01-17 16:00 | 30.0  |
| 2011-01-17 17:00 | 31.0  |
| 2011-01-17 18:00 | 21.0  |
| 2011-01-17 19:00 | 14.0  |
| 2011-01-17 20:00 | 14.0  |
| 2011-01-17 21:00 | 13.0  |
| 2011-01-17 22:00 | 18.0  |
| 2011-01-17 23:00 | 28.0  |
| 2011-01-18 00:00 | 31.0  |
| 2011-01-18 01:00 | 16.0  |
| 2011-01-18 02:00 | 13.0  |
| 2011-01-18 03:00 | 11.0  |
| 2011-01-18 04:00 | 11.0  |
| 2011-01-18 05:00 | 10.0  |
| 2011-01-18 06:00 | 11.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-01-18 07:00 | 10.0 |
| 2011-01-18 08:00 | 12.0 |
| 2011-01-18 09:00 | 14.0 |
| 2011-01-18 10:00 | 17.0 |
| 2011-01-18 11:00 | 25.0 |
| 2011-01-18 12:00 | 30.0 |
| 2011-01-18 13:00 | 32.0 |
| 2011-01-18 14:00 | 33.0 |
| 2011-01-18 15:00 | 35.0 |
| 2011-01-18 16:00 | 34.0 |
| 2011-01-18 17:00 | 33.0 |
| 2011-01-18 18:00 | 33.0 |
| 2011-01-18 19:00 | 41.0 |
| 2011-01-18 20:00 | 47.0 |
| 2011-01-18 21:00 | 53.0 |
| 2011-01-18 22:00 | 54.0 |
| 2011-01-18 23:00 | 57.0 |
| 2011-01-19 00:00 | 60.0 |
| 2011-01-19 01:00 | 45.0 |
| 2011-01-19 02:00 | 48.0 |
| 2011-01-19 03:00 | 51.0 |
| 2011-01-19 04:00 | 53.0 |
| 2011-01-19 05:00 | 53.0 |
| 2011-01-19 06:00 | 53.0 |
| 2011-01-19 07:00 | 56.0 |
| 2011-01-19 08:00 | 57.0 |
| 2011-01-19 09:00 | 55.0 |
| 2011-01-19 10:00 | 44.0 |
| 2011-01-19 11:00 | 41.0 |
| 2011-01-19 12:00 | 36.0 |
| 2011-01-19 13:00 | 46.0 |
| 2011-01-19 14:00 | 56.0 |
| 2011-01-19 15:00 | 53.0 |
| 2011-01-19 16:00 | 53.0 |
| 2011-01-19 17:00 | 57.0 |
| 2011-01-19 18:00 | 57.0 |
| 2011-01-19 19:00 | 60.0 |
| 2011-01-19 20:00 | 61.0 |
| 2011-01-19 21:00 | 61.0 |
| 2011-01-19 22:00 | 66.0 |
| 2011-01-19 23:00 | 76.0 |
| 2011-01-20 00:00 | 85.0 |
| 2011-01-20 01:00 | 57.0 |
| 2011-01-20 02:00 | 56.0 |
| 2011-01-20 03:00 | 53.0 |
| 2011-01-20 04:00 | 50.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-01-20 05:00 | 45.0  |
| 2011-01-20 06:00 | 43.0  |
| 2011-01-20 07:00 | 36.0  |
| 2011-01-20 08:00 | 33.0  |
| 2011-01-20 09:00 | 32.0  |
| 2011-01-20 10:00 | 33.0  |
| 2011-01-20 11:00 | 35.0  |
| 2011-01-20 12:00 | 36.0  |
| 2011-01-20 13:00 | 33.0  |
| 2011-01-20 14:00 | 28.0  |
| 2011-01-20 15:00 | 27.0  |
| 2011-01-20 16:00 | 28.0  |
| 2011-01-20 17:00 | 33.0  |
| 2011-01-20 18:00 | 35.0  |
| 2011-01-20 19:00 | 35.0  |
| 2011-01-20 20:00 | 37.0  |
| 2011-01-20 21:00 | 37.0  |
| 2011-01-20 22:00 | 32.0  |
| 2011-01-20 23:00 | 28.0  |
| 2011-01-21 00:00 | 23.0  |
| 2011-01-21 01:00 | 10.0  |
| 2011-01-21 02:00 | 8.0   |
| 2011-01-21 03:00 | 8.0   |
| 2011-01-21 04:00 | 7.0   |
| 2011-01-21 05:00 | 7.0   |
| 2011-01-21 06:00 | 7.0   |
| 2011-01-21 07:00 | 5.0   |
| 2011-01-21 08:00 | 8.0   |
| 2011-01-21 09:00 | 12.0  |
| 2011-01-21 10:00 | 19.0  |
| 2011-01-21 11:00 | 31.0  |
| 2011-01-21 12:00 | 44.0  |
| 2011-01-21 13:00 | 44.0  |
| 2011-01-21 14:00 | 44.0  |
| 2011-01-21 15:00 | 49.0  |
| 2011-01-21 16:00 | 52.0  |
| 2011-01-21 17:00 | 62.0  |
| 2011-01-21 18:00 | 76.0  |
| 2011-01-21 19:00 | 113.0 |
| 2011-01-21 20:00 | 120.0 |
| 2011-01-21 21:00 | 121.0 |
| 2011-01-21 22:00 | 120.0 |
| 2011-01-21 23:00 | 118.0 |
| 2011-01-22 00:00 | 117.0 |
| 2011-01-22 01:00 | 109.0 |
| 2011-01-22 02:00 | 108.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-01-22 03:00 | 108.0 |
| 2011-01-22 04:00 | 108.0 |
| 2011-01-22 05:00 | 108.0 |
| 2011-01-22 06:00 | 108.0 |
| 2011-01-22 07:00 | 108.0 |
| 2011-01-22 08:00 | 109.0 |
| 2011-01-22 09:00 | 111.0 |
| 2011-01-22 10:00 | 111.0 |
| 2011-01-22 11:00 | 114.0 |
| 2011-01-22 12:00 | 115.0 |
| 2011-01-22 13:00 | 114.0 |
| 2011-01-22 14:00 | 112.0 |
| 2011-01-22 15:00 | 111.0 |
| 2011-01-22 16:00 | 111.0 |
| 2011-01-22 17:00 | 113.0 |
| 2011-01-22 18:00 | 112.0 |
| 2011-01-22 19:00 | 109.0 |
| 2011-01-22 20:00 | 110.0 |
| 2011-01-22 21:00 | 108.0 |
| 2011-01-22 22:00 | 94.0  |
| 2011-01-22 23:00 | 83.0  |
| 2011-01-23 00:00 | 72.0  |
| 2011-01-23 01:00 | 0.0   |
| 2011-01-23 02:00 | 0.0   |
| 2011-01-23 03:00 | 0.0   |
| 2011-01-23 04:00 | 0.0   |
| 2011-01-23 05:00 | 0.0   |
| 2011-01-23 06:00 | 0.0   |
| 2011-01-23 07:00 | 0.0   |
| 2011-01-23 08:00 | 0.0   |
| 2011-01-23 09:00 | 0.0   |
| 2011-01-23 10:00 | 0.0   |
| 2011-01-23 11:00 | 0.0   |
| 2011-01-23 12:00 | 0.0   |
| 2011-01-23 13:00 | 0.0   |
| 2011-01-23 14:00 | 0.0   |
| 2011-01-23 15:00 | 0.0   |
| 2011-01-23 16:00 | 0.0   |
| 2011-01-23 17:00 | 0.0   |
| 2011-01-23 18:00 | 0.0   |
| 2011-01-23 19:00 | 0.0   |
| 2011-01-23 20:00 | 0.0   |
| 2011-01-23 21:00 | 0.0   |
| 2011-01-23 22:00 | 0.0   |
| 2011-01-23 23:00 | 0.0   |
| 2011-01-24 00:00 | 0.0   |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-01-24 01:00 | 0.0  |
| 2011-01-24 02:00 | 0.0  |
| 2011-01-24 03:00 | 0.0  |
| 2011-01-24 04:00 | 0.0  |
| 2011-01-24 05:00 | 0.0  |
| 2011-01-24 06:00 | 0.0  |
| 2011-01-24 07:00 | 0.0  |
| 2011-01-24 08:00 | 0.0  |
| 2011-01-24 09:00 | 0.0  |
| 2011-01-24 10:00 | 0.0  |
| 2011-01-24 11:00 | 0.0  |
| 2011-01-24 12:00 | 0.0  |
| 2011-01-24 13:00 | 0.0  |
| 2011-01-24 14:00 | 0.0  |
| 2011-01-24 15:00 | 0.0  |
| 2011-01-24 16:00 | 0.0  |
| 2011-01-24 17:00 | 0.0  |
| 2011-01-24 18:00 | 0.0  |
| 2011-01-24 19:00 | 0.0  |
| 2011-01-24 20:00 | 0.0  |
| 2011-01-24 21:00 | 0.0  |
| 2011-01-24 22:00 | 0.0  |
| 2011-01-24 23:00 | 0.0  |
| 2011-01-25 00:00 | 0.0  |
| 2011-01-25 01:00 | 95.0 |
| 2011-01-25 02:00 | 82.0 |
| 2011-01-25 03:00 | 73.0 |
| 2011-01-25 04:00 | 69.0 |
| 2011-01-25 05:00 | 61.0 |
| 2011-01-25 06:00 | 57.0 |
| 2011-01-25 07:00 | 49.0 |
| 2011-01-25 08:00 | 43.0 |
| 2011-01-25 09:00 | 40.0 |
| 2011-01-25 10:00 | 36.0 |
| 2011-01-25 11:00 | 37.0 |
| 2011-01-25 12:00 | 37.0 |
| 2011-01-25 13:00 | 35.0 |
| 2011-01-25 14:00 | 33.0 |
| 2011-01-25 15:00 | 32.0 |
| 2011-01-25 16:00 | 33.0 |
| 2011-01-25 17:00 | 39.0 |
| 2011-01-25 18:00 | 42.0 |
| 2011-01-25 19:00 | 46.0 |
| 2011-01-25 20:00 | 44.0 |
| 2011-01-25 21:00 | 44.0 |
| 2011-01-25 22:00 | 41.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-01-25 23:00 | 39.0  |
| 2011-01-26 00:00 | 37.0  |
| 2011-01-26 01:00 | 29.0  |
| 2011-01-26 02:00 | 21.0  |
| 2011-01-26 03:00 | 17.0  |
| 2011-01-26 04:00 | 15.0  |
| 2011-01-26 05:00 | 14.0  |
| 2011-01-26 06:00 | 12.0  |
| 2011-01-26 07:00 | 13.0  |
| 2011-01-26 08:00 | 15.0  |
| 2011-01-26 09:00 | 21.0  |
| 2011-01-26 10:00 | 18.0  |
| 2011-01-26 11:00 | 17.0  |
| 2011-01-26 12:00 | 14.0  |
| 2011-01-26 13:00 | 13.0  |
| 2011-01-26 14:00 | 11.0  |
| 2011-01-26 15:00 | 12.0  |
| 2011-01-26 16:00 | 13.0  |
| 2011-01-26 17:00 | 17.0  |
| 2011-01-26 18:00 | 18.0  |
| 2011-01-26 19:00 | 22.0  |
| 2011-01-26 20:00 | 25.0  |
| 2011-01-26 21:00 | 29.0  |
| 2011-01-26 22:00 | 29.0  |
| 2011-01-26 23:00 | 30.0  |
| 2011-01-27 00:00 | 33.0  |
| 2011-01-27 01:00 | 38.0  |
| 2011-01-27 02:00 | 46.0  |
| 2011-01-27 03:00 | 48.0  |
| 2011-01-27 04:00 | 55.0  |
| 2011-01-27 05:00 | 60.0  |
| 2011-01-27 06:00 | 67.0  |
| 2011-01-27 07:00 | 78.0  |
| 2011-01-27 08:00 | 88.0  |
| 2011-01-27 09:00 | 102.0 |
| 2011-01-27 10:00 | 109.0 |
| 2011-01-27 11:00 | 114.0 |
| 2011-01-27 12:00 | 113.0 |
| 2011-01-27 13:00 | 114.0 |
| 2011-01-27 14:00 | 112.0 |
| 2011-01-27 15:00 | 110.0 |
| 2011-01-27 16:00 | 112.0 |
| 2011-01-27 17:00 | 111.0 |
| 2011-01-27 18:00 | 103.0 |
| 2011-01-27 19:00 | 106.0 |
| 2011-01-27 20:00 | 107.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-01-27 21:00 | 108.0 |
| 2011-01-27 22:00 | 108.0 |
| 2011-01-27 23:00 | 107.0 |
| 2011-01-28 00:00 | 104.0 |
| 2011-01-28 01:00 | 97.0  |
| 2011-01-28 02:00 | 91.0  |
| 2011-01-28 03:00 | 79.0  |
| 2011-01-28 04:00 | 73.0  |
| 2011-01-28 05:00 | 59.0  |
| 2011-01-28 06:00 | 48.0  |
| 2011-01-28 07:00 | 43.0  |
| 2011-01-28 08:00 | 40.0  |
| 2011-01-28 09:00 | 40.0  |
| 2011-01-28 10:00 | 40.0  |
| 2011-01-28 11:00 | 45.0  |
| 2011-01-28 12:00 | 45.0  |
| 2011-01-28 13:00 | 37.0  |
| 2011-01-28 14:00 | 32.0  |
| 2011-01-28 15:00 | 28.0  |
| 2011-01-28 16:00 | 24.0  |
| 2011-01-28 17:00 | 20.0  |
| 2011-01-28 18:00 | 18.0  |
| 2011-01-28 19:00 | 18.0  |
| 2011-01-28 20:00 | 17.0  |
| 2011-01-28 21:00 | 18.0  |
| 2011-01-28 22:00 | 16.0  |
| 2011-01-28 23:00 | 14.0  |
| 2011-01-29 00:00 | 13.0  |
| 2011-01-29 01:00 | 5.0   |
| 2011-01-29 02:00 | 4.0   |
| 2011-01-29 03:00 | 5.0   |
| 2011-01-29 04:00 | 5.0   |
| 2011-01-29 05:00 | 5.0   |
| 2011-01-29 06:00 | 6.0   |
| 2011-01-29 07:00 | 8.0   |
| 2011-01-29 08:00 | 10.0  |
| 2011-01-29 09:00 | 15.0  |
| 2011-01-29 10:00 | 16.0  |
| 2011-01-29 11:00 | 25.0  |
| 2011-01-29 12:00 | 29.0  |
| 2011-01-29 13:00 | 31.0  |
| 2011-01-29 14:00 | 29.0  |
| 2011-01-29 15:00 | 31.0  |
| 2011-01-29 16:00 | 30.0  |
| 2011-01-29 17:00 | 32.0  |
| 2011-01-29 18:00 | 33.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-01-29 19:00 | 36.0 |
| 2011-01-29 20:00 | 36.0 |
| 2011-01-29 21:00 | 34.0 |
| 2011-01-29 22:00 | 34.0 |
| 2011-01-29 23:00 | 35.0 |
| 2011-01-30 00:00 | 34.0 |
| 2011-01-30 01:00 | 22.0 |
| 2011-01-30 02:00 | 20.0 |
| 2011-01-30 03:00 | 17.0 |
| 2011-01-30 04:00 | 17.0 |
| 2011-01-30 05:00 | 15.0 |
| 2011-01-30 06:00 | 14.0 |
| 2011-01-30 07:00 | 11.0 |
| 2011-01-30 08:00 | 11.0 |
| 2011-01-30 09:00 | 14.0 |
| 2011-01-30 10:00 | 12.0 |
| 2011-01-30 11:00 | 14.0 |
| 2011-01-30 12:00 | 14.0 |
| 2011-01-30 13:00 | 14.0 |
| 2011-01-30 14:00 | 12.0 |
| 2011-01-30 15:00 | 12.0 |
| 2011-01-30 16:00 | 12.0 |
| 2011-01-30 17:00 | 13.0 |
| 2011-01-30 18:00 | 13.0 |
| 2011-01-30 19:00 | 17.0 |
| 2011-01-30 20:00 | 19.0 |
| 2011-01-30 21:00 | 22.0 |
| 2011-01-30 22:00 | 23.0 |
| 2011-01-30 23:00 | 23.0 |
| 2011-01-31 00:00 | 25.0 |
| 2011-01-31 01:00 | 24.0 |
| 2011-01-31 02:00 | 23.0 |
| 2011-01-31 03:00 | 20.0 |
| 2011-01-31 04:00 | 25.0 |
| 2011-01-31 05:00 | 37.0 |
| 2011-01-31 06:00 | 54.0 |
| 2011-01-31 07:00 | 54.0 |
| 2011-01-31 08:00 | 55.0 |
| 2011-01-31 09:00 | 58.0 |
| 2011-01-31 10:00 | 64.0 |
| 2011-01-31 11:00 | 81.0 |
| 2011-01-31 12:00 | 87.0 |
| 2011-01-31 13:00 | 85.0 |
| 2011-01-31 14:00 | 77.0 |
| 2011-01-31 15:00 | 75.0 |
| 2011-01-31 16:00 | 73.0 |



## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-01-31 17:00 | 73.0 |
| 2011-01-31 18:00 | 68.0 |
| 2011-01-31 19:00 | 68.0 |
| 2011-01-31 20:00 | 65.0 |
| 2011-01-31 21:00 | 62.0 |
| 2011-01-31 22:00 | 60.0 |
| 2011-01-31 23:00 | 54.0 |
| 2011-02-01 00:00 | 48.0 |
| 2011-02-01 01:00 | 30.0 |
| 2011-02-01 02:00 | 26.0 |
| 2011-02-01 03:00 | 22.0 |
| 2011-02-01 04:00 | 20.0 |
| 2011-02-01 05:00 | 19.0 |
| 2011-02-01 06:00 | 19.0 |
| 2011-02-01 07:00 | 17.0 |
| 2011-02-01 08:00 | 16.0 |
| 2011-02-01 09:00 | 18.0 |
| 2011-02-01 10:00 | 19.0 |
| 2011-02-01 11:00 | 24.0 |
| 2011-02-01 12:00 | 30.0 |
| 2011-02-01 13:00 | 31.0 |
| 2011-02-01 14:00 | 31.0 |
| 2011-02-01 15:00 | 37.0 |
| 2011-02-01 16:00 | 32.0 |
| 2011-02-01 17:00 | 32.0 |
| 2011-02-01 18:00 | 30.0 |
| 2011-02-01 19:00 | 32.0 |
| 2011-02-01 20:00 | 33.0 |
| 2011-02-01 21:00 | 33.0 |
| 2011-02-01 22:00 | 25.0 |
| 2011-02-01 23:00 | 23.0 |
| 2011-02-02 00:00 | 20.0 |
| 2011-02-02 01:00 | 13.0 |
| 2011-02-02 02:00 | 13.0 |
| 2011-02-02 03:00 | 15.0 |
| 2011-02-02 04:00 | 17.0 |
| 2011-02-02 05:00 | 17.0 |
| 2011-02-02 06:00 | 22.0 |
| 2011-02-02 07:00 | 23.0 |
| 2011-02-02 08:00 | 26.0 |
| 2011-02-02 09:00 | 34.0 |
| 2011-02-02 10:00 | 36.0 |
| 2011-02-02 11:00 | 40.0 |
| 2011-02-02 12:00 | 46.0 |
| 2011-02-02 13:00 | 53.0 |
| 2011-02-02 14:00 | 56.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-02-02 15:00 | 59.0  |
| 2011-02-02 16:00 | 59.0  |
| 2011-02-02 17:00 | 61.0  |
| 2011-02-02 18:00 | 65.0  |
| 2011-02-02 19:00 | 77.0  |
| 2011-02-02 20:00 | 88.0  |
| 2011-02-02 21:00 | 104.0 |
| 2011-02-02 22:00 | 104.0 |
| 2011-02-02 23:00 | 103.0 |
| 2011-02-03 00:00 | 103.0 |
| 2011-02-03 01:00 | 88.0  |
| 2011-02-03 02:00 | 84.0  |
| 2011-02-03 03:00 | 79.0  |
| 2011-02-03 04:00 | 76.0  |
| 2011-02-03 05:00 | 82.0  |
| 2011-02-03 06:00 | 78.0  |
| 2011-02-03 07:00 | 76.0  |
| 2011-02-03 08:00 | 77.0  |
| 2011-02-03 09:00 | 81.0  |
| 2011-02-03 10:00 | 75.0  |
| 2011-02-03 11:00 | 78.0  |
| 2011-02-03 12:00 | 74.0  |
| 2011-02-03 13:00 | 67.0  |
| 2011-02-03 14:00 | 63.0  |
| 2011-02-03 15:00 | 57.0  |
| 2011-02-03 16:00 | 47.0  |
| 2011-02-03 17:00 | 45.0  |
| 2011-02-03 18:00 | 38.0  |
| 2011-02-03 19:00 | 36.0  |
| 2011-02-03 20:00 | 33.0  |
| 2011-02-03 21:00 | 32.0  |
| 2011-02-03 22:00 | 27.0  |
| 2011-02-03 23:00 | 23.0  |
| 2011-02-04 00:00 | 20.0  |
| 2011-02-04 01:00 | 6.0   |
| 2011-02-04 02:00 | 5.0   |
| 2011-02-04 03:00 | 9.0   |
| 2011-02-04 04:00 | 10.0  |
| 2011-02-04 05:00 | 16.0  |
| 2011-02-04 06:00 | 22.0  |
| 2011-02-04 07:00 | 27.0  |
| 2011-02-04 08:00 | 31.0  |
| 2011-02-04 09:00 | 37.0  |
| 2011-02-04 10:00 | 48.0  |
| 2011-02-04 11:00 | 71.0  |
| 2011-02-04 12:00 | 83.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-02-04 13:00 | 87.0 |
| 2011-02-04 14:00 | 93.0 |
| 2011-02-04 15:00 | 95.0 |
| 2011-02-04 16:00 | 88.0 |
| 2011-02-04 17:00 | 87.0 |
| 2011-02-04 18:00 | 82.0 |
| 2011-02-04 19:00 | 86.0 |
| 2011-02-04 20:00 | 88.0 |
| 2011-02-04 21:00 | 89.0 |
| 2011-02-04 22:00 | 88.0 |
| 2011-02-04 23:00 | 83.0 |
| 2011-02-05 00:00 | 76.0 |
| 2011-02-05 01:00 | 53.0 |
| 2011-02-05 02:00 | 47.0 |
| 2011-02-05 03:00 | 39.0 |
| 2011-02-05 04:00 | 35.0 |
| 2011-02-05 05:00 | 30.0 |
| 2011-02-05 06:00 | 26.0 |
| 2011-02-05 07:00 | 26.0 |
| 2011-02-05 08:00 | 29.0 |
| 2011-02-05 09:00 | 31.0 |
| 2011-02-05 10:00 | 36.0 |
| 2011-02-05 11:00 | 41.0 |
| 2011-02-05 12:00 | 43.0 |
| 2011-02-05 13:00 | 42.0 |
| 2011-02-05 14:00 | 40.0 |
| 2011-02-05 15:00 | 39.0 |
| 2011-02-05 16:00 | 39.0 |
| 2011-02-05 17:00 | 41.0 |
| 2011-02-05 18:00 | 41.0 |
| 2011-02-05 19:00 | 41.0 |
| 2011-02-05 20:00 | 45.0 |
| 2011-02-05 21:00 | 48.0 |
| 2011-02-05 22:00 | 44.0 |
| 2011-02-05 23:00 | 41.0 |
| 2011-02-06 00:00 | 39.0 |
| 2011-02-06 01:00 | 32.0 |
| 2011-02-06 02:00 | 30.0 |
| 2011-02-06 03:00 | 33.0 |
| 2011-02-06 04:00 | 42.0 |
| 2011-02-06 05:00 | 45.0 |
| 2011-02-06 06:00 | 41.0 |
| 2011-02-06 07:00 | 48.0 |
| 2011-02-06 08:00 | 57.0 |
| 2011-02-06 09:00 | 68.0 |
| 2011-02-06 10:00 | 81.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-02-06 11:00 | 90.0  |
| 2011-02-06 12:00 | 91.0  |
| 2011-02-06 13:00 | 78.0  |
| 2011-02-06 14:00 | 72.0  |
| 2011-02-06 15:00 | 64.0  |
| 2011-02-06 16:00 | 82.0  |
| 2011-02-06 17:00 | 104.0 |
| 2011-02-06 18:00 | 113.0 |
| 2011-02-06 19:00 | 117.0 |
| 2011-02-06 20:00 | 117.0 |
| 2011-02-06 21:00 | 108.0 |
| 2011-02-06 22:00 | 93.0  |
| 2011-02-06 23:00 | 83.0  |
| 2011-02-07 00:00 | 74.0  |
| 2011-02-07 01:00 | 37.0  |
| 2011-02-07 02:00 | 32.0  |
| 2011-02-07 03:00 | 28.0  |
| 2011-02-07 04:00 | 23.0  |
| 2011-02-07 05:00 | 18.0  |
| 2011-02-07 06:00 | 10.0  |
| 2011-02-07 07:00 | 10.0  |
| 2011-02-07 08:00 | 10.0  |
| 2011-02-07 09:00 | 10.0  |
| 2011-02-07 10:00 | 11.0  |
| 2011-02-07 11:00 | 16.0  |
| 2011-02-07 12:00 | 20.0  |
| 2011-02-07 13:00 | 20.0  |
| 2011-02-07 14:00 | 19.0  |
| 2011-02-07 15:00 | 17.0  |
| 2011-02-07 16:00 | 16.0  |
| 2011-02-07 17:00 | 14.0  |
| 2011-02-07 18:00 | 12.0  |
| 2011-02-07 19:00 | 16.0  |
| 2011-02-07 20:00 | 18.0  |
| 2011-02-07 21:00 | 20.0  |
| 2011-02-07 22:00 | 20.0  |
| 2011-02-07 23:00 | 19.0  |
| 2011-02-08 00:00 | 21.0  |
| 2011-02-08 01:00 | 9.0   |
| 2011-02-08 02:00 | 8.0   |
| 2011-02-08 03:00 | 8.0   |
| 2011-02-08 04:00 | 9.0   |
| 2011-02-08 05:00 | 13.0  |
| 2011-02-08 06:00 | 19.0  |
| 2011-02-08 07:00 | 16.0  |
| 2011-02-08 08:00 | 16.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-02-08 09:00 | 16.0 |
| 2011-02-08 10:00 | 16.0 |
| 2011-02-08 11:00 | 19.0 |
| 2011-02-08 12:00 | 22.0 |
| 2011-02-08 13:00 | 26.0 |
| 2011-02-08 14:00 | 35.0 |
| 2011-02-08 15:00 | 44.0 |
| 2011-02-08 16:00 | 47.0 |
| 2011-02-08 17:00 | 51.0 |
| 2011-02-08 18:00 | 52.0 |
| 2011-02-08 19:00 | 48.0 |
| 2011-02-08 20:00 | 47.0 |
| 2011-02-08 21:00 | 43.0 |
| 2011-02-08 22:00 | 41.0 |
| 2011-02-08 23:00 | 39.0 |
| 2011-02-09 00:00 | 39.0 |
| 2011-02-09 01:00 | 37.0 |
| 2011-02-09 02:00 | 38.0 |
| 2011-02-09 03:00 | 41.0 |
| 2011-02-09 04:00 | 41.0 |
| 2011-02-09 05:00 | 50.0 |
| 2011-02-09 06:00 | 69.0 |
| 2011-02-09 07:00 | 75.0 |
| 2011-02-09 08:00 | 79.0 |
| 2011-02-09 09:00 | 81.0 |
| 2011-02-09 10:00 | 73.0 |
| 2011-02-09 11:00 | 71.0 |
| 2011-02-09 12:00 | 67.0 |
| 2011-02-09 13:00 | 66.0 |
| 2011-02-09 14:00 | 62.0 |
| 2011-02-09 15:00 | 60.0 |
| 2011-02-09 16:00 | 60.0 |
| 2011-02-09 17:00 | 58.0 |
| 2011-02-09 18:00 | 59.0 |
| 2011-02-09 19:00 | 61.0 |
| 2011-02-09 20:00 | 63.0 |
| 2011-02-09 21:00 | 64.0 |
| 2011-02-09 22:00 | 63.0 |
| 2011-02-09 23:00 | 61.0 |
| 2011-02-10 00:00 | 62.0 |
| 2011-02-10 01:00 | 47.0 |
| 2011-02-10 02:00 | 44.0 |
| 2011-02-10 03:00 | 41.0 |
| 2011-02-10 04:00 | 40.0 |
| 2011-02-10 05:00 | 38.0 |
| 2011-02-10 06:00 | 32.0 |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-02-10 07:00 | 27.0 |
| 2011-02-10 08:00 | 22.0 |
| 2011-02-10 09:00 | 21.0 |
| 2011-02-10 10:00 | 18.0 |
| 2011-02-10 11:00 | 20.0 |
| 2011-02-10 12:00 | 20.0 |
| 2011-02-10 13:00 | 19.0 |
| 2011-02-10 14:00 | 17.0 |
| 2011-02-10 15:00 | 17.0 |
| 2011-02-10 16:00 | 23.0 |
| 2011-02-10 17:00 | 27.0 |
| 2011-02-10 18:00 | 36.0 |
| 2011-02-10 19:00 | 38.0 |
| 2011-02-10 20:00 | 41.0 |
| 2011-02-10 21:00 | 46.0 |
| 2011-02-10 22:00 | 44.0 |
| 2011-02-10 23:00 | 41.0 |
| 2011-02-11 00:00 | 41.0 |
| 2011-02-11 01:00 | 62.0 |
| 2011-02-11 02:00 | 56.0 |
| 2011-02-11 03:00 | 51.0 |
| 2011-02-11 04:00 | 51.0 |
| 2011-02-11 05:00 | 50.0 |
| 2011-02-11 06:00 | 48.0 |
| 2011-02-11 07:00 | 45.0 |
| 2011-02-11 08:00 | 39.0 |
| 2011-02-11 09:00 | 31.0 |
| 2011-02-11 10:00 | 41.0 |
| 2011-02-11 11:00 | 51.0 |
| 2011-02-11 12:00 | 57.0 |
| 2011-02-11 13:00 | 67.0 |
| 2011-02-11 14:00 | 74.0 |
| 2011-02-11 15:00 | 80.0 |
| 2011-02-11 16:00 | 81.0 |
| 2011-02-11 17:00 | 84.0 |
| 2011-02-11 18:00 | 87.0 |
| 2011-02-11 19:00 | 87.0 |
| 2011-02-11 20:00 | 86.0 |
| 2011-02-11 21:00 | 81.0 |
| 2011-02-11 22:00 | 71.0 |
| 2011-02-11 23:00 | 61.0 |
| 2011-02-12 00:00 | 55.0 |
| 2011-02-12 01:00 | 23.0 |
| 2011-02-12 02:00 | 15.0 |
| 2011-02-12 03:00 | 10.0 |
| 2011-02-12 04:00 | 9.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-02-12 05:00 | 8.0  |
| 2011-02-12 06:00 | 9.0  |
| 2011-02-12 07:00 | 10.0 |
| 2011-02-12 08:00 | 12.0 |
| 2011-02-12 09:00 | 19.0 |
| 2011-02-12 10:00 | 28.0 |
| 2011-02-12 11:00 | 42.0 |
| 2011-02-12 12:00 | 53.0 |
| 2011-02-12 13:00 | 60.0 |
| 2011-02-12 14:00 | 62.0 |
| 2011-02-12 15:00 | 64.0 |
| 2011-02-12 16:00 | 66.0 |
| 2011-02-12 17:00 | 73.0 |
| 2011-02-12 18:00 | 72.0 |
| 2011-02-12 19:00 | 81.0 |
| 2011-02-12 20:00 | 87.0 |
| 2011-02-12 21:00 | 91.0 |
| 2011-02-12 22:00 | 89.0 |
| 2011-02-12 23:00 | 83.0 |
| 2011-02-13 00:00 | 77.0 |
| 2011-02-13 01:00 | 44.0 |
| 2011-02-13 02:00 | 44.0 |
| 2011-02-13 03:00 | 48.0 |
| 2011-02-13 04:00 | 47.0 |
| 2011-02-13 05:00 | 48.0 |
| 2011-02-13 06:00 | 48.0 |
| 2011-02-13 07:00 | 50.0 |
| 2011-02-13 08:00 | 54.0 |
| 2011-02-13 09:00 | 55.0 |
| 2011-02-13 10:00 | 55.0 |
| 2011-02-13 11:00 | 57.0 |
| 2011-02-13 12:00 | 56.0 |
| 2011-02-13 13:00 | 55.0 |
| 2011-02-13 14:00 | 51.0 |
| 2011-02-13 15:00 | 50.0 |
| 2011-02-13 16:00 | 52.0 |
| 2011-02-13 17:00 | 54.0 |
| 2011-02-13 18:00 | 55.0 |
| 2011-02-13 19:00 | 49.0 |
| 2011-02-13 20:00 | 44.0 |
| 2011-02-13 21:00 | 35.0 |
| 2011-02-13 22:00 | 33.0 |
| 2011-02-13 23:00 | 30.0 |
| 2011-02-14 00:00 | 28.0 |
| 2011-02-14 01:00 | 44.0 |
| 2011-02-14 02:00 | 43.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-02-14 03:00 | 42.0  |
| 2011-02-14 04:00 | 41.0  |
| 2011-02-14 05:00 | 41.0  |
| 2011-02-14 06:00 | 38.0  |
| 2011-02-14 07:00 | 32.0  |
| 2011-02-14 08:00 | 28.0  |
| 2011-02-14 09:00 | 24.0  |
| 2011-02-14 10:00 | 22.0  |
| 2011-02-14 11:00 | 24.0  |
| 2011-02-14 12:00 | 27.0  |
| 2011-02-14 13:00 | 29.0  |
| 2011-02-14 14:00 | 31.0  |
| 2011-02-14 15:00 | 35.0  |
| 2011-02-14 16:00 | 46.0  |
| 2011-02-14 17:00 | 58.0  |
| 2011-02-14 18:00 | 69.0  |
| 2011-02-14 19:00 | 86.0  |
| 2011-02-14 20:00 | 98.0  |
| 2011-02-14 21:00 | 110.0 |
| 2011-02-14 22:00 | 106.0 |
| 2011-02-14 23:00 | 97.0  |
| 2011-02-15 00:00 | 96.0  |
| 2011-02-15 01:00 | 86.0  |
| 2011-02-15 02:00 | 68.0  |
| 2011-02-15 03:00 | 56.0  |
| 2011-02-15 04:00 | 49.0  |
| 2011-02-15 05:00 | 40.0  |
| 2011-02-15 06:00 | 33.0  |
| 2011-02-15 07:00 | 51.0  |
| 2011-02-15 08:00 | 68.0  |
| 2011-02-15 09:00 | 93.0  |
| 2011-02-15 10:00 | 108.0 |
| 2011-02-15 11:00 | 125.0 |
| 2011-02-15 12:00 | 132.0 |
| 2011-02-15 13:00 | 136.0 |
| 2011-02-15 14:00 | 141.0 |
| 2011-02-15 15:00 | 143.0 |
| 2011-02-15 16:00 | 144.0 |
| 2011-02-15 17:00 | 146.0 |
| 2011-02-15 18:00 | 148.0 |
| 2011-02-15 19:00 | 151.0 |
| 2011-02-15 20:00 | 153.0 |
| 2011-02-15 21:00 | 154.0 |
| 2011-02-15 22:00 | 152.0 |
| 2011-02-15 23:00 | 150.0 |
| 2011-02-16 00:00 | 148.0 |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-02-16 01:00 | 140.0 |
| 2011-02-16 02:00 | 139.0 |
| 2011-02-16 03:00 | 138.0 |
| 2011-02-16 04:00 | 138.0 |
| 2011-02-16 05:00 | 138.0 |
| 2011-02-16 06:00 | 138.0 |
| 2011-02-16 07:00 | 137.0 |
| 2011-02-16 08:00 | 136.0 |
| 2011-02-16 09:00 | 135.0 |
| 2011-02-16 10:00 | 133.0 |
| 2011-02-16 11:00 | 125.0 |
| 2011-02-16 12:00 | 121.0 |
| 2011-02-16 13:00 | 105.0 |
| 2011-02-16 14:00 | 92.0  |
| 2011-02-16 15:00 | 76.0  |
| 2011-02-16 16:00 | 67.0  |
| 2011-02-16 17:00 | 62.0  |
| 2011-02-16 18:00 | 57.0  |
| 2011-02-16 19:00 | 55.0  |
| 2011-02-16 20:00 | 54.0  |
| 2011-02-16 21:00 | 54.0  |
| 2011-02-16 22:00 | 52.0  |
| 2011-02-16 23:00 | 50.0  |
| 2011-02-17 00:00 | 49.0  |
| 2011-02-17 01:00 | 47.0  |
| 2011-02-17 02:00 | 51.0  |
| 2011-02-17 03:00 | 55.0  |
| 2011-02-17 04:00 | 54.0  |
| 2011-02-17 05:00 | 55.0  |
| 2011-02-17 06:00 | 53.0  |
| 2011-02-17 07:00 | 56.0  |
| 2011-02-17 08:00 | 63.0  |
| 2011-02-17 09:00 | 66.0  |
| 2011-02-17 10:00 | 74.0  |
| 2011-02-17 11:00 | 94.0  |
| 2011-02-17 12:00 | 104.0 |
| 2011-02-17 13:00 | 104.0 |
| 2011-02-17 14:00 | 107.0 |
| 2011-02-17 15:00 | 115.0 |
| 2011-02-17 16:00 | 103.0 |
| 2011-02-17 17:00 | 94.0  |
| 2011-02-17 18:00 | 85.0  |
| 2011-02-17 19:00 | 72.0  |
| 2011-02-17 20:00 | 60.0  |
| 2011-02-17 21:00 | 54.0  |
| 2011-02-17 22:00 | 47.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-02-17 23:00 | 39.0  |
| 2011-02-18 00:00 | 35.0  |
| 2011-02-18 01:00 | 21.0  |
| 2011-02-18 02:00 | 17.0  |
| 2011-02-18 03:00 | 16.0  |
| 2011-02-18 04:00 | 13.0  |
| 2011-02-18 05:00 | 13.0  |
| 2011-02-18 06:00 | 13.0  |
| 2011-02-18 07:00 | 13.0  |
| 2011-02-18 08:00 | 14.0  |
| 2011-02-18 09:00 | 16.0  |
| 2011-02-18 10:00 | 16.0  |
| 2011-02-18 11:00 | 20.0  |
| 2011-02-18 12:00 | 25.0  |
| 2011-02-18 13:00 | 24.0  |
| 2011-02-18 14:00 | 21.0  |
| 2011-02-18 15:00 | 19.0  |
| 2011-02-18 16:00 | 25.0  |
| 2011-02-18 17:00 | 31.0  |
| 2011-02-18 18:00 | 36.0  |
| 2011-02-18 19:00 | 38.0  |
| 2011-02-18 20:00 | 42.0  |
| 2011-02-18 21:00 | 42.0  |
| 2011-02-18 22:00 | 50.0  |
| 2011-02-18 23:00 | 56.0  |
| 2011-02-19 00:00 | 72.0  |
| 2011-02-19 01:00 | 52.0  |
| 2011-02-19 02:00 | 52.0  |
| 2011-02-19 03:00 | 48.0  |
| 2011-02-19 04:00 | 54.0  |
| 2011-02-19 05:00 | 61.0  |
| 2011-02-19 06:00 | 70.0  |
| 2011-02-19 07:00 | 74.0  |
| 2011-02-19 08:00 | 76.0  |
| 2011-02-19 09:00 | 87.0  |
| 2011-02-19 10:00 | 86.0  |
| 2011-02-19 11:00 | 86.0  |
| 2011-02-19 12:00 | 86.0  |
| 2011-02-19 13:00 | 86.0  |
| 2011-02-19 14:00 | 88.0  |
| 2011-02-19 15:00 | 93.0  |
| 2011-02-19 16:00 | 90.0  |
| 2011-02-19 17:00 | 91.0  |
| 2011-02-19 18:00 | 91.0  |
| 2011-02-19 19:00 | 99.0  |
| 2011-02-19 20:00 | 102.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-02-19 21:00 | 107.0 |
| 2011-02-19 22:00 | 109.0 |
| 2011-02-19 23:00 | 110.0 |
| 2011-02-20 00:00 | 113.0 |
| 2011-02-20 01:00 | 120.0 |
| 2011-02-20 02:00 | 122.0 |
| 2011-02-20 03:00 | 125.0 |
| 2011-02-20 04:00 | 125.0 |
| 2011-02-20 05:00 | 133.0 |
| 2011-02-20 06:00 | 134.0 |
| 2011-02-20 07:00 | 134.0 |
| 2011-02-20 08:00 | 136.0 |
| 2011-02-20 09:00 | 137.0 |
| 2011-02-20 10:00 | 138.0 |
| 2011-02-20 11:00 | 141.0 |
| 2011-02-20 12:00 | 142.0 |
| 2011-02-20 13:00 | 139.0 |
| 2011-02-20 14:00 | 129.0 |
| 2011-02-20 15:00 | 125.0 |
| 2011-02-20 16:00 | 122.0 |
| 2011-02-20 17:00 | 108.0 |
| 2011-02-20 18:00 | 105.0 |
| 2011-02-20 19:00 | 108.0 |
| 2011-02-20 20:00 | 110.0 |
| 2011-02-20 21:00 | 108.0 |
| 2011-02-20 22:00 | 101.0 |
| 2011-02-20 23:00 | 88.0  |
| 2011-02-21 00:00 | 80.0  |
| 2011-02-21 01:00 | 68.0  |
| 2011-02-21 02:00 | 58.0  |
| 2011-02-21 03:00 | 54.0  |
| 2011-02-21 04:00 | 46.0  |
| 2011-02-21 05:00 | 39.0  |
| 2011-02-21 06:00 | 35.0  |
| 2011-02-21 07:00 | 32.0  |
| 2011-02-21 08:00 | 32.0  |
| 2011-02-21 09:00 | 32.0  |
| 2011-02-21 10:00 | 32.0  |
| 2011-02-21 11:00 | 31.0  |
| 2011-02-21 12:00 | 29.0  |
| 2011-02-21 13:00 | 28.0  |
| 2011-02-21 14:00 | 24.0  |
| 2011-02-21 15:00 | 21.0  |
| 2011-02-21 16:00 | 18.0  |
| 2011-02-21 17:00 | 16.0  |
| 2011-02-21 18:00 | 16.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-02-21 19:00 | 18.0  |
| 2011-02-21 20:00 | 20.0  |
| 2011-02-21 21:00 | 19.0  |
| 2011-02-21 22:00 | 18.0  |
| 2011-02-21 23:00 | 17.0  |
| 2011-02-22 00:00 | 17.0  |
| 2011-02-22 01:00 | 54.0  |
| 2011-02-22 02:00 | 55.0  |
| 2011-02-22 03:00 | 59.0  |
| 2011-02-22 04:00 | 64.0  |
| 2011-02-22 05:00 | 67.0  |
| 2011-02-22 06:00 | 69.0  |
| 2011-02-22 07:00 | 79.0  |
| 2011-02-22 08:00 | 88.0  |
| 2011-02-22 09:00 | 106.0 |
| 2011-02-22 10:00 | 115.0 |
| 2011-02-22 11:00 | 131.0 |
| 2011-02-22 12:00 | 139.0 |
| 2011-02-22 13:00 | 139.0 |
| 2011-02-22 14:00 | 138.0 |
| 2011-02-22 15:00 | 136.0 |
| 2011-02-22 16:00 | 135.0 |
| 2011-02-22 17:00 | 136.0 |
| 2011-02-22 18:00 | 133.0 |
| 2011-02-22 19:00 | 130.0 |
| 2011-02-22 20:00 | 131.0 |
| 2011-02-22 21:00 | 130.0 |
| 2011-02-22 22:00 | 131.0 |
| 2011-02-22 23:00 | 132.0 |
| 2011-02-23 00:00 | 137.0 |
| 2011-02-23 01:00 | 123.0 |
| 2011-02-23 02:00 | 113.0 |
| 2011-02-23 03:00 | 103.0 |
| 2011-02-23 04:00 | 102.0 |
| 2011-02-23 05:00 | 101.0 |
| 2011-02-23 06:00 | 101.0 |
| 2011-02-23 07:00 | 102.0 |
| 2011-02-23 08:00 | 103.0 |
| 2011-02-23 09:00 | 106.0 |
| 2011-02-23 10:00 | 113.0 |
| 2011-02-23 11:00 | 118.0 |
| 2011-02-23 12:00 | 123.0 |
| 2011-02-23 13:00 | 124.0 |
| 2011-02-23 14:00 | 122.0 |
| 2011-02-23 15:00 | 124.0 |
| 2011-02-23 16:00 | 122.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-02-23 17:00 | 120.0 |
| 2011-02-23 18:00 | 118.0 |
| 2011-02-23 19:00 | 103.0 |
| 2011-02-23 20:00 | 97.0  |
| 2011-02-23 21:00 | 87.0  |
| 2011-02-23 22:00 | 79.0  |
| 2011-02-23 23:00 | 70.0  |
| 2011-02-24 00:00 | 63.0  |
| 2011-02-24 01:00 | 65.0  |
| 2011-02-24 02:00 | 57.0  |
| 2011-02-24 03:00 | 49.0  |
| 2011-02-24 04:00 | 41.0  |
| 2011-02-24 05:00 | 39.0  |
| 2011-02-24 06:00 | 36.0  |
| 2011-02-24 07:00 | 30.0  |
| 2011-02-24 08:00 | 26.0  |
| 2011-02-24 09:00 | 24.0  |
| 2011-02-24 10:00 | 18.0  |
| 2011-02-24 11:00 | 18.0  |
| 2011-02-24 12:00 | 18.0  |
| 2011-02-24 13:00 | 16.0  |
| 2011-02-24 14:00 | 12.0  |
| 2011-02-24 15:00 | 10.0  |
| 2011-02-24 16:00 | 11.0  |
| 2011-02-24 17:00 | 15.0  |
| 2011-02-24 18:00 | 19.0  |
| 2011-02-24 19:00 | 20.0  |
| 2011-02-24 20:00 | 21.0  |
| 2011-02-24 21:00 | 23.0  |
| 2011-02-24 22:00 | 29.0  |
| 2011-02-24 23:00 | 30.0  |
| 2011-02-25 00:00 | 40.0  |
| 2011-02-25 01:00 | 70.0  |
| 2011-02-25 02:00 | 72.0  |
| 2011-02-25 03:00 | 78.0  |
| 2011-02-25 04:00 | 84.0  |
| 2011-02-25 05:00 | 83.0  |
| 2011-02-25 06:00 | 84.0  |
| 2011-02-25 07:00 | 84.0  |
| 2011-02-25 08:00 | 79.0  |
| 2011-02-25 09:00 | 75.0  |
| 2011-02-25 10:00 | 68.0  |
| 2011-02-25 11:00 | 64.0  |
| 2011-02-25 12:00 | 57.0  |
| 2011-02-25 13:00 | 58.0  |
| 2011-02-25 14:00 | 58.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-02-25 15:00 | 58.0  |
| 2011-02-25 16:00 | 65.0  |
| 2011-02-25 17:00 | 74.0  |
| 2011-02-25 18:00 | 82.0  |
| 2011-02-25 19:00 | 130.0 |
| 2011-02-25 20:00 | 150.0 |
| 2011-02-25 21:00 | 151.0 |
| 2011-02-25 22:00 | 153.0 |
| 2011-02-25 23:00 | 151.0 |
| 2011-02-26 00:00 | 150.0 |
| 2011-02-26 01:00 | 102.0 |
| 2011-02-26 02:00 | 96.0  |
| 2011-02-26 03:00 | 94.0  |
| 2011-02-26 04:00 | 123.0 |
| 2011-02-26 05:00 | 139.0 |
| 2011-02-26 06:00 | 140.0 |
| 2011-02-26 07:00 | 141.0 |
| 2011-02-26 08:00 | 142.0 |
| 2011-02-26 09:00 | 144.0 |
| 2011-02-26 10:00 | 144.0 |
| 2011-02-26 11:00 | 146.0 |
| 2011-02-26 12:00 | 147.0 |
| 2011-02-26 13:00 | 146.0 |
| 2011-02-26 14:00 | 143.0 |
| 2011-02-26 15:00 | 142.0 |
| 2011-02-26 16:00 | 140.0 |
| 2011-02-26 17:00 | 140.0 |
| 2011-02-26 18:00 | 137.0 |
| 2011-02-26 19:00 | 131.0 |
| 2011-02-26 20:00 | 124.0 |
| 2011-02-26 21:00 | 117.0 |
| 2011-02-26 22:00 | 111.0 |
| 2011-02-26 23:00 | 101.0 |
| 2011-02-27 00:00 | 91.0  |
| 2011-02-27 01:00 | 60.0  |
| 2011-02-27 02:00 | 50.0  |
| 2011-02-27 03:00 | 43.0  |
| 2011-02-27 04:00 | 33.0  |
| 2011-02-27 05:00 | 25.0  |
| 2011-02-27 06:00 | 22.0  |
| 2011-02-27 07:00 | 21.0  |
| 2011-02-27 08:00 | 23.0  |
| 2011-02-27 09:00 | 24.0  |
| 2011-02-27 10:00 | 23.0  |
| 2011-02-27 11:00 | 27.0  |
| 2011-02-27 12:00 | 25.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-02-27 13:00 | 23.0  |
| 2011-02-27 14:00 | 21.0  |
| 2011-02-27 15:00 | 22.0  |
| 2011-02-27 16:00 | 23.0  |
| 2011-02-27 17:00 | 24.0  |
| 2011-02-27 18:00 | 26.0  |
| 2011-02-27 19:00 | 26.0  |
| 2011-02-27 20:00 | 27.0  |
| 2011-02-27 21:00 | 30.0  |
| 2011-02-27 22:00 | 26.0  |
| 2011-02-27 23:00 | 23.0  |
| 2011-02-28 00:00 | 21.0  |
| 2011-02-28 01:00 | 10.0  |
| 2011-02-28 02:00 | 10.0  |
| 2011-02-28 03:00 | 12.0  |
| 2011-02-28 04:00 | 12.0  |
| 2011-02-28 05:00 | 14.0  |
| 2011-02-28 06:00 | 16.0  |
| 2011-02-28 07:00 | 17.0  |
| 2011-02-28 08:00 | 20.0  |
| 2011-02-28 09:00 | 23.0  |
| 2011-02-28 10:00 | 27.0  |
| 2011-02-28 11:00 | 34.0  |
| 2011-02-28 12:00 | 42.0  |
| 2011-02-28 13:00 | 43.0  |
| 2011-02-28 14:00 | 47.0  |
| 2011-02-28 15:00 | 48.0  |
| 2011-02-28 16:00 | 54.0  |
| 2011-02-28 17:00 | 63.0  |
| 2011-02-28 18:00 | 76.0  |
| 2011-02-28 19:00 | 91.0  |
| 2011-02-28 20:00 | 111.0 |
| 2011-02-28 21:00 | 127.0 |
| 2011-02-28 22:00 | 151.0 |
| 2011-02-28 23:00 | 151.0 |
| 2011-03-01 00:00 | 150.0 |
| 2011-03-01 01:00 | 142.0 |
| 2011-03-01 02:00 | 141.0 |
| 2011-03-01 03:00 | 137.0 |
| 2011-03-01 04:00 | 134.0 |
| 2011-03-01 05:00 | 116.0 |
| 2011-03-01 06:00 | 93.0  |
| 2011-03-01 07:00 | 84.0  |
| 2011-03-01 08:00 | 83.0  |
| 2011-03-01 09:00 | 83.0  |
| 2011-03-01 10:00 | 91.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-03-01 11:00 | 106.0 |
| 2011-03-01 12:00 | 118.0 |
| 2011-03-01 13:00 | 121.0 |
| 2011-03-01 14:00 | 125.0 |
| 2011-03-01 15:00 | 125.0 |
| 2011-03-01 16:00 | 128.0 |
| 2011-03-01 17:00 | 131.0 |
| 2011-03-01 18:00 | 140.0 |
| 2011-03-01 19:00 | 135.0 |
| 2011-03-01 20:00 | 136.0 |
| 2011-03-01 21:00 | 135.0 |
| 2011-03-01 22:00 | 126.0 |
| 2011-03-01 23:00 | 114.0 |
| 2011-03-02 00:00 | 105.0 |
| 2011-03-02 01:00 | 35.0  |
| 2011-03-02 02:00 | 31.0  |
| 2011-03-02 03:00 | 25.0  |
| 2011-03-02 04:00 | 28.0  |
| 2011-03-02 05:00 | 26.0  |
| 2011-03-02 06:00 | 28.0  |
| 2011-03-02 07:00 | 45.0  |
| 2011-03-02 08:00 | 66.0  |
| 2011-03-02 09:00 | 89.0  |
| 2011-03-02 10:00 | 112.0 |
| 2011-03-02 11:00 | 138.0 |
| 2011-03-02 12:00 | 146.0 |
| 2011-03-02 13:00 | 146.0 |
| 2011-03-02 14:00 | 144.0 |
| 2011-03-02 15:00 | 143.0 |
| 2011-03-02 16:00 | 143.0 |
| 2011-03-02 17:00 | 144.0 |
| 2011-03-02 18:00 | 144.0 |
| 2011-03-02 19:00 | 147.0 |
| 2011-03-02 20:00 | 149.0 |
| 2011-03-02 21:00 | 150.0 |
| 2011-03-02 22:00 | 148.0 |
| 2011-03-02 23:00 | 145.0 |
| 2011-03-03 00:00 | 144.0 |
| 2011-03-03 01:00 | 102.0 |
| 2011-03-03 02:00 | 74.0  |
| 2011-03-03 03:00 | 60.0  |
| 2011-03-03 04:00 | 66.0  |
| 2011-03-03 05:00 | 79.0  |
| 2011-03-03 06:00 | 90.0  |
| 2011-03-03 07:00 | 99.0  |
| 2011-03-03 08:00 | 104.0 |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-03-03 09:00 | 118.0 |
| 2011-03-03 10:00 | 116.0 |
| 2011-03-03 11:00 | 115.0 |
| 2011-03-03 12:00 | 114.0 |
| 2011-03-03 13:00 | 117.0 |
| 2011-03-03 14:00 | 108.0 |
| 2011-03-03 15:00 | 108.0 |
| 2011-03-03 16:00 | 105.0 |
| 2011-03-03 17:00 | 107.0 |
| 2011-03-03 18:00 | 108.0 |
| 2011-03-03 19:00 | 111.0 |
| 2011-03-03 20:00 | 113.0 |
| 2011-03-03 21:00 | 114.0 |
| 2011-03-03 22:00 | 117.0 |
| 2011-03-03 23:00 | 122.0 |
| 2011-03-04 00:00 | 121.0 |
| 2011-03-04 01:00 | 86.0  |
| 2011-03-04 02:00 | 81.0  |
| 2011-03-04 03:00 | 73.0  |
| 2011-03-04 04:00 | 68.0  |
| 2011-03-04 05:00 | 64.0  |
| 2011-03-04 06:00 | 59.0  |
| 2011-03-04 07:00 | 58.0  |
| 2011-03-04 08:00 | 55.0  |
| 2011-03-04 09:00 | 54.0  |
| 2011-03-04 10:00 | 56.0  |
| 2011-03-04 11:00 | 61.0  |
| 2011-03-04 12:00 | 65.0  |
| 2011-03-04 13:00 | 55.0  |
| 2011-03-04 14:00 | 48.0  |
| 2011-03-04 15:00 | 43.0  |
| 2011-03-04 16:00 | 38.0  |
| 2011-03-04 17:00 | 35.0  |
| 2011-03-04 18:00 | 29.0  |
| 2011-03-04 19:00 | 28.0  |
| 2011-03-04 20:00 | 26.0  |
| 2011-03-04 21:00 | 24.0  |
| 2011-03-04 22:00 | 21.0  |
| 2011-03-04 23:00 | 19.0  |
| 2011-03-05 00:00 | 17.0  |
| 2011-03-05 01:00 | 7.0   |
| 2011-03-05 02:00 | 7.0   |
| 2011-03-05 03:00 | 6.0   |
| 2011-03-05 04:00 | 10.0  |
| 2011-03-05 05:00 | 12.0  |
| 2011-03-05 06:00 | 15.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-03-05 07:00 | 18.0  |
| 2011-03-05 08:00 | 26.0  |
| 2011-03-05 09:00 | 36.0  |
| 2011-03-05 10:00 | 44.0  |
| 2011-03-05 11:00 | 62.0  |
| 2011-03-05 12:00 | 83.0  |
| 2011-03-05 13:00 | 90.0  |
| 2011-03-05 14:00 | 90.0  |
| 2011-03-05 15:00 | 92.0  |
| 2011-03-05 16:00 | 90.0  |
| 2011-03-05 17:00 | 89.0  |
| 2011-03-05 18:00 | 91.0  |
| 2011-03-05 19:00 | 95.0  |
| 2011-03-05 20:00 | 97.0  |
| 2011-03-05 21:00 | 100.0 |
| 2011-03-05 22:00 | 100.0 |
| 2011-03-05 23:00 | 98.0  |
| 2011-03-06 00:00 | 97.0  |
| 2011-03-06 01:00 | 131.0 |
| 2011-03-06 02:00 | 129.0 |
| 2011-03-06 03:00 | 129.0 |
| 2011-03-06 04:00 | 125.0 |
| 2011-03-06 05:00 | 117.0 |
| 2011-03-06 06:00 | 114.0 |
| 2011-03-06 07:00 | 111.0 |
| 2011-03-06 08:00 | 105.0 |
| 2011-03-06 09:00 | 103.0 |
| 2011-03-06 10:00 | 96.0  |
| 2011-03-06 11:00 | 97.0  |
| 2011-03-06 12:00 | 100.0 |
| 2011-03-06 13:00 | 100.0 |
| 2011-03-06 14:00 | 100.0 |
| 2011-03-06 15:00 | 104.0 |
| 2011-03-06 16:00 | 101.0 |
| 2011-03-06 17:00 | 101.0 |
| 2011-03-06 18:00 | 102.0 |
| 2011-03-06 19:00 | 102.0 |
| 2011-03-06 20:00 | 103.0 |
| 2011-03-06 21:00 | 98.0  |
| 2011-03-06 22:00 | 96.0  |
| 2011-03-06 23:00 | 90.0  |
| 2011-03-07 00:00 | 83.0  |
| 2011-03-07 01:00 | 117.0 |
| 2011-03-07 02:00 | 114.0 |
| 2011-03-07 03:00 | 114.0 |
| 2011-03-07 04:00 | 106.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-03-07 05:00 | 97.0  |
| 2011-03-07 06:00 | 88.0  |
| 2011-03-07 07:00 | 81.0  |
| 2011-03-07 08:00 | 76.0  |
| 2011-03-07 09:00 | 73.0  |
| 2011-03-07 10:00 | 77.0  |
| 2011-03-07 11:00 | 81.0  |
| 2011-03-07 12:00 | 92.0  |
| 2011-03-07 13:00 | 104.0 |
| 2011-03-07 14:00 | 121.0 |
| 2011-03-07 15:00 | 131.0 |
| 2011-03-07 16:00 | 138.0 |
| 2011-03-07 17:00 | 143.0 |
| 2011-03-07 18:00 | 145.0 |
| 2011-03-07 19:00 | 148.0 |
| 2011-03-07 20:00 | 150.0 |
| 2011-03-07 21:00 | 152.0 |
| 2011-03-07 22:00 | 149.0 |
| 2011-03-07 23:00 | 147.0 |
| 2011-03-08 00:00 | 144.0 |
| 2011-03-08 01:00 | 120.0 |
| 2011-03-08 02:00 | 104.0 |
| 2011-03-08 03:00 | 92.0  |
| 2011-03-08 04:00 | 81.0  |
| 2011-03-08 05:00 | 75.0  |
| 2011-03-08 06:00 | 68.0  |
| 2011-03-08 07:00 | 82.0  |
| 2011-03-08 08:00 | 96.0  |
| 2011-03-08 09:00 | 117.0 |
| 2011-03-08 10:00 | 98.0  |
| 2011-03-08 11:00 | 94.0  |
| 2011-03-08 12:00 | 84.0  |
| 2011-03-08 13:00 | 74.0  |
| 2011-03-08 14:00 | 63.0  |
| 2011-03-08 15:00 | 56.0  |
| 2011-03-08 16:00 | 59.0  |
| 2011-03-08 17:00 | 62.0  |
| 2011-03-08 18:00 | 64.0  |
| 2011-03-08 19:00 | 62.0  |
| 2011-03-08 20:00 | 57.0  |
| 2011-03-08 21:00 | 55.0  |
| 2011-03-08 22:00 | 53.0  |
| 2011-03-08 23:00 | 50.0  |
| 2011-03-09 00:00 | 43.0  |
| 2011-03-09 01:00 | 33.0  |
| 2011-03-09 02:00 | 31.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-03-09 03:00 | 30.0 |
| 2011-03-09 04:00 | 32.0 |
| 2011-03-09 05:00 | 31.0 |
| 2011-03-09 06:00 | 33.0 |
| 2011-03-09 07:00 | 28.0 |
| 2011-03-09 08:00 | 29.0 |
| 2011-03-09 09:00 | 32.0 |
| 2011-03-09 10:00 | 36.0 |
| 2011-03-09 11:00 | 40.0 |
| 2011-03-09 12:00 | 41.0 |
| 2011-03-09 13:00 | 43.0 |
| 2011-03-09 14:00 | 42.0 |
| 2011-03-09 15:00 | 51.0 |
| 2011-03-09 16:00 | 53.0 |
| 2011-03-09 17:00 | 55.0 |
| 2011-03-09 18:00 | 59.0 |
| 2011-03-09 19:00 | 61.0 |
| 2011-03-09 20:00 | 61.0 |
| 2011-03-09 21:00 | 64.0 |
| 2011-03-09 22:00 | 58.0 |
| 2011-03-09 23:00 | 56.0 |
| 2011-03-10 00:00 | 49.0 |
| 2011-03-10 01:00 | 32.0 |
| 2011-03-10 02:00 | 30.0 |
| 2011-03-10 03:00 | 30.0 |
| 2011-03-10 04:00 | 30.0 |
| 2011-03-10 05:00 | 32.0 |
| 2011-03-10 06:00 | 34.0 |
| 2011-03-10 07:00 | 33.0 |
| 2011-03-10 08:00 | 34.0 |
| 2011-03-10 09:00 | 35.0 |
| 2011-03-10 10:00 | 36.0 |
| 2011-03-10 11:00 | 41.0 |
| 2011-03-10 12:00 | 43.0 |
| 2011-03-10 13:00 | 44.0 |
| 2011-03-10 14:00 | 46.0 |
| 2011-03-10 15:00 | 46.0 |
| 2011-03-10 16:00 | 47.0 |
| 2011-03-10 17:00 | 49.0 |
| 2011-03-10 18:00 | 50.0 |
| 2011-03-10 19:00 | 52.0 |
| 2011-03-10 20:00 | 55.0 |
| 2011-03-10 21:00 | 55.0 |
| 2011-03-10 22:00 | 57.0 |
| 2011-03-10 23:00 | 60.0 |
| 2011-03-11 00:00 | 65.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-03-11 01:00 | 52.0  |
| 2011-03-11 02:00 | 52.0  |
| 2011-03-11 03:00 | 57.0  |
| 2011-03-11 04:00 | 54.0  |
| 2011-03-11 05:00 | 51.0  |
| 2011-03-11 06:00 | 49.0  |
| 2011-03-11 07:00 | 52.0  |
| 2011-03-11 08:00 | 59.0  |
| 2011-03-11 09:00 | 70.0  |
| 2011-03-11 10:00 | 72.0  |
| 2011-03-11 11:00 | 75.0  |
| 2011-03-11 12:00 | 74.0  |
| 2011-03-11 13:00 | 76.0  |
| 2011-03-11 14:00 | 75.0  |
| 2011-03-11 15:00 | 74.0  |
| 2011-03-11 16:00 | 74.0  |
| 2011-03-11 17:00 | 77.0  |
| 2011-03-11 18:00 | 77.0  |
| 2011-03-11 19:00 | 83.0  |
| 2011-03-11 20:00 | 85.0  |
| 2011-03-11 21:00 | 89.0  |
| 2011-03-11 22:00 | 97.0  |
| 2011-03-11 23:00 | 98.0  |
| 2011-03-12 00:00 | 98.0  |
| 2011-03-12 01:00 | 121.0 |
| 2011-03-12 02:00 | 128.0 |
| 2011-03-12 03:00 | 129.0 |
| 2011-03-12 04:00 | 131.0 |
| 2011-03-12 05:00 | 133.0 |
| 2011-03-12 06:00 | 129.0 |
| 2011-03-12 07:00 | 123.0 |
| 2011-03-12 08:00 | 122.0 |
| 2011-03-12 09:00 | 117.0 |
| 2011-03-12 10:00 | 118.0 |
| 2011-03-12 11:00 | 115.0 |
| 2011-03-12 12:00 | 101.0 |
| 2011-03-12 13:00 | 89.0  |
| 2011-03-12 14:00 | 76.0  |
| 2011-03-12 15:00 | 67.0  |
| 2011-03-12 16:00 | 81.0  |
| 2011-03-12 17:00 | 89.0  |
| 2011-03-12 18:00 | 102.0 |
| 2011-03-12 19:00 | 112.0 |
| 2011-03-12 20:00 | 125.0 |
| 2011-03-12 21:00 | 133.0 |
| 2011-03-12 22:00 | 128.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-03-12 23:00 | 122.0 |
| 2011-03-13 00:00 | 110.0 |
| 2011-03-13 01:00 | 76.0  |
| 2011-03-13 02:00 | 65.0  |
| 2011-03-13 03:00 | 59.0  |
| 2011-03-13 04:00 | 56.0  |
| 2011-03-13 05:00 | 55.0  |
| 2011-03-13 06:00 | 51.0  |
| 2011-03-13 07:00 | 51.0  |
| 2011-03-13 08:00 | 55.0  |
| 2011-03-13 09:00 | 58.0  |
| 2011-03-13 10:00 | 58.0  |
| 2011-03-13 11:00 | 57.0  |
| 2011-03-13 12:00 | 57.0  |
| 2011-03-13 13:00 | 49.0  |
| 2011-03-13 14:00 | 41.0  |
| 2011-03-13 15:00 | 30.0  |
| 2011-03-13 16:00 | 30.0  |
| 2011-03-13 17:00 | 32.0  |
| 2011-03-13 18:00 | 35.0  |
| 2011-03-13 19:00 | 40.0  |
| 2011-03-13 20:00 | 42.0  |
| 2011-03-13 21:00 | 49.0  |
| 2011-03-13 22:00 | 46.0  |
| 2011-03-13 23:00 | 50.0  |
| 2011-03-14 00:00 | 57.0  |
| 2011-03-14 01:00 | 14.0  |
| 2011-03-14 02:00 | 22.0  |
| 2011-03-14 03:00 | 35.0  |
| 2011-03-14 04:00 | 40.0  |
| 2011-03-14 05:00 | 51.0  |
| 2011-03-14 06:00 | 65.0  |
| 2011-03-14 07:00 | 75.0  |
| 2011-03-14 08:00 | 79.0  |
| 2011-03-14 09:00 | 88.0  |
| 2011-03-14 10:00 | 89.0  |
| 2011-03-14 11:00 | 96.0  |
| 2011-03-14 12:00 | 94.0  |
| 2011-03-14 13:00 | 100.0 |
| 2011-03-14 14:00 | 105.0 |
| 2011-03-14 15:00 | 108.0 |
| 2011-03-14 16:00 | 109.0 |
| 2011-03-14 17:00 | 108.0 |
| 2011-03-14 18:00 | 110.0 |
| 2011-03-14 19:00 | 111.0 |
| 2011-03-14 20:00 | 113.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-03-14 21:00 | 114.0 |
| 2011-03-14 22:00 | 108.0 |
| 2011-03-14 23:00 | 90.0  |
| 2011-03-15 00:00 | 85.0  |
| 2011-03-15 01:00 | 56.0  |
| 2011-03-15 02:00 | 47.0  |
| 2011-03-15 03:00 | 38.0  |
| 2011-03-15 04:00 | 34.0  |
| 2011-03-15 05:00 | 28.0  |
| 2011-03-15 06:00 | 24.0  |
| 2011-03-15 07:00 | 19.0  |
| 2011-03-15 08:00 | 16.0  |
| 2011-03-15 09:00 | 16.0  |
| 2011-03-15 10:00 | 14.0  |
| 2011-03-15 11:00 | 14.0  |
| 2011-03-15 12:00 | 12.0  |
| 2011-03-15 13:00 | 11.0  |
| 2011-03-15 14:00 | 8.0   |
| 2011-03-15 15:00 | 7.0   |
| 2011-03-15 16:00 | 9.0   |
| 2011-03-15 17:00 | 12.0  |
| 2011-03-15 18:00 | 14.0  |
| 2011-03-15 19:00 | 19.0  |
| 2011-03-15 20:00 | 21.0  |
| 2011-03-15 21:00 | 21.0  |
| 2011-03-15 22:00 | 20.0  |
| 2011-03-15 23:00 | 26.0  |
| 2011-03-16 00:00 | 28.0  |
| 2011-03-16 01:00 | 0.0   |
| 2011-03-16 02:00 | 0.0   |
| 2011-03-16 03:00 | 0.0   |
| 2011-03-16 04:00 | 0.0   |
| 2011-03-16 05:00 | 0.0   |
| 2011-03-16 06:00 | 0.0   |
| 2011-03-16 07:00 | 0.0   |
| 2011-03-16 08:00 | 0.0   |
| 2011-03-16 09:00 | 0.0   |
| 2011-03-16 10:00 | 0.0   |
| 2011-03-16 11:00 | 0.0   |
| 2011-03-16 12:00 | 0.0   |
| 2011-03-16 13:00 | 0.0   |
| 2011-03-16 14:00 | 0.0   |
| 2011-03-16 15:00 | 0.0   |
| 2011-03-16 16:00 | 0.0   |
| 2011-03-16 17:00 | 0.0   |
| 2011-03-16 18:00 | 0.0   |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-03-16 19:00 | 0.0   |
| 2011-03-16 20:00 | 0.0   |
| 2011-03-16 21:00 | 0.0   |
| 2011-03-16 22:00 | 0.0   |
| 2011-03-16 23:00 | 0.0   |
| 2011-03-17 00:00 | 0.0   |
| 2011-03-17 01:00 | 102.0 |
| 2011-03-17 02:00 | 103.0 |
| 2011-03-17 03:00 | 101.0 |
| 2011-03-17 04:00 | 103.0 |
| 2011-03-17 05:00 | 97.0  |
| 2011-03-17 06:00 | 88.0  |
| 2011-03-17 07:00 | 81.0  |
| 2011-03-17 08:00 | 68.0  |
| 2011-03-17 09:00 | 61.0  |
| 2011-03-17 10:00 | 51.0  |
| 2011-03-17 11:00 | 52.0  |
| 2011-03-17 12:00 | 52.0  |
| 2011-03-17 13:00 | 52.0  |
| 2011-03-17 14:00 | 57.0  |
| 2011-03-17 15:00 | 61.0  |
| 2011-03-17 16:00 | 67.0  |
| 2011-03-17 17:00 | 65.0  |
| 2011-03-17 18:00 | 57.0  |
| 2011-03-17 19:00 | 55.0  |
| 2011-03-17 20:00 | 39.0  |
| 2011-03-17 21:00 | 28.0  |
| 2011-03-17 22:00 | 15.0  |
| 2011-03-17 23:00 | 14.0  |
| 2011-03-18 00:00 | 11.0  |
| 2011-03-18 01:00 | 3.0   |
| 2011-03-18 02:00 | 5.0   |
| 2011-03-18 03:00 | 6.0   |
| 2011-03-18 04:00 | 8.0   |
| 2011-03-18 05:00 | 8.0   |
| 2011-03-18 06:00 | 8.0   |
| 2011-03-18 07:00 | 11.0  |
| 2011-03-18 08:00 | 24.0  |
| 2011-03-18 09:00 | 38.0  |
| 2011-03-18 10:00 | 52.0  |
| 2011-03-18 11:00 | 78.0  |
| 2011-03-18 12:00 | 105.0 |
| 2011-03-18 13:00 | 137.0 |
| 2011-03-18 14:00 | 147.0 |
| 2011-03-18 15:00 | 152.0 |
| 2011-03-18 16:00 | 157.0 |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-03-18 17:00 | 162.0 |
| 2011-03-18 18:00 | 163.0 |
| 2011-03-18 19:00 | 160.0 |
| 2011-03-18 20:00 | 159.0 |
| 2011-03-18 21:00 | 155.0 |
| 2011-03-18 22:00 | 143.0 |
| 2011-03-18 23:00 | 161.0 |
| 2011-03-19 00:00 | 161.0 |
| 2011-03-19 01:00 | 146.0 |
| 2011-03-19 02:00 | 142.0 |
| 2011-03-19 03:00 | 138.0 |
| 2011-03-19 04:00 | 132.0 |
| 2011-03-19 05:00 | 121.0 |
| 2011-03-19 06:00 | 108.0 |
| 2011-03-19 07:00 | 101.0 |
| 2011-03-19 08:00 | 105.0 |
| 2011-03-19 09:00 | 108.0 |
| 2011-03-19 10:00 | 112.0 |
| 2011-03-19 11:00 | 113.0 |
| 2011-03-19 12:00 | 114.0 |
| 2011-03-19 13:00 | 114.0 |
| 2011-03-19 14:00 | 114.0 |
| 2011-03-19 15:00 | 110.0 |
| 2011-03-19 16:00 | 111.0 |
| 2011-03-19 17:00 | 111.0 |
| 2011-03-19 18:00 | 111.0 |
| 2011-03-19 19:00 | 113.0 |
| 2011-03-19 20:00 | 102.0 |
| 2011-03-19 21:00 | 97.0  |
| 2011-03-19 22:00 | 83.0  |
| 2011-03-19 23:00 | 89.0  |
| 2011-03-20 00:00 | 90.0  |
| 2011-03-20 01:00 | 100.0 |
| 2011-03-20 02:00 | 98.0  |
| 2011-03-20 03:00 | 94.0  |
| 2011-03-20 04:00 | 89.0  |
| 2011-03-20 05:00 | 78.0  |
| 2011-03-20 06:00 | 74.0  |
| 2011-03-20 07:00 | 67.0  |
| 2011-03-20 08:00 | 66.0  |
| 2011-03-20 09:00 | 63.0  |
| 2011-03-20 10:00 | 62.0  |
| 2011-03-20 11:00 | 65.0  |
| 2011-03-20 12:00 | 66.0  |
| 2011-03-20 13:00 | 68.0  |
| 2011-03-20 14:00 | 68.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-03-20 15:00 | 66.0 |
| 2011-03-20 16:00 | 65.0 |
| 2011-03-20 17:00 | 63.0 |
| 2011-03-20 18:00 | 62.0 |
| 2011-03-20 19:00 | 61.0 |
| 2011-03-20 20:00 | 55.0 |
| 2011-03-20 21:00 | 48.0 |
| 2011-03-20 22:00 | 44.0 |
| 2011-03-20 23:00 | 35.0 |
| 2011-03-21 00:00 | 27.0 |
| 2011-03-21 01:00 | 18.0 |
| 2011-03-21 02:00 | 16.0 |
| 2011-03-21 03:00 | 10.0 |
| 2011-03-21 04:00 | 8.0  |
| 2011-03-21 05:00 | 7.0  |
| 2011-03-21 06:00 | 6.0  |
| 2011-03-21 07:00 | 5.0  |
| 2011-03-21 08:00 | 5.0  |
| 2011-03-21 09:00 | 5.0  |
| 2011-03-21 10:00 | 5.0  |
| 2011-03-21 11:00 | 4.0  |
| 2011-03-21 12:00 | 4.0  |
| 2011-03-21 13:00 | 2.0  |
| 2011-03-21 14:00 | 4.0  |
| 2011-03-21 15:00 | 6.0  |
| 2011-03-21 16:00 | 11.0 |
| 2011-03-21 17:00 | 9.0  |
| 2011-03-21 18:00 | 7.0  |
| 2011-03-21 19:00 | 5.0  |
| 2011-03-21 20:00 | 7.0  |
| 2011-03-21 21:00 | 10.0 |
| 2011-03-21 22:00 | 11.0 |
| 2011-03-21 23:00 | 17.0 |
| 2011-03-22 00:00 | 24.0 |
| 2011-03-22 01:00 | 36.0 |
| 2011-03-22 02:00 | 36.0 |
| 2011-03-22 03:00 | 33.0 |
| 2011-03-22 04:00 | 33.0 |
| 2011-03-22 05:00 | 37.0 |
| 2011-03-22 06:00 | 42.0 |
| 2011-03-22 07:00 | 44.0 |
| 2011-03-22 08:00 | 46.0 |
| 2011-03-22 09:00 | 50.0 |
| 2011-03-22 10:00 | 56.0 |
| 2011-03-22 11:00 | 57.0 |
| 2011-03-22 12:00 | 61.0 |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-03-22 13:00 | 62.0 |
| 2011-03-22 14:00 | 63.0 |
| 2011-03-22 15:00 | 60.0 |
| 2011-03-22 16:00 | 60.0 |
| 2011-03-22 17:00 | 60.0 |
| 2011-03-22 18:00 | 60.0 |
| 2011-03-22 19:00 | 61.0 |
| 2011-03-22 20:00 | 50.0 |
| 2011-03-22 21:00 | 39.0 |
| 2011-03-22 22:00 | 30.0 |
| 2011-03-22 23:00 | 22.0 |
| 2011-03-23 00:00 | 18.0 |
| 2011-03-23 01:00 | 13.0 |
| 2011-03-23 02:00 | 12.0 |
| 2011-03-23 03:00 | 12.0 |
| 2011-03-23 04:00 | 12.0 |
| 2011-03-23 05:00 | 13.0 |
| 2011-03-23 06:00 | 15.0 |
| 2011-03-23 07:00 | 17.0 |
| 2011-03-23 08:00 | 18.0 |
| 2011-03-23 09:00 | 18.0 |
| 2011-03-23 10:00 | 23.0 |
| 2011-03-23 11:00 | 22.0 |
| 2011-03-23 12:00 | 23.0 |
| 2011-03-23 13:00 | 25.0 |
| 2011-03-23 14:00 | 24.0 |
| 2011-03-23 15:00 | 31.0 |
| 2011-03-23 16:00 | 34.0 |
| 2011-03-23 17:00 | 34.0 |
| 2011-03-23 18:00 | 37.0 |
| 2011-03-23 19:00 | 38.0 |
| 2011-03-23 20:00 | 33.0 |
| 2011-03-23 21:00 | 30.0 |
| 2011-03-23 22:00 | 26.0 |
| 2011-03-23 23:00 | 22.0 |
| 2011-03-24 00:00 | 20.0 |
| 2011-03-24 01:00 | 7.0  |
| 2011-03-24 02:00 | 6.0  |
| 2011-03-24 03:00 | 6.0  |
| 2011-03-24 04:00 | 5.0  |
| 2011-03-24 05:00 | 6.0  |
| 2011-03-24 06:00 | 9.0  |
| 2011-03-24 07:00 | 12.0 |
| 2011-03-24 08:00 | 17.0 |
| 2011-03-24 09:00 | 21.0 |
| 2011-03-24 10:00 | 26.0 |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-03-24 11:00 | 29.0 |
| 2011-03-24 12:00 | 31.0 |
| 2011-03-24 13:00 | 34.0 |
| 2011-03-24 14:00 | 38.0 |
| 2011-03-24 15:00 | 41.0 |
| 2011-03-24 16:00 | 45.0 |
| 2011-03-24 17:00 | 47.0 |
| 2011-03-24 18:00 | 48.0 |
| 2011-03-24 19:00 | 46.0 |
| 2011-03-24 20:00 | 47.0 |
| 2011-03-24 21:00 | 50.0 |
| 2011-03-24 22:00 | 52.0 |
| 2011-03-24 23:00 | 59.0 |
| 2011-03-25 00:00 | 61.0 |
| 2011-03-25 01:00 | 64.0 |
| 2011-03-25 02:00 | 63.0 |
| 2011-03-25 03:00 | 68.0 |
| 2011-03-25 04:00 | 65.0 |
| 2011-03-25 05:00 | 66.0 |
| 2011-03-25 06:00 | 67.0 |
| 2011-03-25 07:00 | 70.0 |
| 2011-03-25 08:00 | 69.0 |
| 2011-03-25 09:00 | 67.0 |
| 2011-03-25 10:00 | 67.0 |
| 2011-03-25 11:00 | 71.0 |
| 2011-03-25 12:00 | 76.0 |
| 2011-03-25 13:00 | 81.0 |
| 2011-03-25 14:00 | 82.0 |
| 2011-03-25 15:00 | 82.0 |
| 2011-03-25 16:00 | 80.0 |
| 2011-03-25 17:00 | 77.0 |
| 2011-03-25 18:00 | 74.0 |
| 2011-03-25 19:00 | 69.0 |
| 2011-03-25 20:00 | 65.0 |
| 2011-03-25 21:00 | 58.0 |
| 2011-03-25 22:00 | 56.0 |
| 2011-03-25 23:00 | 60.0 |
| 2011-03-26 00:00 | 63.0 |
| 2011-03-26 01:00 | 36.0 |
| 2011-03-26 02:00 | 33.0 |
| 2011-03-26 03:00 | 36.0 |
| 2011-03-26 04:00 | 33.0 |
| 2011-03-26 05:00 | 32.0 |
| 2011-03-26 06:00 | 32.0 |
| 2011-03-26 07:00 | 32.0 |
| 2011-03-26 08:00 | 38.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-03-26 09:00 | 45.0  |
| 2011-03-26 10:00 | 49.0  |
| 2011-03-26 11:00 | 53.0  |
| 2011-03-26 12:00 | 61.0  |
| 2011-03-26 13:00 | 69.0  |
| 2011-03-26 14:00 | 69.0  |
| 2011-03-26 15:00 | 69.0  |
| 2011-03-26 16:00 | 71.0  |
| 2011-03-26 17:00 | 76.0  |
| 2011-03-26 18:00 | 77.0  |
| 2011-03-26 19:00 | 80.0  |
| 2011-03-26 20:00 | 80.0  |
| 2011-03-26 21:00 | 80.0  |
| 2011-03-26 22:00 | 81.0  |
| 2011-03-26 23:00 | 85.0  |
| 2011-03-27 00:00 | 93.0  |
| 2011-03-27 01:00 | 99.0  |
| 2011-03-27 02:00 | 101.0 |
| 2011-03-27 03:00 | 105.0 |
| 2011-03-27 04:00 | 106.0 |
| 2011-03-27 05:00 | 108.0 |
| 2011-03-27 06:00 | 109.0 |
| 2011-03-27 07:00 | 110.0 |
| 2011-03-27 08:00 | 112.0 |
| 2011-03-27 09:00 | 112.0 |
| 2011-03-27 10:00 | 114.0 |
| 2011-03-27 11:00 | 113.0 |
| 2011-03-27 12:00 | 112.0 |
| 2011-03-27 13:00 | 112.0 |
| 2011-03-27 14:00 | 110.0 |
| 2011-03-27 15:00 | 108.0 |
| 2011-03-27 16:00 | 107.0 |
| 2011-03-27 17:00 | 103.0 |
| 2011-03-27 18:00 | 96.0  |
| 2011-03-27 19:00 | 92.0  |
| 2011-03-27 20:00 | 84.0  |
| 2011-03-27 21:00 | 77.0  |
| 2011-03-27 22:00 | 67.0  |
| 2011-03-27 23:00 | 69.0  |
| 2011-03-28 00:00 | 70.0  |
| 2011-03-28 01:00 | 89.0  |
| 2011-03-28 02:00 | 85.0  |
| 2011-03-28 03:00 | 81.0  |
| 2011-03-28 04:00 | 80.0  |
| 2011-03-28 05:00 | 77.0  |
| 2011-03-28 06:00 | 77.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-03-28 07:00 | 77.0  |
| 2011-03-28 08:00 | 84.0  |
| 2011-03-28 09:00 | 91.0  |
| 2011-03-28 10:00 | 102.0 |
| 2011-03-28 11:00 | 101.0 |
| 2011-03-28 12:00 | 93.0  |
| 2011-03-28 13:00 | 92.0  |
| 2011-03-28 14:00 | 94.0  |
| 2011-03-28 15:00 | 97.0  |
| 2011-03-28 16:00 | 98.0  |
| 2011-03-28 17:00 | 93.0  |
| 2011-03-28 18:00 | 91.0  |
| 2011-03-28 19:00 | 91.0  |
| 2011-03-28 20:00 | 90.0  |
| 2011-03-28 21:00 | 93.0  |
| 2011-03-28 22:00 | 87.0  |
| 2011-03-28 23:00 | 88.0  |
| 2011-03-29 00:00 | 97.0  |
| 2011-03-29 01:00 | 108.0 |
| 2011-03-29 02:00 | 109.0 |
| 2011-03-29 03:00 | 109.0 |
| 2011-03-29 04:00 | 107.0 |
| 2011-03-29 05:00 | 108.0 |
| 2011-03-29 06:00 | 105.0 |
| 2011-03-29 07:00 | 105.0 |
| 2011-03-29 08:00 | 110.0 |
| 2011-03-29 09:00 | 111.0 |
| 2011-03-29 10:00 | 111.0 |
| 2011-03-29 11:00 | 106.0 |
| 2011-03-29 12:00 | 104.0 |
| 2011-03-29 13:00 | 94.0  |
| 2011-03-29 14:00 | 94.0  |
| 2011-03-29 15:00 | 91.0  |
| 2011-03-29 16:00 | 89.0  |
| 2011-03-29 17:00 | 97.0  |
| 2011-03-29 18:00 | 99.0  |
| 2011-03-29 19:00 | 101.0 |
| 2011-03-29 20:00 | 96.0  |
| 2011-03-29 21:00 | 89.0  |
| 2011-03-29 22:00 | 83.0  |
| 2011-03-29 23:00 | 82.0  |
| 2011-03-30 00:00 | 84.0  |
| 2011-03-30 01:00 | 43.0  |
| 2011-03-30 02:00 | 40.0  |
| 2011-03-30 03:00 | 38.0  |
| 2011-03-30 04:00 | 37.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-03-30 05:00 | 35.0 |
| 2011-03-30 06:00 | 32.0 |
| 2011-03-30 07:00 | 32.0 |
| 2011-03-30 08:00 | 40.0 |
| 2011-03-30 09:00 | 44.0 |
| 2011-03-30 10:00 | 51.0 |
| 2011-03-30 11:00 | 56.0 |
| 2011-03-30 12:00 | 63.0 |
| 2011-03-30 13:00 | 72.0 |
| 2011-03-30 14:00 | 77.0 |
| 2011-03-30 15:00 | 81.0 |
| 2011-03-30 16:00 | 83.0 |
| 2011-03-30 17:00 | 77.0 |
| 2011-03-30 18:00 | 69.0 |
| 2011-03-30 19:00 | 62.0 |
| 2011-03-30 20:00 | 48.0 |
| 2011-03-30 21:00 | 38.0 |
| 2011-03-30 22:00 | 26.0 |
| 2011-03-30 23:00 | 23.0 |
| 2011-03-31 00:00 | 18.0 |
| 2011-03-31 01:00 | 15.0 |
| 2011-03-31 02:00 | 14.0 |
| 2011-03-31 03:00 | 12.0 |
| 2011-03-31 04:00 | 13.0 |
| 2011-03-31 05:00 | 12.0 |
| 2011-03-31 06:00 | 12.0 |
| 2011-03-31 07:00 | 12.0 |
| 2011-03-31 08:00 | 12.0 |
| 2011-03-31 09:00 | 11.0 |
| 2011-03-31 10:00 | 11.0 |
| 2011-03-31 11:00 | 10.0 |
| 2011-03-31 12:00 | 10.0 |
| 2011-03-31 13:00 | 10.0 |
| 2011-03-31 14:00 | 6.0  |
| 2011-03-31 15:00 | 3.0  |
| 2011-03-31 16:00 | 2.0  |
| 2011-03-31 17:00 | 1.0  |
| 2011-03-31 18:00 | 2.0  |
| 2011-03-31 19:00 | 1.0  |
| 2011-03-31 20:00 | 2.0  |
| 2011-03-31 21:00 | 5.0  |
| 2011-03-31 22:00 | 10.0 |
| 2011-03-31 23:00 | 11.0 |
| 2011-04-01 00:00 | 14.0 |
| 2011-04-01 01:00 | 2.0  |
| 2011-04-01 02:00 | 3.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-04-01 03:00 | 5.0   |
| 2011-04-01 04:00 | 10.0  |
| 2011-04-01 05:00 | 14.0  |
| 2011-04-01 06:00 | 16.0  |
| 2011-04-01 07:00 | 22.0  |
| 2011-04-01 08:00 | 31.0  |
| 2011-04-01 09:00 | 35.0  |
| 2011-04-01 10:00 | 41.0  |
| 2011-04-01 11:00 | 49.0  |
| 2011-04-01 12:00 | 59.0  |
| 2011-04-01 13:00 | 72.0  |
| 2011-04-01 14:00 | 88.0  |
| 2011-04-01 15:00 | 103.0 |
| 2011-04-01 16:00 | 127.0 |
| 2011-04-01 17:00 | 140.0 |
| 2011-04-01 18:00 | 154.0 |
| 2011-04-01 19:00 | 161.0 |
| 2011-04-01 20:00 | 163.0 |
| 2011-04-01 21:00 | 164.0 |
| 2011-04-01 22:00 | 155.0 |
| 2011-04-01 23:00 | 162.0 |
| 2011-04-02 00:00 | 163.0 |
| 2011-04-02 01:00 | 99.0  |
| 2011-04-02 02:00 | 88.0  |
| 2011-04-02 03:00 | 79.0  |
| 2011-04-02 04:00 | 74.0  |
| 2011-04-02 05:00 | 79.0  |
| 2011-04-02 06:00 | 83.0  |
| 2011-04-02 07:00 | 84.0  |
| 2011-04-02 08:00 | 86.0  |
| 2011-04-02 09:00 | 87.0  |
| 2011-04-02 10:00 | 86.0  |
| 2011-04-02 11:00 | 91.0  |
| 2011-04-02 12:00 | 95.0  |
| 2011-04-02 13:00 | 98.0  |
| 2011-04-02 14:00 | 98.0  |
| 2011-04-02 15:00 | 102.0 |
| 2011-04-02 16:00 | 102.0 |
| 2011-04-02 17:00 | 107.0 |
| 2011-04-02 18:00 | 110.0 |
| 2011-04-02 19:00 | 112.0 |
| 2011-04-02 20:00 | 112.0 |
| 2011-04-02 21:00 | 106.0 |
| 2011-04-02 22:00 | 100.0 |
| 2011-04-02 23:00 | 108.0 |
| 2011-04-03 00:00 | 118.0 |



## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-04-03 01:00 | 94.0 |
| 2011-04-03 02:00 | 89.0 |
| 2011-04-03 03:00 | 84.0 |
| 2011-04-03 04:00 | 75.0 |
| 2011-04-03 05:00 | 69.0 |
| 2011-04-03 06:00 | 67.0 |
| 2011-04-03 07:00 | 60.0 |
| 2011-04-03 08:00 | 58.0 |
| 2011-04-03 09:00 | 56.0 |
| 2011-04-03 10:00 | 59.0 |
| 2011-04-03 11:00 | 64.0 |
| 2011-04-03 12:00 | 64.0 |
| 2011-04-03 13:00 | 64.0 |
| 2011-04-03 14:00 | 69.0 |
| 2011-04-03 15:00 | 71.0 |
| 2011-04-03 16:00 | 72.0 |
| 2011-04-03 17:00 | 74.0 |
| 2011-04-03 18:00 | 75.0 |
| 2011-04-03 19:00 | 73.0 |
| 2011-04-03 20:00 | 64.0 |
| 2011-04-03 21:00 | 55.0 |
| 2011-04-03 22:00 | 46.0 |
| 2011-04-03 23:00 | 45.0 |
| 2011-04-04 00:00 | 47.0 |
| 2011-04-04 01:00 | 20.0 |
| 2011-04-04 02:00 | 18.0 |
| 2011-04-04 03:00 | 14.0 |
| 2011-04-04 04:00 | 14.0 |
| 2011-04-04 05:00 | 14.0 |
| 2011-04-04 06:00 | 12.0 |
| 2011-04-04 07:00 | 13.0 |
| 2011-04-04 08:00 | 12.0 |
| 2011-04-04 09:00 | 11.0 |
| 2011-04-04 10:00 | 11.0 |
| 2011-04-04 11:00 | 15.0 |
| 2011-04-04 12:00 | 17.0 |
| 2011-04-04 13:00 | 20.0 |
| 2011-04-04 14:00 | 18.0 |
| 2011-04-04 15:00 | 17.0 |
| 2011-04-04 16:00 | 16.0 |
| 2011-04-04 17:00 | 14.0 |
| 2011-04-04 18:00 | 14.0 |
| 2011-04-04 19:00 | 12.0 |
| 2011-04-04 20:00 | 16.0 |
| 2011-04-04 21:00 | 22.0 |
| 2011-04-04 22:00 | 32.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-04-04 23:00 | 40.0  |
| 2011-04-05 00:00 | 44.0  |
| 2011-04-05 01:00 | 57.0  |
| 2011-04-05 02:00 | 68.0  |
| 2011-04-05 03:00 | 81.0  |
| 2011-04-05 04:00 | 97.0  |
| 2011-04-05 05:00 | 109.0 |
| 2011-04-05 06:00 | 118.0 |
| 2011-04-05 07:00 | 132.0 |
| 2011-04-05 08:00 | 121.0 |
| 2011-04-05 09:00 | 104.0 |
| 2011-04-05 10:00 | 88.0  |
| 2011-04-05 11:00 | 94.0  |
| 2011-04-05 12:00 | 98.0  |
| 2011-04-05 13:00 | 102.0 |
| 2011-04-05 14:00 | 118.0 |
| 2011-04-05 15:00 | 127.0 |
| 2011-04-05 16:00 | 133.0 |
| 2011-04-05 17:00 | 138.0 |
| 2011-04-05 18:00 | 149.0 |
| 2011-04-05 19:00 | 153.0 |
| 2011-04-05 20:00 | 150.0 |
| 2011-04-05 21:00 | 150.0 |
| 2011-04-05 22:00 | 150.0 |
| 2011-04-05 23:00 | 161.0 |
| 2011-04-06 00:00 | 163.0 |
| 2011-04-06 01:00 | 129.0 |
| 2011-04-06 02:00 | 115.0 |
| 2011-04-06 03:00 | 97.0  |
| 2011-04-06 04:00 | 81.0  |
| 2011-04-06 05:00 | 72.0  |
| 2011-04-06 06:00 | 63.0  |
| 2011-04-06 07:00 | 52.0  |
| 2011-04-06 08:00 | 54.0  |
| 2011-04-06 09:00 | 54.0  |
| 2011-04-06 10:00 | 53.0  |
| 2011-04-06 11:00 | 55.0  |
| 2011-04-06 12:00 | 55.0  |
| 2011-04-06 13:00 | 56.0  |
| 2011-04-06 14:00 | 61.0  |
| 2011-04-06 15:00 | 63.0  |
| 2011-04-06 16:00 | 69.0  |
| 2011-04-06 17:00 | 70.0  |
| 2011-04-06 18:00 | 70.0  |
| 2011-04-06 19:00 | 74.0  |
| 2011-04-06 20:00 | 64.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-04-06 21:00 | 59.0 |
| 2011-04-06 22:00 | 53.0 |
| 2011-04-06 23:00 | 57.0 |
| 2011-04-07 00:00 | 62.0 |
| 2011-04-07 01:00 | 38.0 |
| 2011-04-07 02:00 | 42.0 |
| 2011-04-07 03:00 | 41.0 |
| 2011-04-07 04:00 | 45.0 |
| 2011-04-07 05:00 | 46.0 |
| 2011-04-07 06:00 | 46.0 |
| 2011-04-07 07:00 | 45.0 |
| 2011-04-07 08:00 | 55.0 |
| 2011-04-07 09:00 | 62.0 |
| 2011-04-07 10:00 | 69.0 |
| 2011-04-07 11:00 | 70.0 |
| 2011-04-07 12:00 | 70.0 |
| 2011-04-07 13:00 | 74.0 |
| 2011-04-07 14:00 | 78.0 |
| 2011-04-07 15:00 | 85.0 |
| 2011-04-07 16:00 | 90.0 |
| 2011-04-07 17:00 | 95.0 |
| 2011-04-07 18:00 | 97.0 |
| 2011-04-07 19:00 | 96.0 |
| 2011-04-07 20:00 | 80.0 |
| 2011-04-07 21:00 | 66.0 |
| 2011-04-07 22:00 | 50.0 |
| 2011-04-07 23:00 | 49.0 |
| 2011-04-08 00:00 | 43.0 |
| 2011-04-08 01:00 | 23.0 |
| 2011-04-08 02:00 | 21.0 |
| 2011-04-08 03:00 | 20.0 |
| 2011-04-08 04:00 | 19.0 |
| 2011-04-08 05:00 | 19.0 |
| 2011-04-08 06:00 | 16.0 |
| 2011-04-08 07:00 | 17.0 |
| 2011-04-08 08:00 | 19.0 |
| 2011-04-08 09:00 | 19.0 |
| 2011-04-08 10:00 | 22.0 |
| 2011-04-08 11:00 | 27.0 |
| 2011-04-08 12:00 | 28.0 |
| 2011-04-08 13:00 | 33.0 |
| 2011-04-08 14:00 | 37.0 |
| 2011-04-08 15:00 | 39.0 |
| 2011-04-08 16:00 | 43.0 |
| 2011-04-08 17:00 | 43.0 |
| 2011-04-08 18:00 | 44.0 |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-04-08 19:00 | 42.0 |
| 2011-04-08 20:00 | 32.0 |
| 2011-04-08 21:00 | 23.0 |
| 2011-04-08 22:00 | 19.0 |
| 2011-04-08 23:00 | 9.0  |
| 2011-04-09 00:00 | 5.0  |
| 2011-04-09 01:00 | 2.0  |
| 2011-04-09 02:00 | 3.0  |
| 2011-04-09 03:00 | 3.0  |
| 2011-04-09 04:00 | 3.0  |
| 2011-04-09 05:00 | 3.0  |
| 2011-04-09 06:00 | 3.0  |
| 2011-04-09 07:00 | 3.0  |
| 2011-04-09 08:00 | 5.0  |
| 2011-04-09 09:00 | 6.0  |
| 2011-04-09 10:00 | 7.0  |
| 2011-04-09 11:00 | 13.0 |
| 2011-04-09 12:00 | 21.0 |
| 2011-04-09 13:00 | 28.0 |
| 2011-04-09 14:00 | 30.0 |
| 2011-04-09 15:00 | 32.0 |
| 2011-04-09 16:00 | 33.0 |
| 2011-04-09 17:00 | 30.0 |
| 2011-04-09 18:00 | 26.0 |
| 2011-04-09 19:00 | 24.0 |
| 2011-04-09 20:00 | 17.0 |
| 2011-04-09 21:00 | 9.0  |
| 2011-04-09 22:00 | 4.0  |
| 2011-04-09 23:00 | 1.0  |
| 2011-04-10 00:00 | 0.0  |
| 2011-04-10 01:00 | 9.0  |
| 2011-04-10 02:00 | 9.0  |
| 2011-04-10 03:00 | 10.0 |
| 2011-04-10 04:00 | 15.0 |
| 2011-04-10 05:00 | 13.0 |
| 2011-04-10 06:00 | 12.0 |
| 2011-04-10 07:00 | 12.0 |
| 2011-04-10 08:00 | 11.0 |
| 2011-04-10 09:00 | 12.0 |
| 2011-04-10 10:00 | 11.0 |
| 2011-04-10 11:00 | 10.0 |
| 2011-04-10 12:00 | 11.0 |
| 2011-04-10 13:00 | 12.0 |
| 2011-04-10 14:00 | 13.0 |
| 2011-04-10 15:00 | 17.0 |
| 2011-04-10 16:00 | 21.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-04-10 17:00 | 18.0  |
| 2011-04-10 18:00 | 19.0  |
| 2011-04-10 19:00 | 20.0  |
| 2011-04-10 20:00 | 18.0  |
| 2011-04-10 21:00 | 19.0  |
| 2011-04-10 22:00 | 18.0  |
| 2011-04-10 23:00 | 26.0  |
| 2011-04-11 00:00 | 32.0  |
| 2011-04-11 01:00 | 40.0  |
| 2011-04-11 02:00 | 42.0  |
| 2011-04-11 03:00 | 49.0  |
| 2011-04-11 04:00 | 51.0  |
| 2011-04-11 05:00 | 55.0  |
| 2011-04-11 06:00 | 58.0  |
| 2011-04-11 07:00 | 63.0  |
| 2011-04-11 08:00 | 77.0  |
| 2011-04-11 09:00 | 89.0  |
| 2011-04-11 10:00 | 103.0 |
| 2011-04-11 11:00 | 122.0 |
| 2011-04-11 12:00 | 138.0 |
| 2011-04-11 13:00 | 148.0 |
| 2011-04-11 14:00 | 153.0 |
| 2011-04-11 15:00 | 156.0 |
| 2011-04-11 16:00 | 158.0 |
| 2011-04-11 17:00 | 162.0 |
| 2011-04-11 18:00 | 163.0 |
| 2011-04-11 19:00 | 164.0 |
| 2011-04-11 20:00 | 164.0 |
| 2011-04-11 21:00 | 164.0 |
| 2011-04-11 22:00 | 163.0 |
| 2011-04-11 23:00 | 163.0 |
| 2011-04-12 00:00 | 164.0 |
| 2011-04-12 01:00 | 128.0 |
| 2011-04-12 02:00 | 126.0 |
| 2011-04-12 03:00 | 124.0 |
| 2011-04-12 04:00 | 121.0 |
| 2011-04-12 05:00 | 121.0 |
| 2011-04-12 06:00 | 120.0 |
| 2011-04-12 07:00 | 117.0 |
| 2011-04-12 08:00 | 116.0 |
| 2011-04-12 09:00 | 114.0 |
| 2011-04-12 10:00 | 111.0 |
| 2011-04-12 11:00 | 108.0 |
| 2011-04-12 12:00 | 99.0  |
| 2011-04-12 13:00 | 89.0  |
| 2011-04-12 14:00 | 87.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-04-12 15:00 | 86.0  |
| 2011-04-12 16:00 | 83.0  |
| 2011-04-12 17:00 | 90.0  |
| 2011-04-12 18:00 | 93.0  |
| 2011-04-12 19:00 | 97.0  |
| 2011-04-12 20:00 | 85.0  |
| 2011-04-12 21:00 | 78.0  |
| 2011-04-12 22:00 | 68.0  |
| 2011-04-12 23:00 | 61.0  |
| 2011-04-13 00:00 | 58.0  |
| 2011-04-13 01:00 | 34.0  |
| 2011-04-13 02:00 | 30.0  |
| 2011-04-13 03:00 | 27.0  |
| 2011-04-13 04:00 | 20.0  |
| 2011-04-13 05:00 | 15.0  |
| 2011-04-13 06:00 | 12.0  |
| 2011-04-13 07:00 | 12.0  |
| 2011-04-13 08:00 | 12.0  |
| 2011-04-13 09:00 | 11.0  |
| 2011-04-13 10:00 | 14.0  |
| 2011-04-13 11:00 | 16.0  |
| 2011-04-13 12:00 | 24.0  |
| 2011-04-13 13:00 | 30.0  |
| 2011-04-13 14:00 | 29.0  |
| 2011-04-13 15:00 | 29.0  |
| 2011-04-13 16:00 | 32.0  |
| 2011-04-13 17:00 | 38.0  |
| 2011-04-13 18:00 | 40.0  |
| 2011-04-13 19:00 | 42.0  |
| 2011-04-13 20:00 | 43.0  |
| 2011-04-13 21:00 | 45.0  |
| 2011-04-13 22:00 | 46.0  |
| 2011-04-13 23:00 | 54.0  |
| 2011-04-14 00:00 | 67.0  |
| 2011-04-14 01:00 | 151.0 |
| 2011-04-14 02:00 | 152.0 |
| 2011-04-14 03:00 | 154.0 |
| 2011-04-14 04:00 | 150.0 |
| 2011-04-14 05:00 | 153.0 |
| 2011-04-14 06:00 | 148.0 |
| 2011-04-14 07:00 | 141.0 |
| 2011-04-14 08:00 | 141.0 |
| 2011-04-14 09:00 | 136.0 |
| 2011-04-14 10:00 | 131.0 |
| 2011-04-14 11:00 | 128.0 |
| 2011-04-14 12:00 | 125.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-04-14 13:00 | 120.0 |
| 2011-04-14 14:00 | 103.0 |
| 2011-04-14 15:00 | 78.0  |
| 2011-04-14 16:00 | 63.0  |
| 2011-04-14 17:00 | 53.0  |
| 2011-04-14 18:00 | 40.0  |
| 2011-04-14 19:00 | 34.0  |
| 2011-04-14 20:00 | 25.0  |
| 2011-04-14 21:00 | 23.0  |
| 2011-04-14 22:00 | 24.0  |
| 2011-04-14 23:00 | 21.0  |
| 2011-04-15 00:00 | 21.0  |
| 2011-04-15 01:00 | 13.0  |
| 2011-04-15 02:00 | 32.0  |
| 2011-04-15 03:00 | 60.0  |
| 2011-04-15 04:00 | 102.0 |
| 2011-04-15 05:00 | 86.0  |
| 2011-04-15 06:00 | 80.0  |
| 2011-04-15 07:00 | 68.0  |
| 2011-04-15 08:00 | 80.0  |
| 2011-04-15 09:00 | 96.0  |
| 2011-04-15 10:00 | 108.0 |
| 2011-04-15 11:00 | 127.0 |
| 2011-04-15 12:00 | 133.0 |
| 2011-04-15 13:00 | 143.0 |
| 2011-04-15 14:00 | 142.0 |
| 2011-04-15 15:00 | 140.0 |
| 2011-04-15 16:00 | 142.0 |
| 2011-04-15 17:00 | 134.0 |
| 2011-04-15 18:00 | 127.0 |
| 2011-04-15 19:00 | 119.0 |
| 2011-04-15 20:00 | 94.0  |
| 2011-04-15 21:00 | 72.0  |
| 2011-04-15 22:00 | 53.0  |
| 2011-04-15 23:00 | 50.0  |
| 2011-04-16 00:00 | 44.0  |
| 2011-04-16 01:00 | 29.0  |
| 2011-04-16 02:00 | 24.0  |
| 2011-04-16 03:00 | 22.0  |
| 2011-04-16 04:00 | 20.0  |
| 2011-04-16 05:00 | 18.0  |
| 2011-04-16 06:00 | 16.0  |
| 2011-04-16 07:00 | 14.0  |
| 2011-04-16 08:00 | 14.0  |
| 2011-04-16 09:00 | 14.0  |
| 2011-04-16 10:00 | 14.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-04-16 11:00 | 15.0  |
| 2011-04-16 12:00 | 15.0  |
| 2011-04-16 13:00 | 14.0  |
| 2011-04-16 14:00 | 15.0  |
| 2011-04-16 15:00 | 16.0  |
| 2011-04-16 16:00 | 16.0  |
| 2011-04-16 17:00 | 16.0  |
| 2011-04-16 18:00 | 16.0  |
| 2011-04-16 19:00 | 16.0  |
| 2011-04-16 20:00 | 21.0  |
| 2011-04-16 21:00 | 26.0  |
| 2011-04-16 22:00 | 34.0  |
| 2011-04-16 23:00 | 45.0  |
| 2011-04-17 00:00 | 53.0  |
| 2011-04-17 01:00 | 63.0  |
| 2011-04-17 02:00 | 67.0  |
| 2011-04-17 03:00 | 72.0  |
| 2011-04-17 04:00 | 77.0  |
| 2011-04-17 05:00 | 81.0  |
| 2011-04-17 06:00 | 89.0  |
| 2011-04-17 07:00 | 98.0  |
| 2011-04-17 08:00 | 115.0 |
| 2011-04-17 09:00 | 137.0 |
| 2011-04-17 10:00 | 149.0 |
| 2011-04-17 11:00 | 162.0 |
| 2011-04-17 12:00 | 166.0 |
| 2011-04-17 13:00 | 170.0 |
| 2011-04-17 14:00 | 171.0 |
| 2011-04-17 15:00 | 172.0 |
| 2011-04-17 16:00 | 172.0 |
| 2011-04-17 17:00 | 172.0 |
| 2011-04-17 18:00 | 172.0 |
| 2011-04-17 19:00 | 172.0 |
| 2011-04-17 20:00 | 172.0 |
| 2011-04-17 21:00 | 172.0 |
| 2011-04-17 22:00 | 171.0 |
| 2011-04-17 23:00 | 170.0 |
| 2011-04-18 00:00 | 164.0 |
| 2011-04-18 01:00 | 100.0 |
| 2011-04-18 02:00 | 94.0  |
| 2011-04-18 03:00 | 87.0  |
| 2011-04-18 04:00 | 77.0  |
| 2011-04-18 05:00 | 72.0  |
| 2011-04-18 06:00 | 72.0  |
| 2011-04-18 07:00 | 64.0  |
| 2011-04-18 08:00 | 84.0  |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-04-18 09:00 | 102.0 |
| 2011-04-18 10:00 | 128.0 |
| 2011-04-18 11:00 | 140.0 |
| 2011-04-18 12:00 | 150.0 |
| 2011-04-18 13:00 | 157.0 |
| 2011-04-18 14:00 | 161.0 |
| 2011-04-18 15:00 | 164.0 |
| 2011-04-18 16:00 | 167.0 |
| 2011-04-18 17:00 | 162.0 |
| 2011-04-18 18:00 | 151.0 |
| 2011-04-18 19:00 | 137.0 |
| 2011-04-18 20:00 | 110.0 |
| 2011-04-18 21:00 | 85.0  |
| 2011-04-18 22:00 | 64.0  |
| 2011-04-18 23:00 | 69.0  |
| 2011-04-19 00:00 | 73.0  |
| 2011-04-19 01:00 | 24.0  |
| 2011-04-19 02:00 | 23.0  |
| 2011-04-19 03:00 | 22.0  |
| 2011-04-19 04:00 | 20.0  |
| 2011-04-19 05:00 | 17.0  |
| 2011-04-19 06:00 | 13.0  |
| 2011-04-19 07:00 | 14.0  |
| 2011-04-19 08:00 | 16.0  |
| 2011-04-19 09:00 | 23.0  |
| 2011-04-19 10:00 | 29.0  |
| 2011-04-19 11:00 | 26.0  |
| 2011-04-19 12:00 | 20.0  |
| 2011-04-19 13:00 | 20.0  |
| 2011-04-19 14:00 | 18.0  |
| 2011-04-19 15:00 | 18.0  |
| 2011-04-19 16:00 | 16.0  |
| 2011-04-19 17:00 | 13.0  |
| 2011-04-19 18:00 | 14.0  |
| 2011-04-19 19:00 | 14.0  |
| 2011-04-19 20:00 | 14.0  |
| 2011-04-19 21:00 | 13.0  |
| 2011-04-19 22:00 | 17.0  |
| 2011-04-19 23:00 | 11.0  |
| 2011-04-20 00:00 | 10.0  |
| 2011-04-20 01:00 | 12.0  |
| 2011-04-20 02:00 | 15.0  |
| 2011-04-20 03:00 | 16.0  |
| 2011-04-20 04:00 | 22.0  |
| 2011-04-20 05:00 | 21.0  |
| 2011-04-20 06:00 | 20.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-04-20 07:00 | 18.0  |
| 2011-04-20 08:00 | 22.0  |
| 2011-04-20 09:00 | 26.0  |
| 2011-04-20 10:00 | 27.0  |
| 2011-04-20 11:00 | 26.0  |
| 2011-04-20 12:00 | 30.0  |
| 2011-04-20 13:00 | 32.0  |
| 2011-04-20 14:00 | 31.0  |
| 2011-04-20 15:00 | 30.0  |
| 2011-04-20 16:00 | 31.0  |
| 2011-04-20 17:00 | 34.0  |
| 2011-04-20 18:00 | 35.0  |
| 2011-04-20 19:00 | 40.0  |
| 2011-04-20 20:00 | 50.0  |
| 2011-04-20 21:00 | 60.0  |
| 2011-04-20 22:00 | 70.0  |
| 2011-04-20 23:00 | 70.0  |
| 2011-04-21 00:00 | 66.0  |
| 2011-04-21 01:00 | 70.0  |
| 2011-04-21 02:00 | 62.0  |
| 2011-04-21 03:00 | 56.0  |
| 2011-04-21 04:00 | 57.0  |
| 2011-04-21 05:00 | 40.0  |
| 2011-04-21 06:00 | 32.0  |
| 2011-04-21 07:00 | 30.0  |
| 2011-04-21 08:00 | 31.0  |
| 2011-04-21 09:00 | 34.0  |
| 2011-04-21 10:00 | 36.0  |
| 2011-04-21 11:00 | 40.0  |
| 2011-04-21 12:00 | 40.0  |
| 2011-04-21 13:00 | 44.0  |
| 2011-04-21 14:00 | 48.0  |
| 2011-04-21 15:00 | 54.0  |
| 2011-04-21 16:00 | 65.0  |
| 2011-04-21 17:00 | 72.0  |
| 2011-04-21 18:00 | 76.0  |
| 2011-04-21 19:00 | 81.0  |
| 2011-04-21 20:00 | 80.0  |
| 2011-04-21 21:00 | 78.0  |
| 2011-04-21 22:00 | 79.0  |
| 2011-04-21 23:00 | 91.0  |
| 2011-04-22 00:00 | 100.0 |
| 2011-04-22 01:00 | 95.0  |
| 2011-04-22 02:00 | 92.0  |
| 2011-04-22 03:00 | 87.0  |
| 2011-04-22 04:00 | 83.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-04-22 05:00 | 84.0  |
| 2011-04-22 06:00 | 88.0  |
| 2011-04-22 07:00 | 88.0  |
| 2011-04-22 08:00 | 93.0  |
| 2011-04-22 09:00 | 94.0  |
| 2011-04-22 10:00 | 91.0  |
| 2011-04-22 11:00 | 89.0  |
| 2011-04-22 12:00 | 88.0  |
| 2011-04-22 13:00 | 85.0  |
| 2011-04-22 14:00 | 87.0  |
| 2011-04-22 15:00 | 82.0  |
| 2011-04-22 16:00 | 82.0  |
| 2011-04-22 17:00 | 79.0  |
| 2011-04-22 18:00 | 75.0  |
| 2011-04-22 19:00 | 76.0  |
| 2011-04-22 20:00 | 63.0  |
| 2011-04-22 21:00 | 46.0  |
| 2011-04-22 22:00 | 34.0  |
| 2011-04-22 23:00 | 27.0  |
| 2011-04-23 00:00 | 23.0  |
| 2011-04-23 01:00 | 10.0  |
| 2011-04-23 02:00 | 9.0   |
| 2011-04-23 03:00 | 8.0   |
| 2011-04-23 04:00 | 8.0   |
| 2011-04-23 05:00 | 8.0   |
| 2011-04-23 06:00 | 8.0   |
| 2011-04-23 07:00 | 8.0   |
| 2011-04-23 08:00 | 9.0   |
| 2011-04-23 09:00 | 10.0  |
| 2011-04-23 10:00 | 11.0  |
| 2011-04-23 11:00 | 17.0  |
| 2011-04-23 12:00 | 24.0  |
| 2011-04-23 13:00 | 34.0  |
| 2011-04-23 14:00 | 42.0  |
| 2011-04-23 15:00 | 61.0  |
| 2011-04-23 16:00 | 79.0  |
| 2011-04-23 17:00 | 85.0  |
| 2011-04-23 18:00 | 94.0  |
| 2011-04-23 19:00 | 98.0  |
| 2011-04-23 20:00 | 102.0 |
| 2011-04-23 21:00 | 104.0 |
| 2011-04-23 22:00 | 108.0 |
| 2011-04-23 23:00 | 138.0 |
| 2011-04-24 00:00 | 158.0 |
| 2011-04-24 01:00 | 170.0 |
| 2011-04-24 02:00 | 172.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-04-24 03:00 | 172.0 |
| 2011-04-24 04:00 | 172.0 |
| 2011-04-24 05:00 | 172.0 |
| 2011-04-24 06:00 | 172.0 |
| 2011-04-24 07:00 | 171.0 |
| 2011-04-24 08:00 | 166.0 |
| 2011-04-24 09:00 | 154.0 |
| 2011-04-24 10:00 | 125.0 |
| 2011-04-24 11:00 | 118.0 |
| 2011-04-24 12:00 | 100.0 |
| 2011-04-24 13:00 | 83.0  |
| 2011-04-24 14:00 | 79.0  |
| 2011-04-24 15:00 | 68.0  |
| 2011-04-24 16:00 | 62.0  |
| 2011-04-24 17:00 | 55.0  |
| 2011-04-24 18:00 | 47.0  |
| 2011-04-24 19:00 | 44.0  |
| 2011-04-24 20:00 | 27.0  |
| 2011-04-24 21:00 | 15.0  |
| 2011-04-24 22:00 | 9.0   |
| 2011-04-24 23:00 | 7.0   |
| 2011-04-25 00:00 | 3.0   |
| 2011-04-25 01:00 | 4.0   |
| 2011-04-25 02:00 | 2.0   |
| 2011-04-25 03:00 | 2.0   |
| 2011-04-25 04:00 | 4.0   |
| 2011-04-25 05:00 | 2.0   |
| 2011-04-25 06:00 | 2.0   |
| 2011-04-25 07:00 | 0.0   |
| 2011-04-25 08:00 | 0.0   |
| 2011-04-25 09:00 | 0.0   |
| 2011-04-25 10:00 | 0.0   |
| 2011-04-25 11:00 | 0.0   |
| 2011-04-25 12:00 | 0.0   |
| 2011-04-25 13:00 | 1.0   |
| 2011-04-25 14:00 | 1.0   |
| 2011-04-25 15:00 | 2.0   |
| 2011-04-25 16:00 | 3.0   |
| 2011-04-25 17:00 | 5.0   |
| 2011-04-25 18:00 | 8.0   |
| 2011-04-25 19:00 | 14.0  |
| 2011-04-25 20:00 | 11.0  |
| 2011-04-25 21:00 | 10.0  |
| 2011-04-25 22:00 | 10.0  |
| 2011-04-25 23:00 | 12.0  |
| 2011-04-26 00:00 | 15.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-04-26 01:00 | 12.0 |
| 2011-04-26 02:00 | 12.0 |
| 2011-04-26 03:00 | 15.0 |
| 2011-04-26 04:00 | 16.0 |
| 2011-04-26 05:00 | 16.0 |
| 2011-04-26 06:00 | 13.0 |
| 2011-04-26 07:00 | 13.0 |
| 2011-04-26 08:00 | 11.0 |
| 2011-04-26 09:00 | 11.0 |
| 2011-04-26 10:00 | 10.0 |
| 2011-04-26 11:00 | 12.0 |
| 2011-04-26 12:00 | 17.0 |
| 2011-04-26 13:00 | 23.0 |
| 2011-04-26 14:00 | 24.0 |
| 2011-04-26 15:00 | 25.0 |
| 2011-04-26 16:00 | 26.0 |
| 2011-04-26 17:00 | 18.0 |
| 2011-04-26 18:00 | 15.0 |
| 2011-04-26 19:00 | 10.0 |
| 2011-04-26 20:00 | 8.0  |
| 2011-04-26 21:00 | 10.0 |
| 2011-04-26 22:00 | 11.0 |
| 2011-04-26 23:00 | 15.0 |
| 2011-04-27 00:00 | 21.0 |
| 2011-04-27 01:00 | 11.0 |
| 2011-04-27 02:00 | 12.0 |
| 2011-04-27 03:00 | 14.0 |
| 2011-04-27 04:00 | 17.0 |
| 2011-04-27 05:00 | 18.0 |
| 2011-04-27 06:00 | 17.0 |
| 2011-04-27 07:00 | 17.0 |
| 2011-04-27 08:00 | 19.0 |
| 2011-04-27 09:00 | 18.0 |
| 2011-04-27 10:00 | 25.0 |
| 2011-04-27 11:00 | 29.0 |
| 2011-04-27 12:00 | 38.0 |
| 2011-04-27 13:00 | 44.0 |
| 2011-04-27 14:00 | 26.0 |
| 2011-04-27 15:00 | 13.0 |
| 2011-04-27 16:00 | 12.0 |
| 2011-04-27 17:00 | 10.0 |
| 2011-04-27 18:00 | 11.0 |
| 2011-04-27 19:00 | 11.0 |
| 2011-04-27 20:00 | 13.0 |
| 2011-04-27 21:00 | 13.0 |
| 2011-04-27 22:00 | 12.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-04-27 23:00 | 14.0  |
| 2011-04-28 00:00 | 15.0  |
| 2011-04-28 01:00 | 6.0   |
| 2011-04-28 02:00 | 7.0   |
| 2011-04-28 03:00 | 6.0   |
| 2011-04-28 04:00 | 9.0   |
| 2011-04-28 05:00 | 13.0  |
| 2011-04-28 06:00 | 16.0  |
| 2011-04-28 07:00 | 27.0  |
| 2011-04-28 08:00 | 31.0  |
| 2011-04-28 09:00 | 43.0  |
| 2011-04-28 10:00 | 52.0  |
| 2011-04-28 11:00 | 49.0  |
| 2011-04-28 12:00 | 50.0  |
| 2011-04-28 13:00 | 51.0  |
| 2011-04-28 14:00 | 59.0  |
| 2011-04-28 15:00 | 68.0  |
| 2011-04-28 16:00 | 80.0  |
| 2011-04-28 17:00 | 83.0  |
| 2011-04-28 18:00 | 86.0  |
| 2011-04-28 19:00 | 91.0  |
| 2011-04-28 20:00 | 91.0  |
| 2011-04-28 21:00 | 99.0  |
| 2011-04-28 22:00 | 105.0 |
| 2011-04-28 23:00 | 126.0 |
| 2011-04-29 00:00 | 153.0 |
| 2011-04-29 01:00 | 164.0 |
| 2011-04-29 02:00 | 162.0 |
| 2011-04-29 03:00 | 162.0 |
| 2011-04-29 04:00 | 160.0 |
| 2011-04-29 05:00 | 156.0 |
| 2011-04-29 06:00 | 154.0 |
| 2011-04-29 07:00 | 146.0 |
| 2011-04-29 08:00 | 152.0 |
| 2011-04-29 09:00 | 153.0 |
| 2011-04-29 10:00 | 148.0 |
| 2011-04-29 11:00 | 144.0 |
| 2011-04-29 12:00 | 141.0 |
| 2011-04-29 13:00 | 135.0 |
| 2011-04-29 14:00 | 112.0 |
| 2011-04-29 15:00 | 88.0  |
| 2011-04-29 16:00 | 68.0  |
| 2011-04-29 17:00 | 59.0  |
| 2011-04-29 18:00 | 56.0  |
| 2011-04-29 19:00 | 49.0  |
| 2011-04-29 20:00 | 42.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-04-29 21:00 | 32.0  |
| 2011-04-29 22:00 | 25.0  |
| 2011-04-29 23:00 | 20.0  |
| 2011-04-30 00:00 | 19.0  |
| 2011-04-30 01:00 | 15.0  |
| 2011-04-30 02:00 | 12.0  |
| 2011-04-30 03:00 | 9.0   |
| 2011-04-30 04:00 | 5.0   |
| 2011-04-30 05:00 | 3.0   |
| 2011-04-30 06:00 | 1.0   |
| 2011-04-30 07:00 | 0.0   |
| 2011-04-30 08:00 | 0.0   |
| 2011-04-30 09:00 | 3.0   |
| 2011-04-30 10:00 | 6.0   |
| 2011-04-30 11:00 | 16.0  |
| 2011-04-30 12:00 | 28.0  |
| 2011-04-30 13:00 | 50.0  |
| 2011-04-30 14:00 | 67.0  |
| 2011-04-30 15:00 | 89.0  |
| 2011-04-30 16:00 | 111.0 |
| 2011-04-30 17:00 | 109.0 |
| 2011-04-30 18:00 | 106.0 |
| 2011-04-30 19:00 | 102.0 |
| 2011-04-30 20:00 | 103.0 |
| 2011-04-30 21:00 | 102.0 |
| 2011-04-30 22:00 | 103.0 |
| 2011-04-30 23:00 | 99.0  |
| 2011-05-01 00:00 | 98.0  |
| 2011-05-01 01:00 | 122.0 |
| 2011-05-01 02:00 | 120.0 |
| 2011-05-01 03:00 | 119.0 |
| 2011-05-01 04:00 | 120.0 |
| 2011-05-01 05:00 | 115.0 |
| 2011-05-01 06:00 | 115.0 |
| 2011-05-01 07:00 | 109.0 |
| 2011-05-01 08:00 | 112.0 |
| 2011-05-01 09:00 | 115.0 |
| 2011-05-01 10:00 | 116.0 |
| 2011-05-01 11:00 | 110.0 |
| 2011-05-01 12:00 | 104.0 |
| 2011-05-01 13:00 | 98.0  |
| 2011-05-01 14:00 | 95.0  |
| 2011-05-01 15:00 | 88.0  |
| 2011-05-01 16:00 | 86.0  |
| 2011-05-01 17:00 | 83.0  |
| 2011-05-01 18:00 | 81.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-05-01 19:00 | 73.0  |
| 2011-05-01 20:00 | 64.0  |
| 2011-05-01 21:00 | 52.0  |
| 2011-05-01 22:00 | 49.0  |
| 2011-05-01 23:00 | 42.0  |
| 2011-05-02 00:00 | 33.0  |
| 2011-05-02 01:00 | 53.0  |
| 2011-05-02 02:00 | 53.0  |
| 2011-05-02 03:00 | 53.0  |
| 2011-05-02 04:00 | 52.0  |
| 2011-05-02 05:00 | 49.0  |
| 2011-05-02 06:00 | 49.0  |
| 2011-05-02 07:00 | 47.0  |
| 2011-05-02 08:00 | 55.0  |
| 2011-05-02 09:00 | 62.0  |
| 2011-05-02 10:00 | 74.0  |
| 2011-05-02 11:00 | 82.0  |
| 2011-05-02 12:00 | 94.0  |
| 2011-05-02 13:00 | 107.0 |
| 2011-05-02 14:00 | 105.0 |
| 2011-05-02 15:00 | 101.0 |
| 2011-05-02 16:00 | 98.0  |
| 2011-05-02 17:00 | 81.0  |
| 2011-05-02 18:00 | 70.0  |
| 2011-05-02 19:00 | 59.0  |
| 2011-05-02 20:00 | 47.0  |
| 2011-05-02 21:00 | 37.0  |
| 2011-05-02 22:00 | 33.0  |
| 2011-05-02 23:00 | 34.0  |
| 2011-05-03 00:00 | 32.0  |
| 2011-05-03 01:00 | 42.0  |
| 2011-05-03 02:00 | 31.0  |
| 2011-05-03 03:00 | 24.0  |
| 2011-05-03 04:00 | 18.0  |
| 2011-05-03 05:00 | 17.0  |
| 2011-05-03 06:00 | 14.0  |
| 2011-05-03 07:00 | 12.0  |
| 2011-05-03 08:00 | 13.0  |
| 2011-05-03 09:00 | 13.0  |
| 2011-05-03 10:00 | 15.0  |
| 2011-05-03 11:00 | 14.0  |
| 2011-05-03 12:00 | 14.0  |
| 2011-05-03 13:00 | 12.0  |
| 2011-05-03 14:00 | 13.0  |
| 2011-05-03 15:00 | 13.0  |
| 2011-05-03 16:00 | 18.0  |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-05-03 17:00 | 14.0  |
| 2011-05-03 18:00 | 13.0  |
| 2011-05-03 19:00 | 17.0  |
| 2011-05-03 20:00 | 15.0  |
| 2011-05-03 21:00 | 14.0  |
| 2011-05-03 22:00 | 15.0  |
| 2011-05-03 23:00 | 16.0  |
| 2011-05-04 00:00 | 20.0  |
| 2011-05-04 01:00 | 24.0  |
| 2011-05-04 02:00 | 22.0  |
| 2011-05-04 03:00 | 21.0  |
| 2011-05-04 04:00 | 17.0  |
| 2011-05-04 05:00 | 23.0  |
| 2011-05-04 06:00 | 25.0  |
| 2011-05-04 07:00 | 28.0  |
| 2011-05-04 08:00 | 32.0  |
| 2011-05-04 09:00 | 32.0  |
| 2011-05-04 10:00 | 36.0  |
| 2011-05-04 11:00 | 51.0  |
| 2011-05-04 12:00 | 65.0  |
| 2011-05-04 13:00 | 82.0  |
| 2011-05-04 14:00 | 100.0 |
| 2011-05-04 15:00 | 105.0 |
| 2011-05-04 16:00 | 120.0 |
| 2011-05-04 17:00 | 120.0 |
| 2011-05-04 18:00 | 118.0 |
| 2011-05-04 19:00 | 110.0 |
| 2011-05-04 20:00 | 109.0 |
| 2011-05-04 21:00 | 102.0 |
| 2011-05-04 22:00 | 103.0 |
| 2011-05-04 23:00 | 101.0 |
| 2011-05-05 00:00 | 100.0 |
| 2011-05-05 01:00 | 125.0 |
| 2011-05-05 02:00 | 121.0 |
| 2011-05-05 03:00 | 120.0 |
| 2011-05-05 04:00 | 120.0 |
| 2011-05-05 05:00 | 103.0 |
| 2011-05-05 06:00 | 87.0  |
| 2011-05-05 07:00 | 71.0  |
| 2011-05-05 08:00 | 65.0  |
| 2011-05-05 09:00 | 60.0  |
| 2011-05-05 10:00 | 54.0  |
| 2011-05-05 11:00 | 49.0  |
| 2011-05-05 12:00 | 45.0  |
| 2011-05-05 13:00 | 42.0  |
| 2011-05-05 14:00 | 41.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-05-05 15:00 | 38.0  |
| 2011-05-05 16:00 | 37.0  |
| 2011-05-05 17:00 | 36.0  |
| 2011-05-05 18:00 | 37.0  |
| 2011-05-05 19:00 | 40.0  |
| 2011-05-05 20:00 | 40.0  |
| 2011-05-05 21:00 | 37.0  |
| 2011-05-05 22:00 | 38.0  |
| 2011-05-05 23:00 | 35.0  |
| 2011-05-06 00:00 | 36.0  |
| 2011-05-06 01:00 | 90.0  |
| 2011-05-06 02:00 | 85.0  |
| 2011-05-06 03:00 | 77.0  |
| 2011-05-06 04:00 | 66.0  |
| 2011-05-06 05:00 | 63.0  |
| 2011-05-06 06:00 | 61.0  |
| 2011-05-06 07:00 | 62.0  |
| 2011-05-06 08:00 | 71.0  |
| 2011-05-06 09:00 | 75.0  |
| 2011-05-06 10:00 | 85.0  |
| 2011-05-06 11:00 | 98.0  |
| 2011-05-06 12:00 | 119.0 |
| 2011-05-06 13:00 | 132.0 |
| 2011-05-06 14:00 | 139.0 |
| 2011-05-06 15:00 | 151.0 |
| 2011-05-06 16:00 | 159.0 |
| 2011-05-06 17:00 | 148.0 |
| 2011-05-06 18:00 | 148.0 |
| 2011-05-06 19:00 | 143.0 |
| 2011-05-06 20:00 | 113.0 |
| 2011-05-06 21:00 | 86.0  |
| 2011-05-06 22:00 | 67.0  |
| 2011-05-06 23:00 | 72.0  |
| 2011-05-07 00:00 | 80.0  |
| 2011-05-07 01:00 | 84.0  |
| 2011-05-07 02:00 | 84.0  |
| 2011-05-07 03:00 | 74.0  |
| 2011-05-07 04:00 | 74.0  |
| 2011-05-07 05:00 | 68.0  |
| 2011-05-07 06:00 | 70.0  |
| 2011-05-07 07:00 | 65.0  |
| 2011-05-07 08:00 | 69.0  |
| 2011-05-07 09:00 | 77.0  |
| 2011-05-07 10:00 | 82.0  |
| 2011-05-07 11:00 | 102.0 |
| 2011-05-07 12:00 | 118.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-05-07 13:00 | 130.0 |
| 2011-05-07 14:00 | 136.0 |
| 2011-05-07 15:00 | 153.0 |
| 2011-05-07 16:00 | 151.0 |
| 2011-05-07 17:00 | 153.0 |
| 2011-05-07 18:00 | 160.0 |
| 2011-05-07 19:00 | 162.0 |
| 2011-05-07 20:00 | 132.0 |
| 2011-05-07 21:00 | 109.0 |
| 2011-05-07 22:00 | 85.0  |
| 2011-05-07 23:00 | 74.0  |
| 2011-05-08 00:00 | 60.0  |
| 2011-05-08 01:00 | 88.0  |
| 2011-05-08 02:00 | 78.0  |
| 2011-05-08 03:00 | 73.0  |
| 2011-05-08 04:00 | 70.0  |
| 2011-05-08 05:00 | 61.0  |
| 2011-05-08 06:00 | 45.0  |
| 2011-05-08 07:00 | 39.0  |
| 2011-05-08 08:00 | 37.0  |
| 2011-05-08 09:00 | 31.0  |
| 2011-05-08 10:00 | 32.0  |
| 2011-05-08 11:00 | 30.0  |
| 2011-05-08 12:00 | 26.0  |
| 2011-05-08 13:00 | 27.0  |
| 2011-05-08 14:00 | 24.0  |
| 2011-05-08 15:00 | 26.0  |
| 2011-05-08 16:00 | 28.0  |
| 2011-05-08 17:00 | 34.0  |
| 2011-05-08 18:00 | 46.0  |
| 2011-05-08 19:00 | 60.0  |
| 2011-05-08 20:00 | 54.0  |
| 2011-05-08 21:00 | 49.0  |
| 2011-05-08 22:00 | 43.0  |
| 2011-05-08 23:00 | 44.0  |
| 2011-05-09 00:00 | 45.0  |
| 2011-05-09 01:00 | 54.0  |
| 2011-05-09 02:00 | 65.0  |
| 2011-05-09 03:00 | 78.0  |
| 2011-05-09 04:00 | 82.0  |
| 2011-05-09 05:00 | 86.0  |
| 2011-05-09 06:00 | 89.0  |
| 2011-05-09 07:00 | 96.0  |
| 2011-05-09 08:00 | 99.0  |
| 2011-05-09 09:00 | 101.0 |
| 2011-05-09 10:00 | 106.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-05-09 11:00 | 106.0 |
| 2011-05-09 12:00 | 107.0 |
| 2011-05-09 13:00 | 110.0 |
| 2011-05-09 14:00 | 125.0 |
| 2011-05-09 15:00 | 132.0 |
| 2011-05-09 16:00 | 149.0 |
| 2011-05-09 17:00 | 150.0 |
| 2011-05-09 18:00 | 150.0 |
| 2011-05-09 19:00 | 158.0 |
| 2011-05-09 20:00 | 150.0 |
| 2011-05-09 21:00 | 147.0 |
| 2011-05-09 22:00 | 138.0 |
| 2011-05-09 23:00 | 138.0 |
| 2011-05-10 00:00 | 138.0 |
| 2011-05-10 01:00 | 116.0 |
| 2011-05-10 02:00 | 115.0 |
| 2011-05-10 03:00 | 113.0 |
| 2011-05-10 04:00 | 113.0 |
| 2011-05-10 05:00 | 112.0 |
| 2011-05-10 06:00 | 113.0 |
| 2011-05-10 07:00 | 111.0 |
| 2011-05-10 08:00 | 115.0 |
| 2011-05-10 09:00 | 120.0 |
| 2011-05-10 10:00 | 129.0 |
| 2011-05-10 11:00 | 134.0 |
| 2011-05-10 12:00 | 148.0 |
| 2011-05-10 13:00 | 154.0 |
| 2011-05-10 14:00 | 160.0 |
| 2011-05-10 15:00 | 171.0 |
| 2011-05-10 16:00 | 180.0 |
| 2011-05-10 17:00 | 180.0 |
| 2011-05-10 18:00 | 180.0 |
| 2011-05-10 19:00 | 180.0 |
| 2011-05-10 20:00 | 171.0 |
| 2011-05-10 21:00 | 159.0 |
| 2011-05-10 22:00 | 157.0 |
| 2011-05-10 23:00 | 150.0 |
| 2011-05-11 00:00 | 142.0 |
| 2011-05-11 01:00 | 143.0 |
| 2011-05-11 02:00 | 140.0 |
| 2011-05-11 03:00 | 145.0 |
| 2011-05-11 04:00 | 145.0 |
| 2011-05-11 05:00 | 151.0 |
| 2011-05-11 06:00 | 154.0 |
| 2011-05-11 07:00 | 161.0 |
| 2011-05-11 08:00 | 168.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-05-11 09:00 | 182.0 |
| 2011-05-11 10:00 | 183.0 |
| 2011-05-11 11:00 | 192.0 |
| 2011-05-11 12:00 | 194.0 |
| 2011-05-11 13:00 | 200.0 |
| 2011-05-11 14:00 | 196.0 |
| 2011-05-11 15:00 | 186.0 |
| 2011-05-11 16:00 | 182.0 |
| 2011-05-11 17:00 | 177.0 |
| 2011-05-11 18:00 | 172.0 |
| 2011-05-11 19:00 | 167.0 |
| 2011-05-11 20:00 | 164.0 |
| 2011-05-11 21:00 | 160.0 |
| 2011-05-11 22:00 | 157.0 |
| 2011-05-11 23:00 | 165.0 |
| 2011-05-12 00:00 | 180.0 |
| 2011-05-12 01:00 | 151.0 |
| 2011-05-12 02:00 | 148.0 |
| 2011-05-12 03:00 | 140.0 |
| 2011-05-12 04:00 | 130.0 |
| 2011-05-12 05:00 | 130.0 |
| 2011-05-12 06:00 | 127.0 |
| 2011-05-12 07:00 | 129.0 |
| 2011-05-12 08:00 | 128.0 |
| 2011-05-12 09:00 | 133.0 |
| 2011-05-12 10:00 | 132.0 |
| 2011-05-12 11:00 | 138.0 |
| 2011-05-12 12:00 | 143.0 |
| 2011-05-12 13:00 | 146.0 |
| 2011-05-12 14:00 | 131.0 |
| 2011-05-12 15:00 | 109.0 |
| 2011-05-12 16:00 | 99.0  |
| 2011-05-12 17:00 | 83.0  |
| 2011-05-12 18:00 | 68.0  |
| 2011-05-12 19:00 | 61.0  |
| 2011-05-12 20:00 | 59.0  |
| 2011-05-12 21:00 | 60.0  |
| 2011-05-12 22:00 | 53.0  |
| 2011-05-12 23:00 | 55.0  |
| 2011-05-13 00:00 | 53.0  |
| 2011-05-13 01:00 | 59.0  |
| 2011-05-13 02:00 | 55.0  |
| 2011-05-13 03:00 | 45.0  |
| 2011-05-13 04:00 | 38.0  |
| 2011-05-13 05:00 | 36.0  |
| 2011-05-13 06:00 | 31.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-05-13 07:00 | 24.0 |
| 2011-05-13 08:00 | 25.0 |
| 2011-05-13 09:00 | 32.0 |
| 2011-05-13 10:00 | 36.0 |
| 2011-05-13 11:00 | 32.0 |
| 2011-05-13 12:00 | 32.0 |
| 2011-05-13 13:00 | 33.0 |
| 2011-05-13 14:00 | 37.0 |
| 2011-05-13 15:00 | 42.0 |
| 2011-05-13 16:00 | 47.0 |
| 2011-05-13 17:00 | 47.0 |
| 2011-05-13 18:00 | 45.0 |
| 2011-05-13 19:00 | 46.0 |
| 2011-05-13 20:00 | 38.0 |
| 2011-05-13 21:00 | 31.0 |
| 2011-05-13 22:00 | 26.0 |
| 2011-05-13 23:00 | 26.0 |
| 2011-05-14 00:00 | 26.0 |
| 2011-05-14 01:00 | 12.0 |
| 2011-05-14 02:00 | 10.0 |
| 2011-05-14 03:00 | 9.0  |
| 2011-05-14 04:00 | 9.0  |
| 2011-05-14 05:00 | 10.0 |
| 2011-05-14 06:00 | 10.0 |
| 2011-05-14 07:00 | 10.0 |
| 2011-05-14 08:00 | 11.0 |
| 2011-05-14 09:00 | 12.0 |
| 2011-05-14 10:00 | 11.0 |
| 2011-05-14 11:00 | 11.0 |
| 2011-05-14 12:00 | 12.0 |
| 2011-05-14 13:00 | 13.0 |
| 2011-05-14 14:00 | 13.0 |
| 2011-05-14 15:00 | 12.0 |
| 2011-05-14 16:00 | 13.0 |
| 2011-05-14 17:00 | 10.0 |
| 2011-05-14 18:00 | 9.0  |
| 2011-05-14 19:00 | 8.0  |
| 2011-05-14 20:00 | 5.0  |
| 2011-05-14 21:00 | 4.0  |
| 2011-05-14 22:00 | 4.0  |
| 2011-05-14 23:00 | 2.0  |
| 2011-05-15 00:00 | 2.0  |
| 2011-05-15 01:00 | 2.0  |
| 2011-05-15 02:00 | 3.0  |
| 2011-05-15 03:00 | 2.0  |
| 2011-05-15 04:00 | 2.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-05-15 05:00 | 2.0  |
| 2011-05-15 06:00 | 3.0  |
| 2011-05-15 07:00 | 3.0  |
| 2011-05-15 08:00 | 4.0  |
| 2011-05-15 09:00 | 7.0  |
| 2011-05-15 10:00 | 8.0  |
| 2011-05-15 11:00 | 9.0  |
| 2011-05-15 12:00 | 11.0 |
| 2011-05-15 13:00 | 12.0 |
| 2011-05-15 14:00 | 11.0 |
| 2011-05-15 15:00 | 10.0 |
| 2011-05-15 16:00 | 8.0  |
| 2011-05-15 17:00 | 5.0  |
| 2011-05-15 18:00 | 4.0  |
| 2011-05-15 19:00 | 3.0  |
| 2011-05-15 20:00 | 3.0  |
| 2011-05-15 21:00 | 3.0  |
| 2011-05-15 22:00 | 3.0  |
| 2011-05-15 23:00 | 3.0  |
| 2011-05-16 00:00 | 3.0  |
| 2011-05-16 01:00 | 26.0 |
| 2011-05-16 02:00 | 33.0 |
| 2011-05-16 03:00 | 44.0 |
| 2011-05-16 04:00 | 60.0 |
| 2011-05-16 05:00 | 66.0 |
| 2011-05-16 06:00 | 74.0 |
| 2011-05-16 07:00 | 84.0 |
| 2011-05-16 08:00 | 79.0 |
| 2011-05-16 09:00 | 78.0 |
| 2011-05-16 10:00 | 76.0 |
| 2011-05-16 11:00 | 73.0 |
| 2011-05-16 12:00 | 66.0 |
| 2011-05-16 13:00 | 60.0 |
| 2011-05-16 14:00 | 58.0 |
| 2011-05-16 15:00 | 56.0 |
| 2011-05-16 16:00 | 53.0 |
| 2011-05-16 17:00 | 45.0 |
| 2011-05-16 18:00 | 43.0 |
| 2011-05-16 19:00 | 36.0 |
| 2011-05-16 20:00 | 30.0 |
| 2011-05-16 21:00 | 29.0 |
| 2011-05-16 22:00 | 27.0 |
| 2011-05-16 23:00 | 23.0 |
| 2011-05-17 00:00 | 22.0 |
| 2011-05-17 01:00 | 71.0 |
| 2011-05-17 02:00 | 59.0 |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-05-17 03:00 | 50.0 |
| 2011-05-17 04:00 | 44.0 |
| 2011-05-17 05:00 | 31.0 |
| 2011-05-17 06:00 | 23.0 |
| 2011-05-17 07:00 | 21.0 |
| 2011-05-17 08:00 | 21.0 |
| 2011-05-17 09:00 | 24.0 |
| 2011-05-17 10:00 | 27.0 |
| 2011-05-17 11:00 | 26.0 |
| 2011-05-17 12:00 | 28.0 |
| 2011-05-17 13:00 | 33.0 |
| 2011-05-17 14:00 | 36.0 |
| 2011-05-17 15:00 | 39.0 |
| 2011-05-17 16:00 | 46.0 |
| 2011-05-17 17:00 | 46.0 |
| 2011-05-17 18:00 | 46.0 |
| 2011-05-17 19:00 | 49.0 |
| 2011-05-17 20:00 | 44.0 |
| 2011-05-17 21:00 | 37.0 |
| 2011-05-17 22:00 | 34.0 |
| 2011-05-17 23:00 | 32.0 |
| 2011-05-18 00:00 | 27.0 |
| 2011-05-18 01:00 | 11.0 |
| 2011-05-18 02:00 | 10.0 |
| 2011-05-18 03:00 | 9.0  |
| 2011-05-18 04:00 | 8.0  |
| 2011-05-18 05:00 | 8.0  |
| 2011-05-18 06:00 | 8.0  |
| 2011-05-18 07:00 | 8.0  |
| 2011-05-18 08:00 | 10.0 |
| 2011-05-18 09:00 | 11.0 |
| 2011-05-18 10:00 | 11.0 |
| 2011-05-18 11:00 | 12.0 |
| 2011-05-18 12:00 | 16.0 |
| 2011-05-18 13:00 | 17.0 |
| 2011-05-18 14:00 | 17.0 |
| 2011-05-18 15:00 | 16.0 |
| 2011-05-18 16:00 | 16.0 |
| 2011-05-18 17:00 | 15.0 |
| 2011-05-18 18:00 | 14.0 |
| 2011-05-18 19:00 | 14.0 |
| 2011-05-18 20:00 | 11.0 |
| 2011-05-18 21:00 | 10.0 |
| 2011-05-18 22:00 | 9.0  |
| 2011-05-18 23:00 | 9.0  |
| 2011-05-19 00:00 | 7.0  |



## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-05-19 01:00 | 8.0  |
| 2011-05-19 02:00 | 9.0  |
| 2011-05-19 03:00 | 8.0  |
| 2011-05-19 04:00 | 8.0  |
| 2011-05-19 05:00 | 8.0  |
| 2011-05-19 06:00 | 6.0  |
| 2011-05-19 07:00 | 6.0  |
| 2011-05-19 08:00 | 7.0  |
| 2011-05-19 09:00 | 7.0  |
| 2011-05-19 10:00 | 10.0 |
| 2011-05-19 11:00 | 12.0 |
| 2011-05-19 12:00 | 14.0 |
| 2011-05-19 13:00 | 19.0 |
| 2011-05-19 14:00 | 22.0 |
| 2011-05-19 15:00 | 28.0 |
| 2011-05-19 16:00 | 33.0 |
| 2011-05-19 17:00 | 33.0 |
| 2011-05-19 18:00 | 35.0 |
| 2011-05-19 19:00 | 45.0 |
| 2011-05-19 20:00 | 33.0 |
| 2011-05-19 21:00 | 29.0 |
| 2011-05-19 22:00 | 25.0 |
| 2011-05-19 23:00 | 25.0 |
| 2011-05-20 00:00 | 27.0 |
| 2011-05-20 01:00 | 18.0 |
| 2011-05-20 02:00 | 16.0 |
| 2011-05-20 03:00 | 16.0 |
| 2011-05-20 04:00 | 11.0 |
| 2011-05-20 05:00 | 9.0  |
| 2011-05-20 06:00 | 6.0  |
| 2011-05-20 07:00 | 5.0  |
| 2011-05-20 08:00 | 6.0  |
| 2011-05-20 09:00 | 6.0  |
| 2011-05-20 10:00 | 5.0  |
| 2011-05-20 11:00 | 6.0  |
| 2011-05-20 12:00 | 9.0  |
| 2011-05-20 13:00 | 11.0 |
| 2011-05-20 14:00 | 18.0 |
| 2011-05-20 15:00 | 25.0 |
| 2011-05-20 16:00 | 33.0 |
| 2011-05-20 17:00 | 31.0 |
| 2011-05-20 18:00 | 30.0 |
| 2011-05-20 19:00 | 33.0 |
| 2011-05-20 20:00 | 31.0 |
| 2011-05-20 21:00 | 28.0 |
| 2011-05-20 22:00 | 25.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-05-20 23:00 | 27.0  |
| 2011-05-21 00:00 | 27.0  |
| 2011-05-21 01:00 | 15.0  |
| 2011-05-21 02:00 | 17.0  |
| 2011-05-21 03:00 | 17.0  |
| 2011-05-21 04:00 | 18.0  |
| 2011-05-21 05:00 | 13.0  |
| 2011-05-21 06:00 | 11.0  |
| 2011-05-21 07:00 | 11.0  |
| 2011-05-21 08:00 | 6.0   |
| 2011-05-21 09:00 | 5.0   |
| 2011-05-21 10:00 | 2.0   |
| 2011-05-21 11:00 | 8.0   |
| 2011-05-21 12:00 | 16.0  |
| 2011-05-21 13:00 | 33.0  |
| 2011-05-21 14:00 | 42.0  |
| 2011-05-21 15:00 | 59.0  |
| 2011-05-21 16:00 | 68.0  |
| 2011-05-21 17:00 | 82.0  |
| 2011-05-21 18:00 | 103.0 |
| 2011-05-21 19:00 | 110.0 |
| 2011-05-21 20:00 | 100.0 |
| 2011-05-21 21:00 | 91.0  |
| 2011-05-21 22:00 | 82.0  |
| 2011-05-21 23:00 | 84.0  |
| 2011-05-22 00:00 | 83.0  |
| 2011-05-22 01:00 | 75.0  |
| 2011-05-22 02:00 | 68.0  |
| 2011-05-22 03:00 | 62.0  |
| 2011-05-22 04:00 | 58.0  |
| 2011-05-22 05:00 | 58.0  |
| 2011-05-22 06:00 | 59.0  |
| 2011-05-22 07:00 | 60.0  |
| 2011-05-22 08:00 | 68.0  |
| 2011-05-22 09:00 | 80.0  |
| 2011-05-22 10:00 | 90.0  |
| 2011-05-22 11:00 | 87.0  |
| 2011-05-22 12:00 | 87.0  |
| 2011-05-22 13:00 | 86.0  |
| 2011-05-22 14:00 | 76.0  |
| 2011-05-22 15:00 | 68.0  |
| 2011-05-22 16:00 | 57.0  |
| 2011-05-22 17:00 | 54.0  |
| 2011-05-22 18:00 | 48.0  |
| 2011-05-22 19:00 | 41.0  |
| 2011-05-22 20:00 | 35.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-05-22 21:00 | 27.0  |
| 2011-05-22 22:00 | 18.0  |
| 2011-05-22 23:00 | 18.0  |
| 2011-05-23 00:00 | 16.0  |
| 2011-05-23 01:00 | 2.0   |
| 2011-05-23 02:00 | 2.0   |
| 2011-05-23 03:00 | 2.0   |
| 2011-05-23 04:00 | 3.0   |
| 2011-05-23 05:00 | 2.0   |
| 2011-05-23 06:00 | 2.0   |
| 2011-05-23 07:00 | 2.0   |
| 2011-05-23 08:00 | 5.0   |
| 2011-05-23 09:00 | 10.0  |
| 2011-05-23 10:00 | 16.0  |
| 2011-05-23 11:00 | 26.0  |
| 2011-05-23 12:00 | 31.0  |
| 2011-05-23 13:00 | 42.0  |
| 2011-05-23 14:00 | 61.0  |
| 2011-05-23 15:00 | 85.0  |
| 2011-05-23 16:00 | 113.0 |
| 2011-05-23 17:00 | 119.0 |
| 2011-05-23 18:00 | 125.0 |
| 2011-05-23 19:00 | 137.0 |
| 2011-05-23 20:00 | 129.0 |
| 2011-05-23 21:00 | 122.0 |
| 2011-05-23 22:00 | 110.0 |
| 2011-05-23 23:00 | 118.0 |
| 2011-05-24 00:00 | 130.0 |
| 2011-05-24 01:00 | 140.0 |
| 2011-05-24 02:00 | 141.0 |
| 2011-05-24 03:00 | 148.0 |
| 2011-05-24 04:00 | 149.0 |
| 2011-05-24 05:00 | 159.0 |
| 2011-05-24 06:00 | 167.0 |
| 2011-05-24 07:00 | 186.0 |
| 2011-05-24 08:00 | 198.0 |
| 2011-05-24 09:00 | 220.0 |
| 2011-05-24 10:00 | 226.0 |
| 2011-05-24 11:00 | 236.0 |
| 2011-05-24 12:00 | 244.0 |
| 2011-05-24 13:00 | 247.0 |
| 2011-05-24 14:00 | 248.0 |
| 2011-05-24 15:00 | 251.0 |
| 2011-05-24 16:00 | 250.0 |
| 2011-05-24 17:00 | 252.0 |
| 2011-05-24 18:00 | 250.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-05-24 19:00 | 247.0 |
| 2011-05-24 20:00 | 245.0 |
| 2011-05-24 21:00 | 242.0 |
| 2011-05-24 22:00 | 240.0 |
| 2011-05-24 23:00 | 233.0 |
| 2011-05-25 00:00 | 225.0 |
| 2011-05-25 01:00 | 152.0 |
| 2011-05-25 02:00 | 136.0 |
| 2011-05-25 03:00 | 113.0 |
| 2011-05-25 04:00 | 98.0  |
| 2011-05-25 05:00 | 69.0  |
| 2011-05-25 06:00 | 44.0  |
| 2011-05-25 07:00 | 29.0  |
| 2011-05-25 08:00 | 19.0  |
| 2011-05-25 09:00 | 15.0  |
| 2011-05-25 10:00 | 12.0  |
| 2011-05-25 11:00 | 14.0  |
| 2011-05-25 12:00 | 17.0  |
| 2011-05-25 13:00 | 24.0  |
| 2011-05-25 14:00 | 24.0  |
| 2011-05-25 15:00 | 23.0  |
| 2011-05-25 16:00 | 25.0  |
| 2011-05-25 17:00 | 26.0  |
| 2011-05-25 18:00 | 26.0  |
| 2011-05-25 19:00 | 25.0  |
| 2011-05-25 20:00 | 14.0  |
| 2011-05-25 21:00 | 7.0   |
| 2011-05-25 22:00 | 3.0   |
| 2011-05-25 23:00 | 2.0   |
| 2011-05-26 00:00 | 1.0   |
| 2011-05-26 01:00 | 5.0   |
| 2011-05-26 02:00 | 3.0   |
| 2011-05-26 03:00 | 2.0   |
| 2011-05-26 04:00 | 2.0   |
| 2011-05-26 05:00 | 2.0   |
| 2011-05-26 06:00 | 2.0   |
| 2011-05-26 07:00 | 3.0   |
| 2011-05-26 08:00 | 3.0   |
| 2011-05-26 09:00 | 5.0   |
| 2011-05-26 10:00 | 6.0   |
| 2011-05-26 11:00 | 9.0   |
| 2011-05-26 12:00 | 12.0  |
| 2011-05-26 13:00 | 16.0  |
| 2011-05-26 14:00 | 21.0  |
| 2011-05-26 15:00 | 26.0  |
| 2011-05-26 16:00 | 32.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-05-26 17:00 | 34.0  |
| 2011-05-26 18:00 | 35.0  |
| 2011-05-26 19:00 | 36.0  |
| 2011-05-26 20:00 | 33.0  |
| 2011-05-26 21:00 | 29.0  |
| 2011-05-26 22:00 | 27.0  |
| 2011-05-26 23:00 | 31.0  |
| 2011-05-27 00:00 | 38.0  |
| 2011-05-27 01:00 | 84.0  |
| 2011-05-27 02:00 | 77.0  |
| 2011-05-27 03:00 | 70.0  |
| 2011-05-27 04:00 | 63.0  |
| 2011-05-27 05:00 | 63.0  |
| 2011-05-27 06:00 | 54.0  |
| 2011-05-27 07:00 | 54.0  |
| 2011-05-27 08:00 | 66.0  |
| 2011-05-27 09:00 | 79.0  |
| 2011-05-27 10:00 | 93.0  |
| 2011-05-27 11:00 | 122.0 |
| 2011-05-27 12:00 | 152.0 |
| 2011-05-27 13:00 | 179.0 |
| 2011-05-27 14:00 | 175.0 |
| 2011-05-27 15:00 | 173.0 |
| 2011-05-27 16:00 | 172.0 |
| 2011-05-27 17:00 | 135.0 |
| 2011-05-27 18:00 | 110.0 |
| 2011-05-27 19:00 | 82.0  |
| 2011-05-27 20:00 | 54.0  |
| 2011-05-27 21:00 | 33.0  |
| 2011-05-27 22:00 | 22.0  |
| 2011-05-27 23:00 | 16.0  |
| 2011-05-28 00:00 | 12.0  |
| 2011-05-28 01:00 | 21.0  |
| 2011-05-28 02:00 | 13.0  |
| 2011-05-28 03:00 | 10.0  |
| 2011-05-28 04:00 | 7.0   |
| 2011-05-28 05:00 | 5.0   |
| 2011-05-28 06:00 | 8.0   |
| 2011-05-28 07:00 | 13.0  |
| 2011-05-28 08:00 | 11.0  |
| 2011-05-28 09:00 | 11.0  |
| 2011-05-28 10:00 | 13.0  |
| 2011-05-28 11:00 | 12.0  |
| 2011-05-28 12:00 | 13.0  |
| 2011-05-28 13:00 | 10.0  |
| 2011-05-28 14:00 | 7.0   |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-05-28 15:00 | 5.0   |
| 2011-05-28 16:00 | 4.0   |
| 2011-05-28 17:00 | 2.0   |
| 2011-05-28 18:00 | 2.0   |
| 2011-05-28 19:00 | 3.0   |
| 2011-05-28 20:00 | 3.0   |
| 2011-05-28 21:00 | 4.0   |
| 2011-05-28 22:00 | 3.0   |
| 2011-05-28 23:00 | 5.0   |
| 2011-05-29 00:00 | 8.0   |
| 2011-05-29 01:00 | 41.0  |
| 2011-05-29 02:00 | 42.0  |
| 2011-05-29 03:00 | 43.0  |
| 2011-05-29 04:00 | 44.0  |
| 2011-05-29 05:00 | 47.0  |
| 2011-05-29 06:00 | 53.0  |
| 2011-05-29 07:00 | 56.0  |
| 2011-05-29 08:00 | 66.0  |
| 2011-05-29 09:00 | 74.0  |
| 2011-05-29 10:00 | 84.0  |
| 2011-05-29 11:00 | 87.0  |
| 2011-05-29 12:00 | 98.0  |
| 2011-05-29 13:00 | 109.0 |
| 2011-05-29 14:00 | 119.0 |
| 2011-05-29 15:00 | 128.0 |
| 2011-05-29 16:00 | 133.0 |
| 2011-05-29 17:00 | 128.0 |
| 2011-05-29 18:00 | 126.0 |
| 2011-05-29 19:00 | 121.0 |
| 2011-05-29 20:00 | 118.0 |
| 2011-05-29 21:00 | 110.0 |
| 2011-05-29 22:00 | 104.0 |
| 2011-05-29 23:00 | 110.0 |
| 2011-05-30 00:00 | 133.0 |
| 2011-05-30 01:00 | 139.0 |
| 2011-05-30 02:00 | 143.0 |
| 2011-05-30 03:00 | 143.0 |
| 2011-05-30 04:00 | 143.0 |
| 2011-05-30 05:00 | 135.0 |
| 2011-05-30 06:00 | 128.0 |
| 2011-05-30 07:00 | 116.0 |
| 2011-05-30 08:00 | 98.0  |
| 2011-05-30 09:00 | 82.0  |
| 2011-05-30 10:00 | 64.0  |
| 2011-05-30 11:00 | 59.0  |
| 2011-05-30 12:00 | 52.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-05-30 13:00 | 48.0  |
| 2011-05-30 14:00 | 45.0  |
| 2011-05-30 15:00 | 50.0  |
| 2011-05-30 16:00 | 57.0  |
| 2011-05-30 17:00 | 51.0  |
| 2011-05-30 18:00 | 47.0  |
| 2011-05-30 19:00 | 49.0  |
| 2011-05-30 20:00 | 30.0  |
| 2011-05-30 21:00 | 20.0  |
| 2011-05-30 22:00 | 12.0  |
| 2011-05-30 23:00 | 10.0  |
| 2011-05-31 00:00 | 7.0   |
| 2011-05-31 01:00 | 20.0  |
| 2011-05-31 02:00 | 26.0  |
| 2011-05-31 03:00 | 31.0  |
| 2011-05-31 04:00 | 38.0  |
| 2011-05-31 05:00 | 49.0  |
| 2011-05-31 06:00 | 69.0  |
| 2011-05-31 07:00 | 91.0  |
| 2011-05-31 08:00 | 112.0 |
| 2011-05-31 09:00 | 120.0 |
| 2011-05-31 10:00 | 137.0 |
| 2011-05-31 11:00 | 137.0 |
| 2011-05-31 12:00 | 136.0 |
| 2011-05-31 13:00 | 136.0 |
| 2011-05-31 14:00 | 132.0 |
| 2011-05-31 15:00 | 124.0 |
| 2011-05-31 16:00 | 120.0 |
| 2011-05-31 17:00 | 103.0 |
| 2011-05-31 18:00 | 90.0  |
| 2011-05-31 19:00 | 76.0  |
| 2011-05-31 20:00 | 48.0  |
| 2011-05-31 21:00 | 27.0  |
| 2011-05-31 22:00 | 17.0  |
| 2011-05-31 23:00 | 15.0  |
| 2011-06-01 00:00 | 9.0   |
| 2011-06-01 01:00 | 6.0   |
| 2011-06-01 02:00 | 6.0   |
| 2011-06-01 03:00 | 3.0   |
| 2011-06-01 04:00 | 1.0   |
| 2011-06-01 05:00 | 2.0   |
| 2011-06-01 06:00 | 1.0   |
| 2011-06-01 07:00 | 1.0   |
| 2011-06-01 08:00 | 8.0   |
| 2011-06-01 09:00 | 23.0  |
| 2011-06-01 10:00 | 43.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-06-01 11:00 | 70.0  |
| 2011-06-01 12:00 | 99.0  |
| 2011-06-01 13:00 | 143.0 |
| 2011-06-01 14:00 | 173.0 |
| 2011-06-01 15:00 | 199.0 |
| 2011-06-01 16:00 | 222.0 |
| 2011-06-01 17:00 | 234.0 |
| 2011-06-01 18:00 | 242.0 |
| 2011-06-01 19:00 | 248.0 |
| 2011-06-01 20:00 | 252.0 |
| 2011-06-01 21:00 | 254.0 |
| 2011-06-01 22:00 | 255.0 |
| 2011-06-01 23:00 | 255.0 |
| 2011-06-02 00:00 | 255.0 |
| 2011-06-02 01:00 | 218.0 |
| 2011-06-02 02:00 | 219.0 |
| 2011-06-02 03:00 | 217.0 |
| 2011-06-02 04:00 | 218.0 |
| 2011-06-02 05:00 | 209.0 |
| 2011-06-02 06:00 | 202.0 |
| 2011-06-02 07:00 | 186.0 |
| 2011-06-02 08:00 | 170.0 |
| 2011-06-02 09:00 | 158.0 |
| 2011-06-02 10:00 | 143.0 |
| 2011-06-02 11:00 | 140.0 |
| 2011-06-02 12:00 | 138.0 |
| 2011-06-02 13:00 | 134.0 |
| 2011-06-02 14:00 | 137.0 |
| 2011-06-02 15:00 | 144.0 |
| 2011-06-02 16:00 | 148.0 |
| 2011-06-02 17:00 | 132.0 |
| 2011-06-02 18:00 | 121.0 |
| 2011-06-02 19:00 | 110.0 |
| 2011-06-02 20:00 | 85.0  |
| 2011-06-02 21:00 | 62.0  |
| 2011-06-02 22:00 | 44.0  |
| 2011-06-02 23:00 | 43.0  |
| 2011-06-03 00:00 | 40.0  |
| 2011-06-03 01:00 | 44.0  |
| 2011-06-03 02:00 | 45.0  |
| 2011-06-03 03:00 | 49.0  |
| 2011-06-03 04:00 | 45.0  |
| 2011-06-03 05:00 | 43.0  |
| 2011-06-03 06:00 | 40.0  |
| 2011-06-03 07:00 | 38.0  |
| 2011-06-03 08:00 | 36.0  |



## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-06-03 09:00 | 36.0 |
| 2011-06-03 10:00 | 38.0 |
| 2011-06-03 11:00 | 40.0 |
| 2011-06-03 12:00 | 43.0 |
| 2011-06-03 13:00 | 43.0 |
| 2011-06-03 14:00 | 43.0 |
| 2011-06-03 15:00 | 43.0 |
| 2011-06-03 16:00 | 35.0 |
| 2011-06-03 17:00 | 25.0 |
| 2011-06-03 18:00 | 24.0 |
| 2011-06-03 19:00 | 16.0 |
| 2011-06-03 20:00 | 11.0 |
| 2011-06-03 21:00 | 9.0  |
| 2011-06-03 22:00 | 7.0  |
| 2011-06-03 23:00 | 5.0  |
| 2011-06-04 00:00 | 4.0  |
| 2011-06-04 01:00 | 9.0  |
| 2011-06-04 02:00 | 9.0  |
| 2011-06-04 03:00 | 9.0  |
| 2011-06-04 04:00 | 9.0  |
| 2011-06-04 05:00 | 9.0  |
| 2011-06-04 06:00 | 10.0 |
| 2011-06-04 07:00 | 12.0 |
| 2011-06-04 08:00 | 13.0 |
| 2011-06-04 09:00 | 13.0 |
| 2011-06-04 10:00 | 13.0 |
| 2011-06-04 11:00 | 13.0 |
| 2011-06-04 12:00 | 14.0 |
| 2011-06-04 13:00 | 15.0 |
| 2011-06-04 14:00 | 19.0 |
| 2011-06-04 15:00 | 20.0 |
| 2011-06-04 16:00 | 27.0 |
| 2011-06-04 17:00 | 28.0 |
| 2011-06-04 18:00 | 31.0 |
| 2011-06-04 19:00 | 32.0 |
| 2011-06-04 20:00 | 30.0 |
| 2011-06-04 21:00 | 23.0 |
| 2011-06-04 22:00 | 20.0 |
| 2011-06-04 23:00 | 17.0 |
| 2011-06-05 00:00 | 14.0 |
| 2011-06-05 01:00 | 2.0  |
| 2011-06-05 02:00 | 2.0  |
| 2011-06-05 03:00 | 2.0  |
| 2011-06-05 04:00 | 1.0  |
| 2011-06-05 05:00 | 2.0  |
| 2011-06-05 06:00 | 3.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-06-05 07:00 | 6.0  |
| 2011-06-05 08:00 | 10.0 |
| 2011-06-05 09:00 | 13.0 |
| 2011-06-05 10:00 | 17.0 |
| 2011-06-05 11:00 | 24.0 |
| 2011-06-05 12:00 | 30.0 |
| 2011-06-05 13:00 | 35.0 |
| 2011-06-05 14:00 | 33.0 |
| 2011-06-05 15:00 | 35.0 |
| 2011-06-05 16:00 | 33.0 |
| 2011-06-05 17:00 | 33.0 |
| 2011-06-05 18:00 | 33.0 |
| 2011-06-05 19:00 | 34.0 |
| 2011-06-05 20:00 | 31.0 |
| 2011-06-05 21:00 | 28.0 |
| 2011-06-05 22:00 | 26.0 |
| 2011-06-05 23:00 | 19.0 |
| 2011-06-06 00:00 | 14.0 |
| 2011-06-06 01:00 | 11.0 |
| 2011-06-06 02:00 | 12.0 |
| 2011-06-06 03:00 | 13.0 |
| 2011-06-06 04:00 | 14.0 |
| 2011-06-06 05:00 | 18.0 |
| 2011-06-06 06:00 | 20.0 |
| 2011-06-06 07:00 | 26.0 |
| 2011-06-06 08:00 | 28.0 |
| 2011-06-06 09:00 | 30.0 |
| 2011-06-06 10:00 | 31.0 |
| 2011-06-06 11:00 | 31.0 |
| 2011-06-06 12:00 | 30.0 |
| 2011-06-06 13:00 | 30.0 |
| 2011-06-06 14:00 | 34.0 |
| 2011-06-06 15:00 | 38.0 |
| 2011-06-06 16:00 | 45.0 |
| 2011-06-06 17:00 | 37.0 |
| 2011-06-06 18:00 | 31.0 |
| 2011-06-06 19:00 | 25.0 |
| 2011-06-06 20:00 | 21.0 |
| 2011-06-06 21:00 | 21.0 |
| 2011-06-06 22:00 | 21.0 |
| 2011-06-06 23:00 | 21.0 |
| 2011-06-07 00:00 | 21.0 |
| 2011-06-07 01:00 | 29.0 |
| 2011-06-07 02:00 | 28.0 |
| 2011-06-07 03:00 | 26.0 |
| 2011-06-07 04:00 | 28.0 |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-06-07 05:00 | 29.0 |
| 2011-06-07 06:00 | 33.0 |
| 2011-06-07 07:00 | 34.0 |
| 2011-06-07 08:00 | 34.0 |
| 2011-06-07 09:00 | 31.0 |
| 2011-06-07 10:00 | 30.0 |
| 2011-06-07 11:00 | 29.0 |
| 2011-06-07 12:00 | 28.0 |
| 2011-06-07 13:00 | 26.0 |
| 2011-06-07 14:00 | 26.0 |
| 2011-06-07 15:00 | 25.0 |
| 2011-06-07 16:00 | 24.0 |
| 2011-06-07 17:00 | 25.0 |
| 2011-06-07 18:00 | 25.0 |
| 2011-06-07 19:00 | 25.0 |
| 2011-06-07 20:00 | 19.0 |
| 2011-06-07 21:00 | 12.0 |
| 2011-06-07 22:00 | 8.0  |
| 2011-06-07 23:00 | 7.0  |
| 2011-06-08 00:00 | 4.0  |
| 2011-06-08 01:00 | 8.0  |
| 2011-06-08 02:00 | 9.0  |
| 2011-06-08 03:00 | 10.0 |
| 2011-06-08 04:00 | 11.0 |
| 2011-06-08 05:00 | 11.0 |
| 2011-06-08 06:00 | 10.0 |
| 2011-06-08 07:00 | 11.0 |
| 2011-06-08 08:00 | 11.0 |
| 2011-06-08 09:00 | 15.0 |
| 2011-06-08 10:00 | 15.0 |
| 2011-06-08 11:00 | 15.0 |
| 2011-06-08 12:00 | 16.0 |
| 2011-06-08 13:00 | 18.0 |
| 2011-06-08 14:00 | 16.0 |
| 2011-06-08 15:00 | 19.0 |
| 2011-06-08 16:00 | 22.0 |
| 2011-06-08 17:00 | 21.0 |
| 2011-06-08 18:00 | 18.0 |
| 2011-06-08 19:00 | 17.0 |
| 2011-06-08 20:00 | 11.0 |
| 2011-06-08 21:00 | 9.0  |
| 2011-06-08 22:00 | 5.0  |
| 2011-06-08 23:00 | 3.0  |
| 2011-06-09 00:00 | 1.0  |
| 2011-06-09 01:00 | 9.0  |
| 2011-06-09 02:00 | 10.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-06-09 03:00 | 13.0  |
| 2011-06-09 04:00 | 14.0  |
| 2011-06-09 05:00 | 23.0  |
| 2011-06-09 06:00 | 29.0  |
| 2011-06-09 07:00 | 36.0  |
| 2011-06-09 08:00 | 45.0  |
| 2011-06-09 09:00 | 54.0  |
| 2011-06-09 10:00 | 65.0  |
| 2011-06-09 11:00 | 72.0  |
| 2011-06-09 12:00 | 86.0  |
| 2011-06-09 13:00 | 95.0  |
| 2011-06-09 14:00 | 101.0 |
| 2011-06-09 15:00 | 112.0 |
| 2011-06-09 16:00 | 125.0 |
| 2011-06-09 17:00 | 108.0 |
| 2011-06-09 18:00 | 81.0  |
| 2011-06-09 19:00 | 70.0  |
| 2011-06-09 20:00 | 56.0  |
| 2011-06-09 21:00 | 44.0  |
| 2011-06-09 22:00 | 33.0  |
| 2011-06-09 23:00 | 28.0  |
| 2011-06-10 00:00 | 22.0  |
| 2011-06-10 01:00 | 38.0  |
| 2011-06-10 02:00 | 24.0  |
| 2011-06-10 03:00 | 13.0  |
| 2011-06-10 04:00 | 9.0   |
| 2011-06-10 05:00 | 10.0  |
| 2011-06-10 06:00 | 15.0  |
| 2011-06-10 07:00 | 29.0  |
| 2011-06-10 08:00 | 30.0  |
| 2011-06-10 09:00 | 35.0  |
| 2011-06-10 10:00 | 41.0  |
| 2011-06-10 11:00 | 46.0  |
| 2011-06-10 12:00 | 49.0  |
| 2011-06-10 13:00 | 63.0  |
| 2011-06-10 14:00 | 59.0  |
| 2011-06-10 15:00 | 59.0  |
| 2011-06-10 16:00 | 64.0  |
| 2011-06-10 17:00 | 79.0  |
| 2011-06-10 18:00 | 99.0  |
| 2011-06-10 19:00 | 128.0 |
| 2011-06-10 20:00 | 98.0  |
| 2011-06-10 21:00 | 77.0  |
| 2011-06-10 22:00 | 58.0  |
| 2011-06-10 23:00 | 48.0  |
| 2011-06-11 00:00 | 42.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-06-11 01:00 | 28.0 |
| 2011-06-11 02:00 | 28.0 |
| 2011-06-11 03:00 | 23.0 |
| 2011-06-11 04:00 | 18.0 |
| 2011-06-11 05:00 | 24.0 |
| 2011-06-11 06:00 | 35.0 |
| 2011-06-11 07:00 | 37.0 |
| 2011-06-11 08:00 | 40.0 |
| 2011-06-11 09:00 | 41.0 |
| 2011-06-11 10:00 | 47.0 |
| 2011-06-11 11:00 | 50.0 |
| 2011-06-11 12:00 | 54.0 |
| 2011-06-11 13:00 | 63.0 |
| 2011-06-11 14:00 | 64.0 |
| 2011-06-11 15:00 | 69.0 |
| 2011-06-11 16:00 | 83.0 |
| 2011-06-11 17:00 | 67.0 |
| 2011-06-11 18:00 | 59.0 |
| 2011-06-11 19:00 | 55.0 |
| 2011-06-11 20:00 | 29.0 |
| 2011-06-11 21:00 | 12.0 |
| 2011-06-11 22:00 | 5.0  |
| 2011-06-11 23:00 | 3.0  |
| 2011-06-12 00:00 | 5.0  |
| 2011-06-12 01:00 | 9.0  |
| 2011-06-12 02:00 | 9.0  |
| 2011-06-12 03:00 | 9.0  |
| 2011-06-12 04:00 | 9.0  |
| 2011-06-12 05:00 | 10.0 |
| 2011-06-12 06:00 | 10.0 |
| 2011-06-12 07:00 | 9.0  |
| 2011-06-12 08:00 | 10.0 |
| 2011-06-12 09:00 | 13.0 |
| 2011-06-12 10:00 | 17.0 |
| 2011-06-12 11:00 | 16.0 |
| 2011-06-12 12:00 | 15.0 |
| 2011-06-12 13:00 | 16.0 |
| 2011-06-12 14:00 | 16.0 |
| 2011-06-12 15:00 | 17.0 |
| 2011-06-12 16:00 | 20.0 |
| 2011-06-12 17:00 | 23.0 |
| 2011-06-12 18:00 | 23.0 |
| 2011-06-12 19:00 | 24.0 |
| 2011-06-12 20:00 | 26.0 |
| 2011-06-12 21:00 | 33.0 |
| 2011-06-12 22:00 | 37.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-06-12 23:00 | 38.0  |
| 2011-06-13 00:00 | 40.0  |
| 2011-06-13 01:00 | 50.0  |
| 2011-06-13 02:00 | 53.0  |
| 2011-06-13 03:00 | 58.0  |
| 2011-06-13 04:00 | 59.0  |
| 2011-06-13 05:00 | 62.0  |
| 2011-06-13 06:00 | 60.0  |
| 2011-06-13 07:00 | 56.0  |
| 2011-06-13 08:00 | 54.0  |
| 2011-06-13 09:00 | 50.0  |
| 2011-06-13 10:00 | 52.0  |
| 2011-06-13 11:00 | 59.0  |
| 2011-06-13 12:00 | 65.0  |
| 2011-06-13 13:00 | 78.0  |
| 2011-06-13 14:00 | 81.0  |
| 2011-06-13 15:00 | 83.0  |
| 2011-06-13 16:00 | 84.0  |
| 2011-06-13 17:00 | 85.0  |
| 2011-06-13 18:00 | 85.0  |
| 2011-06-13 19:00 | 81.0  |
| 2011-06-13 20:00 | 78.0  |
| 2011-06-13 21:00 | 77.0  |
| 2011-06-13 22:00 | 75.0  |
| 2011-06-13 23:00 | 70.0  |
| 2011-06-14 00:00 | 67.0  |
| 2011-06-14 01:00 | 55.0  |
| 2011-06-14 02:00 | 61.0  |
| 2011-06-14 03:00 | 64.0  |
| 2011-06-14 04:00 | 68.0  |
| 2011-06-14 05:00 | 72.0  |
| 2011-06-14 06:00 | 82.0  |
| 2011-06-14 07:00 | 90.0  |
| 2011-06-14 08:00 | 93.0  |
| 2011-06-14 09:00 | 96.0  |
| 2011-06-14 10:00 | 99.0  |
| 2011-06-14 11:00 | 107.0 |
| 2011-06-14 12:00 | 111.0 |
| 2011-06-14 13:00 | 113.0 |
| 2011-06-14 14:00 | 108.0 |
| 2011-06-14 15:00 | 107.0 |
| 2011-06-14 16:00 | 107.0 |
| 2011-06-14 17:00 | 102.0 |
| 2011-06-14 18:00 | 97.0  |
| 2011-06-14 19:00 | 97.0  |
| 2011-06-14 20:00 | 89.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-06-14 21:00 | 79.0  |
| 2011-06-14 22:00 | 70.0  |
| 2011-06-14 23:00 | 75.0  |
| 2011-06-15 00:00 | 79.0  |
| 2011-06-15 01:00 | 105.0 |
| 2011-06-15 02:00 | 118.0 |
| 2011-06-15 03:00 | 132.0 |
| 2011-06-15 04:00 | 145.0 |
| 2011-06-15 05:00 | 161.0 |
| 2011-06-15 06:00 | 176.0 |
| 2011-06-15 07:00 | 191.0 |
| 2011-06-15 08:00 | 171.0 |
| 2011-06-15 09:00 | 162.0 |
| 2011-06-15 10:00 | 151.0 |
| 2011-06-15 11:00 | 140.0 |
| 2011-06-15 12:00 | 126.0 |
| 2011-06-15 13:00 | 120.0 |
| 2011-06-15 14:00 | 116.0 |
| 2011-06-15 15:00 | 112.0 |
| 2011-06-15 16:00 | 111.0 |
| 2011-06-15 17:00 | 99.0  |
| 2011-06-15 18:00 | 90.0  |
| 2011-06-15 19:00 | 82.0  |
| 2011-06-15 20:00 | 78.0  |
| 2011-06-15 21:00 | 76.0  |
| 2011-06-15 22:00 | 72.0  |
| 2011-06-15 23:00 | 74.0  |
| 2011-06-16 00:00 | 73.0  |
| 2011-06-16 01:00 | 76.0  |
| 2011-06-16 02:00 | 72.0  |
| 2011-06-16 03:00 | 65.0  |
| 2011-06-16 04:00 | 64.0  |
| 2011-06-16 05:00 | 58.0  |
| 2011-06-16 06:00 | 50.0  |
| 2011-06-16 07:00 | 46.0  |
| 2011-06-16 08:00 | 40.0  |
| 2011-06-16 09:00 | 36.0  |
| 2011-06-16 10:00 | 33.0  |
| 2011-06-16 11:00 | 32.0  |
| 2011-06-16 12:00 | 31.0  |
| 2011-06-16 13:00 | 28.0  |
| 2011-06-16 14:00 | 24.0  |
| 2011-06-16 15:00 | 23.0  |
| 2011-06-16 16:00 | 21.0  |
| 2011-06-16 17:00 | 21.0  |
| 2011-06-16 18:00 | 22.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-06-16 19:00 | 24.0  |
| 2011-06-16 20:00 | 23.0  |
| 2011-06-16 21:00 | 22.0  |
| 2011-06-16 22:00 | 21.0  |
| 2011-06-16 23:00 | 19.0  |
| 2011-06-17 00:00 | 17.0  |
| 2011-06-17 01:00 | 8.0   |
| 2011-06-17 02:00 | 7.0   |
| 2011-06-17 03:00 | 5.0   |
| 2011-06-17 04:00 | 4.0   |
| 2011-06-17 05:00 | 4.0   |
| 2011-06-17 06:00 | 4.0   |
| 2011-06-17 07:00 | 4.0   |
| 2011-06-17 08:00 | 3.0   |
| 2011-06-17 09:00 | 5.0   |
| 2011-06-17 10:00 | 5.0   |
| 2011-06-17 11:00 | 3.0   |
| 2011-06-17 12:00 | 2.0   |
| 2011-06-17 13:00 | 2.0   |
| 2011-06-17 14:00 | 3.0   |
| 2011-06-17 15:00 | 6.0   |
| 2011-06-17 16:00 | 14.0  |
| 2011-06-17 17:00 | 18.0  |
| 2011-06-17 18:00 | 28.0  |
| 2011-06-17 19:00 | 44.0  |
| 2011-06-17 20:00 | 36.0  |
| 2011-06-17 21:00 | 31.0  |
| 2011-06-17 22:00 | 28.0  |
| 2011-06-17 23:00 | 35.0  |
| 2011-06-18 00:00 | 42.0  |
| 2011-06-18 01:00 | 36.0  |
| 2011-06-18 02:00 | 34.0  |
| 2011-06-18 03:00 | 34.0  |
| 2011-06-18 04:00 | 35.0  |
| 2011-06-18 05:00 | 40.0  |
| 2011-06-18 06:00 | 42.0  |
| 2011-06-18 07:00 | 45.0  |
| 2011-06-18 08:00 | 58.0  |
| 2011-06-18 09:00 | 72.0  |
| 2011-06-18 10:00 | 86.0  |
| 2011-06-18 11:00 | 103.0 |
| 2011-06-18 12:00 | 119.0 |
| 2011-06-18 13:00 | 141.0 |
| 2011-06-18 14:00 | 144.0 |
| 2011-06-18 15:00 | 149.0 |
| 2011-06-18 16:00 | 151.0 |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-06-18 17:00 | 142.0 |
| 2011-06-18 18:00 | 126.0 |
| 2011-06-18 19:00 | 118.0 |
| 2011-06-18 20:00 | 107.0 |
| 2011-06-18 21:00 | 103.0 |
| 2011-06-18 22:00 | 94.0  |
| 2011-06-18 23:00 | 103.0 |
| 2011-06-19 00:00 | 123.0 |
| 2011-06-19 01:00 | 149.0 |
| 2011-06-19 02:00 | 149.0 |
| 2011-06-19 03:00 | 145.0 |
| 2011-06-19 04:00 | 138.0 |
| 2011-06-19 05:00 | 121.0 |
| 2011-06-19 06:00 | 100.0 |
| 2011-06-19 07:00 | 75.0  |
| 2011-06-19 08:00 | 68.0  |
| 2011-06-19 09:00 | 59.0  |
| 2011-06-19 10:00 | 55.0  |
| 2011-06-19 11:00 | 55.0  |
| 2011-06-19 12:00 | 59.0  |
| 2011-06-19 13:00 | 62.0  |
| 2011-06-19 14:00 | 51.0  |
| 2011-06-19 15:00 | 44.0  |
| 2011-06-19 16:00 | 38.0  |
| 2011-06-19 17:00 | 37.0  |
| 2011-06-19 18:00 | 40.0  |
| 2011-06-19 19:00 | 38.0  |
| 2011-06-19 20:00 | 32.0  |
| 2011-06-19 21:00 | 25.0  |
| 2011-06-19 22:00 | 21.0  |
| 2011-06-19 23:00 | 23.0  |
| 2011-06-20 00:00 | 21.0  |
| 2011-06-20 01:00 | 42.0  |
| 2011-06-20 02:00 | 34.0  |
| 2011-06-20 03:00 | 34.0  |
| 2011-06-20 04:00 | 29.0  |
| 2011-06-20 05:00 | 33.0  |
| 2011-06-20 06:00 | 35.0  |
| 2011-06-20 07:00 | 37.0  |
| 2011-06-20 08:00 | 39.0  |
| 2011-06-20 09:00 | 40.0  |
| 2011-06-20 10:00 | 42.0  |
| 2011-06-20 11:00 | 50.0  |
| 2011-06-20 12:00 | 57.0  |
| 2011-06-20 13:00 | 63.0  |
| 2011-06-20 14:00 | 63.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-06-20 15:00 | 61.0 |
| 2011-06-20 16:00 | 62.0 |
| 2011-06-20 17:00 | 57.0 |
| 2011-06-20 18:00 | 53.0 |
| 2011-06-20 19:00 | 47.0 |
| 2011-06-20 20:00 | 33.0 |
| 2011-06-20 21:00 | 20.0 |
| 2011-06-20 22:00 | 17.0 |
| 2011-06-20 23:00 | 14.0 |
| 2011-06-21 00:00 | 11.0 |
| 2011-06-21 01:00 | 14.0 |
| 2011-06-21 02:00 | 14.0 |
| 2011-06-21 03:00 | 15.0 |
| 2011-06-21 04:00 | 16.0 |
| 2011-06-21 05:00 | 18.0 |
| 2011-06-21 06:00 | 19.0 |
| 2011-06-21 07:00 | 21.0 |
| 2011-06-21 08:00 | 22.0 |
| 2011-06-21 09:00 | 28.0 |
| 2011-06-21 10:00 | 33.0 |
| 2011-06-21 11:00 | 34.0 |
| 2011-06-21 12:00 | 38.0 |
| 2011-06-21 13:00 | 46.0 |
| 2011-06-21 14:00 | 50.0 |
| 2011-06-21 15:00 | 61.0 |
| 2011-06-21 16:00 | 71.0 |
| 2011-06-21 17:00 | 67.0 |
| 2011-06-21 18:00 | 65.0 |
| 2011-06-21 19:00 | 66.0 |
| 2011-06-21 20:00 | 49.0 |
| 2011-06-21 21:00 | 33.0 |
| 2011-06-21 22:00 | 24.0 |
| 2011-06-21 23:00 | 21.0 |
| 2011-06-22 00:00 | 19.0 |
| 2011-06-22 01:00 | 60.0 |
| 2011-06-22 02:00 | 65.0 |
| 2011-06-22 03:00 | 73.0 |
| 2011-06-22 04:00 | 80.0 |
| 2011-06-22 05:00 | 73.0 |
| 2011-06-22 06:00 | 66.0 |
| 2011-06-22 07:00 | 63.0 |
| 2011-06-22 08:00 | 63.0 |
| 2011-06-22 09:00 | 67.0 |
| 2011-06-22 10:00 | 66.0 |
| 2011-06-22 11:00 | 80.0 |
| 2011-06-22 12:00 | 97.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-06-22 13:00 | 123.0 |
| 2011-06-22 14:00 | 128.0 |
| 2011-06-22 15:00 | 130.0 |
| 2011-06-22 16:00 | 137.0 |
| 2011-06-22 17:00 | 128.0 |
| 2011-06-22 18:00 | 119.0 |
| 2011-06-22 19:00 | 108.0 |
| 2011-06-22 20:00 | 68.0  |
| 2011-06-22 21:00 | 37.0  |
| 2011-06-22 22:00 | 23.0  |
| 2011-06-22 23:00 | 16.0  |
| 2011-06-23 00:00 | 13.0  |
| 2011-06-23 01:00 | 24.0  |
| 2011-06-23 02:00 | 22.0  |
| 2011-06-23 03:00 | 19.0  |
| 2011-06-23 04:00 | 19.0  |
| 2011-06-23 05:00 | 19.0  |
| 2011-06-23 06:00 | 19.0  |
| 2011-06-23 07:00 | 17.0  |
| 2011-06-23 08:00 | 19.0  |
| 2011-06-23 09:00 | 21.0  |
| 2011-06-23 10:00 | 22.0  |
| 2011-06-23 11:00 | 25.0  |
| 2011-06-23 12:00 | 30.0  |
| 2011-06-23 13:00 | 40.0  |
| 2011-06-23 14:00 | 38.0  |
| 2011-06-23 15:00 | 35.0  |
| 2011-06-23 16:00 | 34.0  |
| 2011-06-23 17:00 | 35.0  |
| 2011-06-23 18:00 | 35.0  |
| 2011-06-23 19:00 | 35.0  |
| 2011-06-23 20:00 | 28.0  |
| 2011-06-23 21:00 | 23.0  |
| 2011-06-23 22:00 | 21.0  |
| 2011-06-23 23:00 | 25.0  |
| 2011-06-24 00:00 | 29.0  |
| 2011-06-24 01:00 | 16.0  |
| 2011-06-24 02:00 | 18.0  |
| 2011-06-24 03:00 | 17.0  |
| 2011-06-24 04:00 | 20.0  |
| 2011-06-24 05:00 | 20.0  |
| 2011-06-24 06:00 | 20.0  |
| 2011-06-24 07:00 | 21.0  |
| 2011-06-24 08:00 | 28.0  |
| 2011-06-24 09:00 | 31.0  |
| 2011-06-24 10:00 | 34.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-06-24 11:00 | 43.0  |
| 2011-06-24 12:00 | 49.0  |
| 2011-06-24 13:00 | 54.0  |
| 2011-06-24 14:00 | 59.0  |
| 2011-06-24 15:00 | 60.0  |
| 2011-06-24 16:00 | 69.0  |
| 2011-06-24 17:00 | 74.0  |
| 2011-06-24 18:00 | 78.0  |
| 2011-06-24 19:00 | 84.0  |
| 2011-06-24 20:00 | 84.0  |
| 2011-06-24 21:00 | 77.0  |
| 2011-06-24 22:00 | 77.0  |
| 2011-06-24 23:00 | 79.0  |
| 2011-06-25 00:00 | 79.0  |
| 2011-06-25 01:00 | 49.0  |
| 2011-06-25 02:00 | 50.0  |
| 2011-06-25 03:00 | 52.0  |
| 2011-06-25 04:00 | 55.0  |
| 2011-06-25 05:00 | 55.0  |
| 2011-06-25 06:00 | 58.0  |
| 2011-06-25 07:00 | 60.0  |
| 2011-06-25 08:00 | 72.0  |
| 2011-06-25 09:00 | 79.0  |
| 2011-06-25 10:00 | 93.0  |
| 2011-06-25 11:00 | 100.0 |
| 2011-06-25 12:00 | 108.0 |
| 2011-06-25 13:00 | 121.0 |
| 2011-06-25 14:00 | 120.0 |
| 2011-06-25 15:00 | 123.0 |
| 2011-06-25 16:00 | 125.0 |
| 2011-06-25 17:00 | 122.0 |
| 2011-06-25 18:00 | 121.0 |
| 2011-06-25 19:00 | 115.0 |
| 2011-06-25 20:00 | 111.0 |
| 2011-06-25 21:00 | 107.0 |
| 2011-06-25 22:00 | 96.0  |
| 2011-06-25 23:00 | 90.0  |
| 2011-06-26 00:00 | 87.0  |
| 2011-06-26 01:00 | 66.0  |
| 2011-06-26 02:00 | 61.0  |
| 2011-06-26 03:00 | 58.0  |
| 2011-06-26 04:00 | 51.0  |
| 2011-06-26 05:00 | 46.0  |
| 2011-06-26 06:00 | 37.0  |
| 2011-06-26 07:00 | 33.0  |
| 2011-06-26 08:00 | 31.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-06-26 09:00 | 26.0 |
| 2011-06-26 10:00 | 25.0 |
| 2011-06-26 11:00 | 22.0 |
| 2011-06-26 12:00 | 21.0 |
| 2011-06-26 13:00 | 21.0 |
| 2011-06-26 14:00 | 20.0 |
| 2011-06-26 15:00 | 20.0 |
| 2011-06-26 16:00 | 21.0 |
| 2011-06-26 17:00 | 17.0 |
| 2011-06-26 18:00 | 13.0 |
| 2011-06-26 19:00 | 11.0 |
| 2011-06-26 20:00 | 7.0  |
| 2011-06-26 21:00 | 4.0  |
| 2011-06-26 22:00 | 3.0  |
| 2011-06-26 23:00 | 1.0  |
| 2011-06-27 00:00 | 1.0  |
| 2011-06-27 01:00 | 6.0  |
| 2011-06-27 02:00 | 5.0  |
| 2011-06-27 03:00 | 5.0  |
| 2011-06-27 04:00 | 7.0  |
| 2011-06-27 05:00 | 7.0  |
| 2011-06-27 06:00 | 6.0  |
| 2011-06-27 07:00 | 6.0  |
| 2011-06-27 08:00 | 6.0  |
| 2011-06-27 09:00 | 8.0  |
| 2011-06-27 10:00 | 10.0 |
| 2011-06-27 11:00 | 9.0  |
| 2011-06-27 12:00 | 10.0 |
| 2011-06-27 13:00 | 11.0 |
| 2011-06-27 14:00 | 11.0 |
| 2011-06-27 15:00 | 10.0 |
| 2011-06-27 16:00 | 12.0 |
| 2011-06-27 17:00 | 14.0 |
| 2011-06-27 18:00 | 17.0 |
| 2011-06-27 19:00 | 26.0 |
| 2011-06-27 20:00 | 22.0 |
| 2011-06-27 21:00 | 23.0 |
| 2011-06-27 22:00 | 26.0 |
| 2011-06-27 23:00 | 17.0 |
| 2011-06-28 00:00 | 13.0 |
| 2011-06-28 01:00 | 14.0 |
| 2011-06-28 02:00 | 13.0 |
| 2011-06-28 03:00 | 11.0 |
| 2011-06-28 04:00 | 9.0  |
| 2011-06-28 05:00 | 9.0  |
| 2011-06-28 06:00 | 10.0 |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-06-28 07:00 | 10.0 |
| 2011-06-28 08:00 | 10.0 |
| 2011-06-28 09:00 | 11.0 |
| 2011-06-28 10:00 | 13.0 |
| 2011-06-28 11:00 | 13.0 |
| 2011-06-28 12:00 | 13.0 |
| 2011-06-28 13:00 | 13.0 |
| 2011-06-28 14:00 | 15.0 |
| 2011-06-28 15:00 | 18.0 |
| 2011-06-28 16:00 | 20.0 |
| 2011-06-28 17:00 | 20.0 |
| 2011-06-28 18:00 | 20.0 |
| 2011-06-28 19:00 | 21.0 |
| 2011-06-28 20:00 | 14.0 |
| 2011-06-28 21:00 | 11.0 |
| 2011-06-28 22:00 | 8.0  |
| 2011-06-28 23:00 | 7.0  |
| 2011-06-29 00:00 | 3.0  |
| 2011-06-29 01:00 | 3.0  |
| 2011-06-29 02:00 | 2.0  |
| 2011-06-29 03:00 | 3.0  |
| 2011-06-29 04:00 | 3.0  |
| 2011-06-29 05:00 | 4.0  |
| 2011-06-29 06:00 | 4.0  |
| 2011-06-29 07:00 | 4.0  |
| 2011-06-29 08:00 | 7.0  |
| 2011-06-29 09:00 | 11.0 |
| 2011-06-29 10:00 | 14.0 |
| 2011-06-29 11:00 | 22.0 |
| 2011-06-29 12:00 | 29.0 |
| 2011-06-29 13:00 | 36.0 |
| 2011-06-29 14:00 | 45.0 |
| 2011-06-29 15:00 | 56.0 |
| 2011-06-29 16:00 | 68.0 |
| 2011-06-29 17:00 | 65.0 |
| 2011-06-29 18:00 | 63.0 |
| 2011-06-29 19:00 | 57.0 |
| 2011-06-29 20:00 | 47.0 |
| 2011-06-29 21:00 | 43.0 |
| 2011-06-29 22:00 | 36.0 |
| 2011-06-29 23:00 | 30.0 |
| 2011-06-30 00:00 | 32.0 |
| 2011-06-30 01:00 | 15.0 |
| 2011-06-30 02:00 | 14.0 |
| 2011-06-30 03:00 | 13.0 |
| 2011-06-30 04:00 | 10.0 |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-06-30 05:00 | 10.0 |
| 2011-06-30 06:00 | 9.0  |
| 2011-06-30 07:00 | 8.0  |
| 2011-06-30 08:00 | 6.0  |
| 2011-06-30 09:00 | 6.0  |
| 2011-06-30 10:00 | 5.0  |
| 2011-06-30 11:00 | 8.0  |
| 2011-06-30 12:00 | 9.0  |
| 2011-06-30 13:00 | 12.0 |
| 2011-06-30 14:00 | 14.0 |
| 2011-06-30 15:00 | 17.0 |
| 2011-06-30 16:00 | 20.0 |
| 2011-06-30 17:00 | 22.0 |
| 2011-06-30 18:00 | 24.0 |
| 2011-06-30 19:00 | 26.0 |
| 2011-06-30 20:00 | 24.0 |
| 2011-06-30 21:00 | 24.0 |
| 2011-06-30 22:00 | 22.0 |
| 2011-06-30 23:00 | 24.0 |
| 2011-07-01 00:00 | 28.0 |
| 2011-07-01 01:00 | 15.0 |
| 2011-07-01 02:00 | 15.0 |
| 2011-07-01 03:00 | 13.0 |
| 2011-07-01 04:00 | 12.0 |
| 2011-07-01 05:00 | 9.0  |
| 2011-07-01 06:00 | 6.0  |
| 2011-07-01 07:00 | 4.0  |
| 2011-07-01 08:00 | 5.0  |
| 2011-07-01 09:00 | 5.0  |
| 2011-07-01 10:00 | 5.0  |
| 2011-07-01 11:00 | 5.0  |
| 2011-07-01 12:00 | 8.0  |
| 2011-07-01 13:00 | 13.0 |
| 2011-07-01 14:00 | 12.0 |
| 2011-07-01 15:00 | 15.0 |
| 2011-07-01 16:00 | 19.0 |
| 2011-07-01 17:00 | 18.0 |
| 2011-07-01 18:00 | 16.0 |
| 2011-07-01 19:00 | 15.0 |
| 2011-07-01 20:00 | 12.0 |
| 2011-07-01 21:00 | 9.0  |
| 2011-07-01 22:00 | 6.0  |
| 2011-07-01 23:00 | 4.0  |
| 2011-07-02 00:00 | 3.0  |
| 2011-07-02 01:00 | 1.0  |
| 2011-07-02 02:00 | 1.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-07-02 03:00 | 1.0  |
| 2011-07-02 04:00 | 1.0  |
| 2011-07-02 05:00 | 1.0  |
| 2011-07-02 06:00 | 0.0  |
| 2011-07-02 07:00 | 0.0  |
| 2011-07-02 08:00 | 0.0  |
| 2011-07-02 09:00 | 0.0  |
| 2011-07-02 10:00 | 0.0  |
| 2011-07-02 11:00 | 1.0  |
| 2011-07-02 12:00 | 2.0  |
| 2011-07-02 13:00 | 7.0  |
| 2011-07-02 14:00 | 7.0  |
| 2011-07-02 15:00 | 8.0  |
| 2011-07-02 16:00 | 9.0  |
| 2011-07-02 17:00 | 5.0  |
| 2011-07-02 18:00 | 4.0  |
| 2011-07-02 19:00 | 4.0  |
| 2011-07-02 20:00 | 3.0  |
| 2011-07-02 21:00 | 1.0  |
| 2011-07-02 22:00 | 2.0  |
| 2011-07-02 23:00 | 3.0  |
| 2011-07-03 00:00 | 5.0  |
| 2011-07-03 01:00 | 18.0 |
| 2011-07-03 02:00 | 16.0 |
| 2011-07-03 03:00 | 15.0 |
| 2011-07-03 04:00 | 14.0 |
| 2011-07-03 05:00 | 15.0 |
| 2011-07-03 06:00 | 15.0 |
| 2011-07-03 07:00 | 16.0 |
| 2011-07-03 08:00 | 18.0 |
| 2011-07-03 09:00 | 24.0 |
| 2011-07-03 10:00 | 27.0 |
| 2011-07-03 11:00 | 32.0 |
| 2011-07-03 12:00 | 40.0 |
| 2011-07-03 13:00 | 54.0 |
| 2011-07-03 14:00 | 59.0 |
| 2011-07-03 15:00 | 65.0 |
| 2011-07-03 16:00 | 70.0 |
| 2011-07-03 17:00 | 77.0 |
| 2011-07-03 18:00 | 78.0 |
| 2011-07-03 19:00 | 78.0 |
| 2011-07-03 20:00 | 70.0 |
| 2011-07-03 21:00 | 63.0 |
| 2011-07-03 22:00 | 58.0 |
| 2011-07-03 23:00 | 57.0 |
| 2011-07-04 00:00 | 56.0 |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-07-04 01:00 | 56.0  |
| 2011-07-04 02:00 | 53.0  |
| 2011-07-04 03:00 | 48.0  |
| 2011-07-04 04:00 | 49.0  |
| 2011-07-04 05:00 | 49.0  |
| 2011-07-04 06:00 | 52.0  |
| 2011-07-04 07:00 | 53.0  |
| 2011-07-04 08:00 | 57.0  |
| 2011-07-04 09:00 | 64.0  |
| 2011-07-04 10:00 | 69.0  |
| 2011-07-04 11:00 | 83.0  |
| 2011-07-04 12:00 | 101.0 |
| 2011-07-04 13:00 | 122.0 |
| 2011-07-04 14:00 | 133.0 |
| 2011-07-04 15:00 | 139.0 |
| 2011-07-04 16:00 | 146.0 |
| 2011-07-04 17:00 | 130.0 |
| 2011-07-04 18:00 | 119.0 |
| 2011-07-04 19:00 | 106.0 |
| 2011-07-04 20:00 | 101.0 |
| 2011-07-04 21:00 | 93.0  |
| 2011-07-04 22:00 | 95.0  |
| 2011-07-04 23:00 | 82.0  |
| 2011-07-05 00:00 | 73.0  |
| 2011-07-05 01:00 | 22.0  |
| 2011-07-05 02:00 | 18.0  |
| 2011-07-05 03:00 | 16.0  |
| 2011-07-05 04:00 | 12.0  |
| 2011-07-05 05:00 | 13.0  |
| 2011-07-05 06:00 | 13.0  |
| 2011-07-05 07:00 | 13.0  |
| 2011-07-05 08:00 | 13.0  |
| 2011-07-05 09:00 | 12.0  |
| 2011-07-05 10:00 | 16.0  |
| 2011-07-05 11:00 | 20.0  |
| 2011-07-05 12:00 | 23.0  |
| 2011-07-05 13:00 | 26.0  |
| 2011-07-05 14:00 | 30.0  |
| 2011-07-05 15:00 | 32.0  |
| 2011-07-05 16:00 | 34.0  |
| 2011-07-05 17:00 | 34.0  |
| 2011-07-05 18:00 | 40.0  |
| 2011-07-05 19:00 | 40.0  |
| 2011-07-05 20:00 | 34.0  |
| 2011-07-05 21:00 | 32.0  |
| 2011-07-05 22:00 | 26.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-07-05 23:00 | 25.0 |
| 2011-07-06 00:00 | 25.0 |
| 2011-07-06 01:00 | 22.0 |
| 2011-07-06 02:00 | 19.0 |
| 2011-07-06 03:00 | 18.0 |
| 2011-07-06 04:00 | 17.0 |
| 2011-07-06 05:00 | 12.0 |
| 2011-07-06 06:00 | 8.0  |
| 2011-07-06 07:00 | 6.0  |
| 2011-07-06 08:00 | 7.0  |
| 2011-07-06 09:00 | 7.0  |
| 2011-07-06 10:00 | 8.0  |
| 2011-07-06 11:00 | 12.0 |
| 2011-07-06 12:00 | 19.0 |
| 2011-07-06 13:00 | 26.0 |
| 2011-07-06 14:00 | 36.0 |
| 2011-07-06 15:00 | 45.0 |
| 2011-07-06 16:00 | 59.0 |
| 2011-07-06 17:00 | 66.0 |
| 2011-07-06 18:00 | 72.0 |
| 2011-07-06 19:00 | 84.0 |
| 2011-07-06 20:00 | 82.0 |
| 2011-07-06 21:00 | 85.0 |
| 2011-07-06 22:00 | 82.0 |
| 2011-07-06 23:00 | 91.0 |
| 2011-07-07 00:00 | 99.0 |
| 2011-07-07 01:00 | 67.0 |
| 2011-07-07 02:00 | 64.0 |
| 2011-07-07 03:00 | 63.0 |
| 2011-07-07 04:00 | 59.0 |
| 2011-07-07 05:00 | 56.0 |
| 2011-07-07 06:00 | 53.0 |
| 2011-07-07 07:00 | 51.0 |
| 2011-07-07 08:00 | 53.0 |
| 2011-07-07 09:00 | 62.0 |
| 2011-07-07 10:00 | 65.0 |
| 2011-07-07 11:00 | 67.0 |
| 2011-07-07 12:00 | 69.0 |
| 2011-07-07 13:00 | 74.0 |
| 2011-07-07 14:00 | 76.0 |
| 2011-07-07 15:00 | 78.0 |
| 2011-07-07 16:00 | 85.0 |
| 2011-07-07 17:00 | 74.0 |
| 2011-07-07 18:00 | 69.0 |
| 2011-07-07 19:00 | 60.0 |
| 2011-07-07 20:00 | 41.0 |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-07-07 21:00 | 30.0 |
| 2011-07-07 22:00 | 16.0 |
| 2011-07-07 23:00 | 13.0 |
| 2011-07-08 00:00 | 9.0  |
| 2011-07-08 01:00 | 25.0 |
| 2011-07-08 02:00 | 17.0 |
| 2011-07-08 03:00 | 11.0 |
| 2011-07-08 04:00 | 9.0  |
| 2011-07-08 05:00 | 8.0  |
| 2011-07-08 06:00 | 7.0  |
| 2011-07-08 07:00 | 7.0  |
| 2011-07-08 08:00 | 10.0 |
| 2011-07-08 09:00 | 17.0 |
| 2011-07-08 10:00 | 24.0 |
| 2011-07-08 11:00 | 26.0 |
| 2011-07-08 12:00 | 28.0 |
| 2011-07-08 13:00 | 31.0 |
| 2011-07-08 14:00 | 27.0 |
| 2011-07-08 15:00 | 23.0 |
| 2011-07-08 16:00 | 24.0 |
| 2011-07-08 17:00 | 15.0 |
| 2011-07-08 18:00 | 8.0  |
| 2011-07-08 19:00 | 6.0  |
| 2011-07-08 20:00 | 3.0  |
| 2011-07-08 21:00 | 2.0  |
| 2011-07-08 22:00 | 1.0  |
| 2011-07-08 23:00 | 1.0  |
| 2011-07-09 00:00 | 1.0  |
| 2011-07-09 01:00 | 27.0 |
| 2011-07-09 02:00 | 22.0 |
| 2011-07-09 03:00 | 21.0 |
| 2011-07-09 04:00 | 22.0 |
| 2011-07-09 05:00 | 22.0 |
| 2011-07-09 06:00 | 24.0 |
| 2011-07-09 07:00 | 29.0 |
| 2011-07-09 08:00 | 32.0 |
| 2011-07-09 09:00 | 39.0 |
| 2011-07-09 10:00 | 46.0 |
| 2011-07-09 11:00 | 48.0 |
| 2011-07-09 12:00 | 50.0 |
| 2011-07-09 13:00 | 60.0 |
| 2011-07-09 14:00 | 48.0 |
| 2011-07-09 15:00 | 39.0 |
| 2011-07-09 16:00 | 33.0 |
| 2011-07-09 17:00 | 21.0 |
| 2011-07-09 18:00 | 13.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-07-09 19:00 | 6.0   |
| 2011-07-09 20:00 | 3.0   |
| 2011-07-09 21:00 | 3.0   |
| 2011-07-09 22:00 | 2.0   |
| 2011-07-09 23:00 | 5.0   |
| 2011-07-10 00:00 | 7.0   |
| 2011-07-10 01:00 | 37.0  |
| 2011-07-10 02:00 | 37.0  |
| 2011-07-10 03:00 | 37.0  |
| 2011-07-10 04:00 | 37.0  |
| 2011-07-10 05:00 | 34.0  |
| 2011-07-10 06:00 | 34.0  |
| 2011-07-10 07:00 | 35.0  |
| 2011-07-10 08:00 | 34.0  |
| 2011-07-10 09:00 | 36.0  |
| 2011-07-10 10:00 | 35.0  |
| 2011-07-10 11:00 | 41.0  |
| 2011-07-10 12:00 | 49.0  |
| 2011-07-10 13:00 | 63.0  |
| 2011-07-10 14:00 | 78.0  |
| 2011-07-10 15:00 | 92.0  |
| 2011-07-10 16:00 | 103.0 |
| 2011-07-10 17:00 | 81.0  |
| 2011-07-10 18:00 | 64.0  |
| 2011-07-10 19:00 | 47.0  |
| 2011-07-10 20:00 | 33.0  |
| 2011-07-10 21:00 | 23.0  |
| 2011-07-10 22:00 | 17.0  |
| 2011-07-10 23:00 | 19.0  |
| 2011-07-11 00:00 | 20.0  |
| 2011-07-11 01:00 | 11.0  |
| 2011-07-11 02:00 | 14.0  |
| 2011-07-11 03:00 | 14.0  |
| 2011-07-11 04:00 | 14.0  |
| 2011-07-11 05:00 | 18.0  |
| 2011-07-11 06:00 | 19.0  |
| 2011-07-11 07:00 | 22.0  |
| 2011-07-11 08:00 | 24.0  |
| 2011-07-11 09:00 | 28.0  |
| 2011-07-11 10:00 | 33.0  |
| 2011-07-11 11:00 | 41.0  |
| 2011-07-11 12:00 | 51.0  |
| 2011-07-11 13:00 | 60.0  |
| 2011-07-11 14:00 | 67.0  |
| 2011-07-11 15:00 | 91.0  |
| 2011-07-11 16:00 | 103.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-07-11 17:00 | 111.0 |
| 2011-07-11 18:00 | 116.0 |
| 2011-07-11 19:00 | 124.0 |
| 2011-07-11 20:00 | 118.0 |
| 2011-07-11 21:00 | 106.0 |
| 2011-07-11 22:00 | 102.0 |
| 2011-07-11 23:00 | 105.0 |
| 2011-07-12 00:00 | 116.0 |
| 2011-07-12 01:00 | 137.0 |
| 2011-07-12 02:00 | 137.0 |
| 2011-07-12 03:00 | 140.0 |
| 2011-07-12 04:00 | 144.0 |
| 2011-07-12 05:00 | 148.0 |
| 2011-07-12 06:00 | 151.0 |
| 2011-07-12 07:00 | 154.0 |
| 2011-07-12 08:00 | 167.0 |
| 2011-07-12 09:00 | 179.0 |
| 2011-07-12 10:00 | 191.0 |
| 2011-07-12 11:00 | 184.0 |
| 2011-07-12 12:00 | 178.0 |
| 2011-07-12 13:00 | 167.0 |
| 2011-07-12 14:00 | 180.0 |
| 2011-07-12 15:00 | 184.0 |
| 2011-07-12 16:00 | 187.0 |
| 2011-07-12 17:00 | 196.0 |
| 2011-07-12 18:00 | 202.0 |
| 2011-07-12 19:00 | 206.0 |
| 2011-07-12 20:00 | 187.0 |
| 2011-07-12 21:00 | 174.0 |
| 2011-07-12 22:00 | 149.0 |
| 2011-07-12 23:00 | 145.0 |
| 2011-07-13 00:00 | 135.0 |
| 2011-07-13 01:00 | 29.0  |
| 2011-07-13 02:00 | 24.0  |
| 2011-07-13 03:00 | 18.0  |
| 2011-07-13 04:00 | 14.0  |
| 2011-07-13 05:00 | 10.0  |
| 2011-07-13 06:00 | 7.0   |
| 2011-07-13 07:00 | 3.0   |
| 2011-07-13 08:00 | 3.0   |
| 2011-07-13 09:00 | 3.0   |
| 2011-07-13 10:00 | 2.0   |
| 2011-07-13 11:00 | 3.0   |
| 2011-07-13 12:00 | 5.0   |
| 2011-07-13 13:00 | 8.0   |
| 2011-07-13 14:00 | 9.0   |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-07-13 15:00 | 10.0  |
| 2011-07-13 16:00 | 13.0  |
| 2011-07-13 17:00 | 11.0  |
| 2011-07-13 18:00 | 10.0  |
| 2011-07-13 19:00 | 9.0   |
| 2011-07-13 20:00 | 5.0   |
| 2011-07-13 21:00 | 2.0   |
| 2011-07-13 22:00 | 3.0   |
| 2011-07-13 23:00 | 2.0   |
| 2011-07-14 00:00 | 3.0   |
| 2011-07-14 01:00 | 55.0  |
| 2011-07-14 02:00 | 58.0  |
| 2011-07-14 03:00 | 66.0  |
| 2011-07-14 04:00 | 75.0  |
| 2011-07-14 05:00 | 79.0  |
| 2011-07-14 06:00 | 82.0  |
| 2011-07-14 07:00 | 89.0  |
| 2011-07-14 08:00 | 95.0  |
| 2011-07-14 09:00 | 103.0 |
| 2011-07-14 10:00 | 104.0 |
| 2011-07-14 11:00 | 112.0 |
| 2011-07-14 12:00 | 119.0 |
| 2011-07-14 13:00 | 124.0 |
| 2011-07-14 14:00 | 122.0 |
| 2011-07-14 15:00 | 118.0 |
| 2011-07-14 16:00 | 114.0 |
| 2011-07-14 17:00 | 110.0 |
| 2011-07-14 18:00 | 111.0 |
| 2011-07-14 19:00 | 107.0 |
| 2011-07-14 20:00 | 98.0  |
| 2011-07-14 21:00 | 92.0  |
| 2011-07-14 22:00 | 82.0  |
| 2011-07-14 23:00 | 80.0  |
| 2011-07-15 00:00 | 69.0  |
| 2011-07-15 01:00 | 114.0 |
| 2011-07-15 02:00 | 114.0 |
| 2011-07-15 03:00 | 114.0 |
| 2011-07-15 04:00 | 112.0 |
| 2011-07-15 05:00 | 115.0 |
| 2011-07-15 06:00 | 117.0 |
| 2011-07-15 07:00 | 118.0 |
| 2011-07-15 08:00 | 131.0 |
| 2011-07-15 09:00 | 143.0 |
| 2011-07-15 10:00 | 154.0 |
| 2011-07-15 11:00 | 156.0 |
| 2011-07-15 12:00 | 152.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-07-15 13:00 | 149.0 |
| 2011-07-15 14:00 | 153.0 |
| 2011-07-15 15:00 | 160.0 |
| 2011-07-15 16:00 | 163.0 |
| 2011-07-15 17:00 | 161.0 |
| 2011-07-15 18:00 | 165.0 |
| 2011-07-15 19:00 | 161.0 |
| 2011-07-15 20:00 | 129.0 |
| 2011-07-15 21:00 | 107.0 |
| 2011-07-15 22:00 | 89.0  |
| 2011-07-15 23:00 | 80.0  |
| 2011-07-16 00:00 | 80.0  |
| 2011-07-16 01:00 | 99.0  |
| 2011-07-16 02:00 | 90.0  |
| 2011-07-16 03:00 | 83.0  |
| 2011-07-16 04:00 | 79.0  |
| 2011-07-16 05:00 | 76.0  |
| 2011-07-16 06:00 | 73.0  |
| 2011-07-16 07:00 | 76.0  |
| 2011-07-16 08:00 | 78.0  |
| 2011-07-16 09:00 | 82.0  |
| 2011-07-16 10:00 | 83.0  |
| 2011-07-16 11:00 | 85.0  |
| 2011-07-16 12:00 | 82.0  |
| 2011-07-16 13:00 | 83.0  |
| 2011-07-16 14:00 | 73.0  |
| 2011-07-16 15:00 | 63.0  |
| 2011-07-16 16:00 | 58.0  |
| 2011-07-16 17:00 | 51.0  |
| 2011-07-16 18:00 | 50.0  |
| 2011-07-16 19:00 | 43.0  |
| 2011-07-16 20:00 | 31.0  |
| 2011-07-16 21:00 | 22.0  |
| 2011-07-16 22:00 | 15.0  |
| 2011-07-16 23:00 | 10.0  |
| 2011-07-17 00:00 | 11.0  |
| 2011-07-17 01:00 | 18.0  |
| 2011-07-17 02:00 | 18.0  |
| 2011-07-17 03:00 | 17.0  |
| 2011-07-17 04:00 | 17.0  |
| 2011-07-17 05:00 | 13.0  |
| 2011-07-17 06:00 | 10.0  |
| 2011-07-17 07:00 | 7.0   |
| 2011-07-17 08:00 | 6.0   |
| 2011-07-17 09:00 | 7.0   |
| 2011-07-17 10:00 | 6.0   |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-07-17 11:00 | 15.0  |
| 2011-07-17 12:00 | 23.0  |
| 2011-07-17 13:00 | 36.0  |
| 2011-07-17 14:00 | 43.0  |
| 2011-07-17 15:00 | 56.0  |
| 2011-07-17 16:00 | 77.0  |
| 2011-07-17 17:00 | 85.0  |
| 2011-07-17 18:00 | 91.0  |
| 2011-07-17 19:00 | 99.0  |
| 2011-07-17 20:00 | 82.0  |
| 2011-07-17 21:00 | 70.0  |
| 2011-07-17 22:00 | 62.0  |
| 2011-07-17 23:00 | 62.0  |
| 2011-07-18 00:00 | 62.0  |
| 2011-07-18 01:00 | 81.0  |
| 2011-07-18 02:00 | 85.0  |
| 2011-07-18 03:00 | 90.0  |
| 2011-07-18 04:00 | 93.0  |
| 2011-07-18 05:00 | 83.0  |
| 2011-07-18 06:00 | 74.0  |
| 2011-07-18 07:00 | 66.0  |
| 2011-07-18 08:00 | 69.0  |
| 2011-07-18 09:00 | 67.0  |
| 2011-07-18 10:00 | 71.0  |
| 2011-07-18 11:00 | 85.0  |
| 2011-07-18 12:00 | 101.0 |
| 2011-07-18 13:00 | 122.0 |
| 2011-07-18 14:00 | 119.0 |
| 2011-07-18 15:00 | 107.0 |
| 2011-07-18 16:00 | 100.0 |
| 2011-07-18 17:00 | 86.0  |
| 2011-07-18 18:00 | 68.0  |
| 2011-07-18 19:00 | 56.0  |
| 2011-07-18 20:00 | 41.0  |
| 2011-07-18 21:00 | 26.0  |
| 2011-07-18 22:00 | 18.0  |
| 2011-07-18 23:00 | 15.0  |
| 2011-07-19 00:00 | 14.0  |
| 2011-07-19 01:00 | 6.0   |
| 2011-07-19 02:00 | 4.0   |
| 2011-07-19 03:00 | 2.0   |
| 2011-07-19 04:00 | 2.0   |
| 2011-07-19 05:00 | 1.0   |
| 2011-07-19 06:00 | 1.0   |
| 2011-07-19 07:00 | 2.0   |
| 2011-07-19 08:00 | 1.0   |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-07-19 09:00 | 0.0   |
| 2011-07-19 10:00 | 0.0   |
| 2011-07-19 11:00 | 1.0   |
| 2011-07-19 12:00 | 3.0   |
| 2011-07-19 13:00 | 6.0   |
| 2011-07-19 14:00 | 7.0   |
| 2011-07-19 15:00 | 10.0  |
| 2011-07-19 16:00 | 14.0  |
| 2011-07-19 17:00 | 12.0  |
| 2011-07-19 18:00 | 12.0  |
| 2011-07-19 19:00 | 11.0  |
| 2011-07-19 20:00 | 8.0   |
| 2011-07-19 21:00 | 5.0   |
| 2011-07-19 22:00 | 4.0   |
| 2011-07-19 23:00 | 3.0   |
| 2011-07-20 00:00 | 2.0   |
| 2011-07-20 01:00 | 2.0   |
| 2011-07-20 02:00 | 1.0   |
| 2011-07-20 03:00 | 0.0   |
| 2011-07-20 04:00 | 0.0   |
| 2011-07-20 05:00 | 0.0   |
| 2011-07-20 06:00 | 0.0   |
| 2011-07-20 07:00 | 0.0   |
| 2011-07-20 08:00 | 0.0   |
| 2011-07-20 09:00 | 0.0   |
| 2011-07-20 10:00 | 1.0   |
| 2011-07-20 11:00 | 1.0   |
| 2011-07-20 12:00 | 3.0   |
| 2011-07-20 13:00 | 4.0   |
| 2011-07-20 14:00 | 3.0   |
| 2011-07-20 15:00 | 5.0   |
| 2011-07-20 16:00 | 6.0   |
| 2011-07-20 17:00 | 10.0  |
| 2011-07-20 18:00 | 15.0  |
| 2011-07-20 19:00 | 29.0  |
| 2011-07-20 20:00 | 24.0  |
| 2011-07-20 21:00 | 19.0  |
| 2011-07-20 22:00 | 16.0  |
| 2011-07-20 23:00 | 19.0  |
| 2011-07-21 00:00 | 29.0  |
| 2011-07-21 01:00 | 146.0 |
| 2011-07-21 02:00 | 143.0 |
| 2011-07-21 03:00 | 142.0 |
| 2011-07-21 04:00 | 141.0 |
| 2011-07-21 05:00 | 104.0 |
| 2011-07-21 06:00 | 77.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-07-21 07:00 | 60.0  |
| 2011-07-21 08:00 | 54.0  |
| 2011-07-21 09:00 | 43.0  |
| 2011-07-21 10:00 | 41.0  |
| 2011-07-21 11:00 | 36.0  |
| 2011-07-21 12:00 | 35.0  |
| 2011-07-21 13:00 | 32.0  |
| 2011-07-21 14:00 | 39.0  |
| 2011-07-21 15:00 | 53.0  |
| 2011-07-21 16:00 | 66.0  |
| 2011-07-21 17:00 | 71.0  |
| 2011-07-21 18:00 | 80.0  |
| 2011-07-21 19:00 | 84.0  |
| 2011-07-21 20:00 | 107.0 |
| 2011-07-21 21:00 | 120.0 |
| 2011-07-21 22:00 | 137.0 |
| 2011-07-21 23:00 | 171.0 |
| 2011-07-22 00:00 | 206.0 |
| 2011-07-22 01:00 | 251.0 |
| 2011-07-22 02:00 | 250.0 |
| 2011-07-22 03:00 | 244.0 |
| 2011-07-22 04:00 | 219.0 |
| 2011-07-22 05:00 | 167.0 |
| 2011-07-22 06:00 | 118.0 |
| 2011-07-22 07:00 | 79.0  |
| 2011-07-22 08:00 | 57.0  |
| 2011-07-22 09:00 | 42.0  |
| 2011-07-22 10:00 | 29.0  |
| 2011-07-22 11:00 | 25.0  |
| 2011-07-22 12:00 | 18.0  |
| 2011-07-22 13:00 | 14.0  |
| 2011-07-22 14:00 | 9.0   |
| 2011-07-22 15:00 | 8.0   |
| 2011-07-22 16:00 | 6.0   |
| 2011-07-22 17:00 | 7.0   |
| 2011-07-22 18:00 | 8.0   |
| 2011-07-22 19:00 | 11.0  |
| 2011-07-22 20:00 | 7.0   |
| 2011-07-22 21:00 | 5.0   |
| 2011-07-22 22:00 | 5.0   |
| 2011-07-22 23:00 | 5.0   |
| 2011-07-23 00:00 | 11.0  |
| 2011-07-23 01:00 | 4.0   |
| 2011-07-23 02:00 | 2.0   |
| 2011-07-23 03:00 | 1.0   |
| 2011-07-23 04:00 | 1.0   |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-07-23 05:00 | 0.0   |
| 2011-07-23 06:00 | 0.0   |
| 2011-07-23 07:00 | 0.0   |
| 2011-07-23 08:00 | 0.0   |
| 2011-07-23 09:00 | 1.0   |
| 2011-07-23 10:00 | 1.0   |
| 2011-07-23 11:00 | 8.0   |
| 2011-07-23 12:00 | 23.0  |
| 2011-07-23 13:00 | 40.0  |
| 2011-07-23 14:00 | 63.0  |
| 2011-07-23 15:00 | 89.0  |
| 2011-07-23 16:00 | 118.0 |
| 2011-07-23 17:00 | 131.0 |
| 2011-07-23 18:00 | 160.0 |
| 2011-07-23 19:00 | 176.0 |
| 2011-07-23 20:00 | 171.0 |
| 2011-07-23 21:00 | 162.0 |
| 2011-07-23 22:00 | 158.0 |
| 2011-07-23 23:00 | 105.0 |
| 2011-07-24 00:00 | 70.0  |
| 2011-07-24 01:00 | 76.0  |
| 2011-07-24 02:00 | 55.0  |
| 2011-07-24 03:00 | 42.0  |
| 2011-07-24 04:00 | 32.0  |
| 2011-07-24 05:00 | 26.0  |
| 2011-07-24 06:00 | 26.0  |
| 2011-07-24 07:00 | 26.0  |
| 2011-07-24 08:00 | 40.0  |
| 2011-07-24 09:00 | 57.0  |
| 2011-07-24 10:00 | 81.0  |
| 2011-07-24 11:00 | 86.0  |
| 2011-07-24 12:00 | 96.0  |
| 2011-07-24 13:00 | 107.0 |
| 2011-07-24 14:00 | 105.0 |
| 2011-07-24 15:00 | 107.0 |
| 2011-07-24 16:00 | 105.0 |
| 2011-07-24 17:00 | 101.0 |
| 2011-07-24 18:00 | 97.0  |
| 2011-07-24 19:00 | 96.0  |
| 2011-07-24 20:00 | 61.0  |
| 2011-07-24 21:00 | 32.0  |
| 2011-07-24 22:00 | 17.0  |
| 2011-07-24 23:00 | 12.0  |
| 2011-07-25 00:00 | 12.0  |
| 2011-07-25 01:00 | 11.0  |
| 2011-07-25 02:00 | 13.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-07-25 03:00 | 16.0 |
| 2011-07-25 04:00 | 15.0 |
| 2011-07-25 05:00 | 14.0 |
| 2011-07-25 06:00 | 15.0 |
| 2011-07-25 07:00 | 14.0 |
| 2011-07-25 08:00 | 16.0 |
| 2011-07-25 09:00 | 17.0 |
| 2011-07-25 10:00 | 18.0 |
| 2011-07-25 11:00 | 14.0 |
| 2011-07-25 12:00 | 15.0 |
| 2011-07-25 13:00 | 16.0 |
| 2011-07-25 14:00 | 15.0 |
| 2011-07-25 15:00 | 16.0 |
| 2011-07-25 16:00 | 16.0 |
| 2011-07-25 17:00 | 12.0 |
| 2011-07-25 18:00 | 13.0 |
| 2011-07-25 19:00 | 14.0 |
| 2011-07-25 20:00 | 15.0 |
| 2011-07-25 21:00 | 20.0 |
| 2011-07-25 22:00 | 31.0 |
| 2011-07-25 23:00 | 25.0 |
| 2011-07-26 00:00 | 22.0 |
| 2011-07-26 01:00 | 11.0 |
| 2011-07-26 02:00 | 11.0 |
| 2011-07-26 03:00 | 11.0 |
| 2011-07-26 04:00 | 12.0 |
| 2011-07-26 05:00 | 8.0  |
| 2011-07-26 06:00 | 7.0  |
| 2011-07-26 07:00 | 8.0  |
| 2011-07-26 08:00 | 9.0  |
| 2011-07-26 09:00 | 11.0 |
| 2011-07-26 10:00 | 13.0 |
| 2011-07-26 11:00 | 19.0 |
| 2011-07-26 12:00 | 32.0 |
| 2011-07-26 13:00 | 47.0 |
| 2011-07-26 14:00 | 52.0 |
| 2011-07-26 15:00 | 64.0 |
| 2011-07-26 16:00 | 73.0 |
| 2011-07-26 17:00 | 59.0 |
| 2011-07-26 18:00 | 52.0 |
| 2011-07-26 19:00 | 44.0 |
| 2011-07-26 20:00 | 33.0 |
| 2011-07-26 21:00 | 23.0 |
| 2011-07-26 22:00 | 17.0 |
| 2011-07-26 23:00 | 16.0 |
| 2011-07-27 00:00 | 15.0 |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-07-27 01:00 | 19.0 |
| 2011-07-27 02:00 | 18.0 |
| 2011-07-27 03:00 | 17.0 |
| 2011-07-27 04:00 | 14.0 |
| 2011-07-27 05:00 | 14.0 |
| 2011-07-27 06:00 | 14.0 |
| 2011-07-27 07:00 | 13.0 |
| 2011-07-27 08:00 | 12.0 |
| 2011-07-27 09:00 | 11.0 |
| 2011-07-27 10:00 | 9.0  |
| 2011-07-27 11:00 | 7.0  |
| 2011-07-27 12:00 | 6.0  |
| 2011-07-27 13:00 | 4.0  |
| 2011-07-27 14:00 | 4.0  |
| 2011-07-27 15:00 | 6.0  |
| 2011-07-27 16:00 | 9.0  |
| 2011-07-27 17:00 | 7.0  |
| 2011-07-27 18:00 | 6.0  |
| 2011-07-27 19:00 | 3.0  |
| 2011-07-27 20:00 | 3.0  |
| 2011-07-27 21:00 | 1.0  |
| 2011-07-27 22:00 | 0.0  |
| 2011-07-27 23:00 | 0.0  |
| 2011-07-28 00:00 | 0.0  |
| 2011-07-28 01:00 | 4.0  |
| 2011-07-28 02:00 | 3.0  |
| 2011-07-28 03:00 | 3.0  |
| 2011-07-28 04:00 | 3.0  |
| 2011-07-28 05:00 | 5.0  |
| 2011-07-28 06:00 | 5.0  |
| 2011-07-28 07:00 | 6.0  |
| 2011-07-28 08:00 | 5.0  |
| 2011-07-28 09:00 | 7.0  |
| 2011-07-28 10:00 | 6.0  |
| 2011-07-28 11:00 | 6.0  |
| 2011-07-28 12:00 | 9.0  |
| 2011-07-28 13:00 | 11.0 |
| 2011-07-28 14:00 | 10.0 |
| 2011-07-28 15:00 | 10.0 |
| 2011-07-28 16:00 | 12.0 |
| 2011-07-28 17:00 | 11.0 |
| 2011-07-28 18:00 | 14.0 |
| 2011-07-28 19:00 | 15.0 |
| 2011-07-28 20:00 | 10.0 |
| 2011-07-28 21:00 | 6.0  |
| 2011-07-28 22:00 | 4.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-07-28 23:00 | 1.0   |
| 2011-07-29 00:00 | 0.0   |
| 2011-07-29 01:00 | 0.0   |
| 2011-07-29 02:00 | 0.0   |
| 2011-07-29 03:00 | 0.0   |
| 2011-07-29 04:00 | 0.0   |
| 2011-07-29 05:00 | 0.0   |
| 2011-07-29 06:00 | 0.0   |
| 2011-07-29 07:00 | 1.0   |
| 2011-07-29 08:00 | 1.0   |
| 2011-07-29 09:00 | 1.0   |
| 2011-07-29 10:00 | 2.0   |
| 2011-07-29 11:00 | 5.0   |
| 2011-07-29 12:00 | 9.0   |
| 2011-07-29 13:00 | 14.0  |
| 2011-07-29 14:00 | 21.0  |
| 2011-07-29 15:00 | 34.0  |
| 2011-07-29 16:00 | 47.0  |
| 2011-07-29 17:00 | 48.0  |
| 2011-07-29 18:00 | 54.0  |
| 2011-07-29 19:00 | 59.0  |
| 2011-07-29 20:00 | 62.0  |
| 2011-07-29 21:00 | 62.0  |
| 2011-07-29 22:00 | 59.0  |
| 2011-07-29 23:00 | 65.0  |
| 2011-07-30 00:00 | 66.0  |
| 2011-07-30 01:00 | 50.0  |
| 2011-07-30 02:00 | 53.0  |
| 2011-07-30 03:00 | 58.0  |
| 2011-07-30 04:00 | 64.0  |
| 2011-07-30 05:00 | 70.0  |
| 2011-07-30 06:00 | 70.0  |
| 2011-07-30 07:00 | 75.0  |
| 2011-07-30 08:00 | 79.0  |
| 2011-07-30 09:00 | 82.0  |
| 2011-07-30 10:00 | 89.0  |
| 2011-07-30 11:00 | 100.0 |
| 2011-07-30 12:00 | 103.0 |
| 2011-07-30 13:00 | 112.0 |
| 2011-07-30 14:00 | 99.0  |
| 2011-07-30 15:00 | 83.0  |
| 2011-07-30 16:00 | 73.0  |
| 2011-07-30 17:00 | 64.0  |
| 2011-07-30 18:00 | 59.0  |
| 2011-07-30 19:00 | 52.0  |
| 2011-07-30 20:00 | 48.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-07-30 21:00 | 44.0 |
| 2011-07-30 22:00 | 46.0 |
| 2011-07-30 23:00 | 42.0 |
| 2011-07-31 00:00 | 40.0 |
| 2011-07-31 01:00 | 10.0 |
| 2011-07-31 02:00 | 8.0  |
| 2011-07-31 03:00 | 7.0  |
| 2011-07-31 04:00 | 5.0  |
| 2011-07-31 05:00 | 3.0  |
| 2011-07-31 06:00 | 3.0  |
| 2011-07-31 07:00 | 4.0  |
| 2011-07-31 08:00 | 4.0  |
| 2011-07-31 09:00 | 7.0  |
| 2011-07-31 10:00 | 10.0 |
| 2011-07-31 11:00 | 12.0 |
| 2011-07-31 12:00 | 11.0 |
| 2011-07-31 13:00 | 12.0 |
| 2011-07-31 14:00 | 14.0 |
| 2011-07-31 15:00 | 16.0 |
| 2011-07-31 16:00 | 21.0 |
| 2011-07-31 17:00 | 19.0 |
| 2011-07-31 18:00 | 17.0 |
| 2011-07-31 19:00 | 19.0 |
| 2011-07-31 20:00 | 10.0 |
| 2011-07-31 21:00 | 6.0  |
| 2011-07-31 22:00 | 4.0  |
| 2011-07-31 23:00 | 2.0  |
| 2011-08-01 00:00 | 2.0  |
| 2011-08-01 01:00 | 1.0  |
| 2011-08-01 02:00 | 1.0  |
| 2011-08-01 03:00 | 1.0  |
| 2011-08-01 04:00 | 1.0  |
| 2011-08-01 05:00 | 1.0  |
| 2011-08-01 06:00 | 1.0  |
| 2011-08-01 07:00 | 1.0  |
| 2011-08-01 08:00 | 2.0  |
| 2011-08-01 09:00 | 2.0  |
| 2011-08-01 10:00 | 4.0  |
| 2011-08-01 11:00 | 4.0  |
| 2011-08-01 12:00 | 10.0 |
| 2011-08-01 13:00 | 13.0 |
| 2011-08-01 14:00 | 14.0 |
| 2011-08-01 15:00 | 19.0 |
| 2011-08-01 16:00 | 22.0 |
| 2011-08-01 17:00 | 26.0 |
| 2011-08-01 18:00 | 31.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-08-01 19:00 | 37.0  |
| 2011-08-01 20:00 | 33.0  |
| 2011-08-01 21:00 | 30.0  |
| 2011-08-01 22:00 | 28.0  |
| 2011-08-01 23:00 | 26.0  |
| 2011-08-02 00:00 | 28.0  |
| 2011-08-02 01:00 | 19.0  |
| 2011-08-02 02:00 | 18.0  |
| 2011-08-02 03:00 | 15.0  |
| 2011-08-02 04:00 | 14.0  |
| 2011-08-02 05:00 | 14.0  |
| 2011-08-02 06:00 | 14.0  |
| 2011-08-02 07:00 | 15.0  |
| 2011-08-02 08:00 | 18.0  |
| 2011-08-02 09:00 | 26.0  |
| 2011-08-02 10:00 | 33.0  |
| 2011-08-02 11:00 | 46.0  |
| 2011-08-02 12:00 | 56.0  |
| 2011-08-02 13:00 | 75.0  |
| 2011-08-02 14:00 | 86.0  |
| 2011-08-02 15:00 | 97.0  |
| 2011-08-02 16:00 | 114.0 |
| 2011-08-02 17:00 | 113.0 |
| 2011-08-02 18:00 | 102.0 |
| 2011-08-02 19:00 | 96.0  |
| 2011-08-02 20:00 | 87.0  |
| 2011-08-02 21:00 | 73.0  |
| 2011-08-02 22:00 | 62.0  |
| 2011-08-02 23:00 | 63.0  |
| 2011-08-03 00:00 | 66.0  |
| 2011-08-03 01:00 | 45.0  |
| 2011-08-03 02:00 | 43.0  |
| 2011-08-03 03:00 | 39.0  |
| 2011-08-03 04:00 | 35.0  |
| 2011-08-03 05:00 | 35.0  |
| 2011-08-03 06:00 | 35.0  |
| 2011-08-03 07:00 | 34.0  |
| 2011-08-03 08:00 | 38.0  |
| 2011-08-03 09:00 | 40.0  |
| 2011-08-03 10:00 | 41.0  |
| 2011-08-03 11:00 | 41.0  |
| 2011-08-03 12:00 | 44.0  |
| 2011-08-03 13:00 | 49.0  |
| 2011-08-03 14:00 | 46.0  |
| 2011-08-03 15:00 | 52.0  |
| 2011-08-03 16:00 | 55.0  |



## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-08-03 17:00 | 57.0 |
| 2011-08-03 18:00 | 54.0 |
| 2011-08-03 19:00 | 55.0 |
| 2011-08-03 20:00 | 48.0 |
| 2011-08-03 21:00 | 45.0 |
| 2011-08-03 22:00 | 41.0 |
| 2011-08-03 23:00 | 34.0 |
| 2011-08-04 00:00 | 30.0 |
| 2011-08-04 01:00 | 35.0 |
| 2011-08-04 02:00 | 31.0 |
| 2011-08-04 03:00 | 23.0 |
| 2011-08-04 04:00 | 22.0 |
| 2011-08-04 05:00 | 22.0 |
| 2011-08-04 06:00 | 21.0 |
| 2011-08-04 07:00 | 20.0 |
| 2011-08-04 08:00 | 22.0 |
| 2011-08-04 09:00 | 25.0 |
| 2011-08-04 10:00 | 27.0 |
| 2011-08-04 11:00 | 36.0 |
| 2011-08-04 12:00 | 46.0 |
| 2011-08-04 13:00 | 56.0 |
| 2011-08-04 14:00 | 64.0 |
| 2011-08-04 15:00 | 66.0 |
| 2011-08-04 16:00 | 73.0 |
| 2011-08-04 17:00 | 69.0 |
| 2011-08-04 18:00 | 61.0 |
| 2011-08-04 19:00 | 58.0 |
| 2011-08-04 20:00 | 45.0 |
| 2011-08-04 21:00 | 33.0 |
| 2011-08-04 22:00 | 22.0 |
| 2011-08-04 23:00 | 22.0 |
| 2011-08-05 00:00 | 22.0 |
| 2011-08-05 01:00 | 21.0 |
| 2011-08-05 02:00 | 18.0 |
| 2011-08-05 03:00 | 16.0 |
| 2011-08-05 04:00 | 15.0 |
| 2011-08-05 05:00 | 18.0 |
| 2011-08-05 06:00 | 19.0 |
| 2011-08-05 07:00 | 19.0 |
| 2011-08-05 08:00 | 20.0 |
| 2011-08-05 09:00 | 22.0 |
| 2011-08-05 10:00 | 27.0 |
| 2011-08-05 11:00 | 30.0 |
| 2011-08-05 12:00 | 29.0 |
| 2011-08-05 13:00 | 33.0 |
| 2011-08-05 14:00 | 39.0 |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-08-05 15:00 | 44.0 |
| 2011-08-05 16:00 | 56.0 |
| 2011-08-05 17:00 | 54.0 |
| 2011-08-05 18:00 | 56.0 |
| 2011-08-05 19:00 | 58.0 |
| 2011-08-05 20:00 | 38.0 |
| 2011-08-05 21:00 | 26.0 |
| 2011-08-05 22:00 | 14.0 |
| 2011-08-05 23:00 | 13.0 |
| 2011-08-06 00:00 | 9.0  |
| 2011-08-06 01:00 | 12.0 |
| 2011-08-06 02:00 | 10.0 |
| 2011-08-06 03:00 | 10.0 |
| 2011-08-06 04:00 | 9.0  |
| 2011-08-06 05:00 | 11.0 |
| 2011-08-06 06:00 | 10.0 |
| 2011-08-06 07:00 | 11.0 |
| 2011-08-06 08:00 | 16.0 |
| 2011-08-06 09:00 | 21.0 |
| 2011-08-06 10:00 | 26.0 |
| 2011-08-06 11:00 | 29.0 |
| 2011-08-06 12:00 | 32.0 |
| 2011-08-06 13:00 | 37.0 |
| 2011-08-06 14:00 | 39.0 |
| 2011-08-06 15:00 | 45.0 |
| 2011-08-06 16:00 | 50.0 |
| 2011-08-06 17:00 | 47.0 |
| 2011-08-06 18:00 | 43.0 |
| 2011-08-06 19:00 | 38.0 |
| 2011-08-06 20:00 | 38.0 |
| 2011-08-06 21:00 | 32.0 |
| 2011-08-06 22:00 | 29.0 |
| 2011-08-06 23:00 | 29.0 |
| 2011-08-07 00:00 | 26.0 |
| 2011-08-07 01:00 | 17.0 |
| 2011-08-07 02:00 | 15.0 |
| 2011-08-07 03:00 | 14.0 |
| 2011-08-07 04:00 | 14.0 |
| 2011-08-07 05:00 | 13.0 |
| 2011-08-07 06:00 | 13.0 |
| 2011-08-07 07:00 | 13.0 |
| 2011-08-07 08:00 | 14.0 |
| 2011-08-07 09:00 | 17.0 |
| 2011-08-07 10:00 | 19.0 |
| 2011-08-07 11:00 | 18.0 |
| 2011-08-07 12:00 | 18.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-08-07 13:00 | 19.0  |
| 2011-08-07 14:00 | 20.0  |
| 2011-08-07 15:00 | 26.0  |
| 2011-08-07 16:00 | 28.0  |
| 2011-08-07 17:00 | 27.0  |
| 2011-08-07 18:00 | 24.0  |
| 2011-08-07 19:00 | 25.0  |
| 2011-08-07 20:00 | 23.0  |
| 2011-08-07 21:00 | 22.0  |
| 2011-08-07 22:00 | 20.0  |
| 2011-08-07 23:00 | 22.0  |
| 2011-08-08 00:00 | 25.0  |
| 2011-08-08 01:00 | 40.0  |
| 2011-08-08 02:00 | 35.0  |
| 2011-08-08 03:00 | 35.0  |
| 2011-08-08 04:00 | 33.0  |
| 2011-08-08 05:00 | 40.0  |
| 2011-08-08 06:00 | 46.0  |
| 2011-08-08 07:00 | 58.0  |
| 2011-08-08 08:00 | 66.0  |
| 2011-08-08 09:00 | 76.0  |
| 2011-08-08 10:00 | 89.0  |
| 2011-08-08 11:00 | 97.0  |
| 2011-08-08 12:00 | 108.0 |
| 2011-08-08 13:00 | 125.0 |
| 2011-08-08 14:00 | 126.0 |
| 2011-08-08 15:00 | 122.0 |
| 2011-08-08 16:00 | 119.0 |
| 2011-08-08 17:00 | 116.0 |
| 2011-08-08 18:00 | 111.0 |
| 2011-08-08 19:00 | 102.0 |
| 2011-08-08 20:00 | 92.0  |
| 2011-08-08 21:00 | 87.0  |
| 2011-08-08 22:00 | 87.0  |
| 2011-08-08 23:00 | 88.0  |
| 2011-08-09 00:00 | 93.0  |
| 2011-08-09 01:00 | 35.0  |
| 2011-08-09 02:00 | 28.0  |
| 2011-08-09 03:00 | 27.0  |
| 2011-08-09 04:00 | 32.0  |
| 2011-08-09 05:00 | 34.0  |
| 2011-08-09 06:00 | 40.0  |
| 2011-08-09 07:00 | 44.0  |
| 2011-08-09 08:00 | 48.0  |
| 2011-08-09 09:00 | 54.0  |
| 2011-08-09 10:00 | 56.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-08-09 11:00 | 56.0 |
| 2011-08-09 12:00 | 56.0 |
| 2011-08-09 13:00 | 55.0 |
| 2011-08-09 14:00 | 54.0 |
| 2011-08-09 15:00 | 58.0 |
| 2011-08-09 16:00 | 59.0 |
| 2011-08-09 17:00 | 59.0 |
| 2011-08-09 18:00 | 51.0 |
| 2011-08-09 19:00 | 51.0 |
| 2011-08-09 20:00 | 45.0 |
| 2011-08-09 21:00 | 40.0 |
| 2011-08-09 22:00 | 36.0 |
| 2011-08-09 23:00 | 32.0 |
| 2011-08-10 00:00 | 26.0 |
| 2011-08-10 01:00 | 25.0 |
| 2011-08-10 02:00 | 21.0 |
| 2011-08-10 03:00 | 19.0 |
| 2011-08-10 04:00 | 16.0 |
| 2011-08-10 05:00 | 14.0 |
| 2011-08-10 06:00 | 13.0 |
| 2011-08-10 07:00 | 11.0 |
| 2011-08-10 08:00 | 12.0 |
| 2011-08-10 09:00 | 15.0 |
| 2011-08-10 10:00 | 23.0 |
| 2011-08-10 11:00 | 23.0 |
| 2011-08-10 12:00 | 29.0 |
| 2011-08-10 13:00 | 35.0 |
| 2011-08-10 14:00 | 36.0 |
| 2011-08-10 15:00 | 39.0 |
| 2011-08-10 16:00 | 42.0 |
| 2011-08-10 17:00 | 41.0 |
| 2011-08-10 18:00 | 43.0 |
| 2011-08-10 19:00 | 45.0 |
| 2011-08-10 20:00 | 46.0 |
| 2011-08-10 21:00 | 39.0 |
| 2011-08-10 22:00 | 37.0 |
| 2011-08-10 23:00 | 39.0 |
| 2011-08-11 00:00 | 45.0 |
| 2011-08-11 01:00 | 59.0 |
| 2011-08-11 02:00 | 50.0 |
| 2011-08-11 03:00 | 45.0 |
| 2011-08-11 04:00 | 46.0 |
| 2011-08-11 05:00 | 42.0 |
| 2011-08-11 06:00 | 41.0 |
| 2011-08-11 07:00 | 39.0 |
| 2011-08-11 08:00 | 36.0 |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-08-11 09:00 | 35.0 |
| 2011-08-11 10:00 | 32.0 |
| 2011-08-11 11:00 | 33.0 |
| 2011-08-11 12:00 | 34.0 |
| 2011-08-11 13:00 | 36.0 |
| 2011-08-11 14:00 | 26.0 |
| 2011-08-11 15:00 | 24.0 |
| 2011-08-11 16:00 | 18.0 |
| 2011-08-11 17:00 | 15.0 |
| 2011-08-11 18:00 | 14.0 |
| 2011-08-11 19:00 | 14.0 |
| 2011-08-11 20:00 | 13.0 |
| 2011-08-11 21:00 | 11.0 |
| 2011-08-11 22:00 | 9.0  |
| 2011-08-11 23:00 | 7.0  |
| 2011-08-12 00:00 | 10.0 |
| 2011-08-12 01:00 | 6.0  |
| 2011-08-12 02:00 | 4.0  |
| 2011-08-12 03:00 | 2.0  |
| 2011-08-12 04:00 | 4.0  |
| 2011-08-12 05:00 | 3.0  |
| 2011-08-12 06:00 | 5.0  |
| 2011-08-12 07:00 | 5.0  |
| 2011-08-12 08:00 | 6.0  |
| 2011-08-12 09:00 | 7.0  |
| 2011-08-12 10:00 | 9.0  |
| 2011-08-12 11:00 | 10.0 |
| 2011-08-12 12:00 | 10.0 |
| 2011-08-12 13:00 | 11.0 |
| 2011-08-12 14:00 | 15.0 |
| 2011-08-12 15:00 | 18.0 |
| 2011-08-12 16:00 | 22.0 |
| 2011-08-12 17:00 | 20.0 |
| 2011-08-12 18:00 | 18.0 |
| 2011-08-12 19:00 | 18.0 |
| 2011-08-12 20:00 | 13.0 |
| 2011-08-12 21:00 | 12.0 |
| 2011-08-12 22:00 | 9.0  |
| 2011-08-12 23:00 | 9.0  |
| 2011-08-13 00:00 | 6.0  |
| 2011-08-13 01:00 | 12.0 |
| 2011-08-13 02:00 | 11.0 |
| 2011-08-13 03:00 | 10.0 |
| 2011-08-13 04:00 | 8.0  |
| 2011-08-13 05:00 | 6.0  |
| 2011-08-13 06:00 | 3.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-08-13 07:00 | 3.0  |
| 2011-08-13 08:00 | 2.0  |
| 2011-08-13 09:00 | 4.0  |
| 2011-08-13 10:00 | 6.0  |
| 2011-08-13 11:00 | 8.0  |
| 2011-08-13 12:00 | 13.0 |
| 2011-08-13 13:00 | 22.0 |
| 2011-08-13 14:00 | 22.0 |
| 2011-08-13 15:00 | 25.0 |
| 2011-08-13 16:00 | 30.0 |
| 2011-08-13 17:00 | 22.0 |
| 2011-08-13 18:00 | 19.0 |
| 2011-08-13 19:00 | 18.0 |
| 2011-08-13 20:00 | 11.0 |
| 2011-08-13 21:00 | 7.0  |
| 2011-08-13 22:00 | 5.0  |
| 2011-08-13 23:00 | 4.0  |
| 2011-08-14 00:00 | 2.0  |
| 2011-08-14 01:00 | 7.0  |
| 2011-08-14 02:00 | 8.0  |
| 2011-08-14 03:00 | 8.0  |
| 2011-08-14 04:00 | 9.0  |
| 2011-08-14 05:00 | 9.0  |
| 2011-08-14 06:00 | 9.0  |
| 2011-08-14 07:00 | 8.0  |
| 2011-08-14 08:00 | 8.0  |
| 2011-08-14 09:00 | 9.0  |
| 2011-08-14 10:00 | 10.0 |
| 2011-08-14 11:00 | 18.0 |
| 2011-08-14 12:00 | 26.0 |
| 2011-08-14 13:00 | 36.0 |
| 2011-08-14 14:00 | 33.0 |
| 2011-08-14 15:00 | 29.0 |
| 2011-08-14 16:00 | 31.0 |
| 2011-08-14 17:00 | 25.0 |
| 2011-08-14 18:00 | 24.0 |
| 2011-08-14 19:00 | 18.0 |
| 2011-08-14 20:00 | 14.0 |
| 2011-08-14 21:00 | 12.0 |
| 2011-08-14 22:00 | 9.0  |
| 2011-08-14 23:00 | 9.0  |
| 2011-08-15 00:00 | 9.0  |
| 2011-08-15 01:00 | 7.0  |
| 2011-08-15 02:00 | 5.0  |
| 2011-08-15 03:00 | 4.0  |
| 2011-08-15 04:00 | 3.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-08-15 05:00 | 2.0   |
| 2011-08-15 06:00 | 1.0   |
| 2011-08-15 07:00 | 1.0   |
| 2011-08-15 08:00 | 0.0   |
| 2011-08-15 09:00 | 0.0   |
| 2011-08-15 10:00 | 0.0   |
| 2011-08-15 11:00 | 0.0   |
| 2011-08-15 12:00 | 5.0   |
| 2011-08-15 13:00 | 8.0   |
| 2011-08-15 14:00 | 10.0  |
| 2011-08-15 15:00 | 16.0  |
| 2011-08-15 16:00 | 25.0  |
| 2011-08-15 17:00 | 34.0  |
| 2011-08-15 18:00 | 39.0  |
| 2011-08-15 19:00 | 44.0  |
| 2011-08-15 20:00 | 34.0  |
| 2011-08-15 21:00 | 26.0  |
| 2011-08-15 22:00 | 19.0  |
| 2011-08-15 23:00 | 29.0  |
| 2011-08-16 00:00 | 48.0  |
| 2011-08-16 01:00 | 48.0  |
| 2011-08-16 02:00 | 44.0  |
| 2011-08-16 03:00 | 45.0  |
| 2011-08-16 04:00 | 47.0  |
| 2011-08-16 05:00 | 58.0  |
| 2011-08-16 06:00 | 76.0  |
| 2011-08-16 07:00 | 102.0 |
| 2011-08-16 08:00 | 90.0  |
| 2011-08-16 09:00 | 77.0  |
| 2011-08-16 10:00 | 70.0  |
| 2011-08-16 11:00 | 69.0  |
| 2011-08-16 12:00 | 70.0  |
| 2011-08-16 13:00 | 71.0  |
| 2011-08-16 14:00 | 62.0  |
| 2011-08-16 15:00 | 61.0  |
| 2011-08-16 16:00 | 53.0  |
| 2011-08-16 17:00 | 47.0  |
| 2011-08-16 18:00 | 40.0  |
| 2011-08-16 19:00 | 42.0  |
| 2011-08-16 20:00 | 36.0  |
| 2011-08-16 21:00 | 27.0  |
| 2011-08-16 22:00 | 23.0  |
| 2011-08-16 23:00 | 20.0  |
| 2011-08-17 00:00 | 21.0  |
| 2011-08-17 01:00 | 1.0   |
| 2011-08-17 02:00 | 1.0   |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-08-17 03:00 | 3.0  |
| 2011-08-17 04:00 | 3.0  |
| 2011-08-17 05:00 | 3.0  |
| 2011-08-17 06:00 | 5.0  |
| 2011-08-17 07:00 | 5.0  |
| 2011-08-17 08:00 | 6.0  |
| 2011-08-17 09:00 | 7.0  |
| 2011-08-17 10:00 | 8.0  |
| 2011-08-17 11:00 | 13.0 |
| 2011-08-17 12:00 | 14.0 |
| 2011-08-17 13:00 | 24.0 |
| 2011-08-17 14:00 | 30.0 |
| 2011-08-17 15:00 | 37.0 |
| 2011-08-17 16:00 | 49.0 |
| 2011-08-17 17:00 | 43.0 |
| 2011-08-17 18:00 | 40.0 |
| 2011-08-17 19:00 | 42.0 |
| 2011-08-17 20:00 | 26.0 |
| 2011-08-17 21:00 | 18.0 |
| 2011-08-17 22:00 | 14.0 |
| 2011-08-17 23:00 | 12.0 |
| 2011-08-18 00:00 | 12.0 |
| 2011-08-18 01:00 | 9.0  |
| 2011-08-18 02:00 | 9.0  |
| 2011-08-18 03:00 | 10.0 |
| 2011-08-18 04:00 | 11.0 |
| 2011-08-18 05:00 | 10.0 |
| 2011-08-18 06:00 | 9.0  |
| 2011-08-18 07:00 | 9.0  |
| 2011-08-18 08:00 | 10.0 |
| 2011-08-18 09:00 | 12.0 |
| 2011-08-18 10:00 | 14.0 |
| 2011-08-18 11:00 | 27.0 |
| 2011-08-18 12:00 | 41.0 |
| 2011-08-18 13:00 | 67.0 |
| 2011-08-18 14:00 | 73.0 |
| 2011-08-18 15:00 | 77.0 |
| 2011-08-18 16:00 | 82.0 |
| 2011-08-18 17:00 | 78.0 |
| 2011-08-18 18:00 | 73.0 |
| 2011-08-18 19:00 | 67.0 |
| 2011-08-18 20:00 | 60.0 |
| 2011-08-18 21:00 | 56.0 |
| 2011-08-18 22:00 | 48.0 |
| 2011-08-18 23:00 | 53.0 |
| 2011-08-19 00:00 | 54.0 |



## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-08-19 01:00 | 33.0 |
| 2011-08-19 02:00 | 33.0 |
| 2011-08-19 03:00 | 34.0 |
| 2011-08-19 04:00 | 32.0 |
| 2011-08-19 05:00 | 30.0 |
| 2011-08-19 06:00 | 26.0 |
| 2011-08-19 07:00 | 26.0 |
| 2011-08-19 08:00 | 30.0 |
| 2011-08-19 09:00 | 33.0 |
| 2011-08-19 10:00 | 43.0 |
| 2011-08-19 11:00 | 48.0 |
| 2011-08-19 12:00 | 54.0 |
| 2011-08-19 13:00 | 61.0 |
| 2011-08-19 14:00 | 62.0 |
| 2011-08-19 15:00 | 67.0 |
| 2011-08-19 16:00 | 73.0 |
| 2011-08-19 17:00 | 75.0 |
| 2011-08-19 18:00 | 75.0 |
| 2011-08-19 19:00 | 78.0 |
| 2011-08-19 20:00 | 65.0 |
| 2011-08-19 21:00 | 48.0 |
| 2011-08-19 22:00 | 39.0 |
| 2011-08-19 23:00 | 40.0 |
| 2011-08-20 00:00 | 39.0 |
| 2011-08-20 01:00 | 48.0 |
| 2011-08-20 02:00 | 40.0 |
| 2011-08-20 03:00 | 35.0 |
| 2011-08-20 04:00 | 28.0 |
| 2011-08-20 05:00 | 27.0 |
| 2011-08-20 06:00 | 24.0 |
| 2011-08-20 07:00 | 24.0 |
| 2011-08-20 08:00 | 27.0 |
| 2011-08-20 09:00 | 30.0 |
| 2011-08-20 10:00 | 32.0 |
| 2011-08-20 11:00 | 38.0 |
| 2011-08-20 12:00 | 45.0 |
| 2011-08-20 13:00 | 54.0 |
| 2011-08-20 14:00 | 51.0 |
| 2011-08-20 15:00 | 51.0 |
| 2011-08-20 16:00 | 55.0 |
| 2011-08-20 17:00 | 44.0 |
| 2011-08-20 18:00 | 33.0 |
| 2011-08-20 19:00 | 24.0 |
| 2011-08-20 20:00 | 19.0 |
| 2011-08-20 21:00 | 15.0 |
| 2011-08-20 22:00 | 10.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-08-20 23:00 | 8.0   |
| 2011-08-21 00:00 | 7.0   |
| 2011-08-21 01:00 | 8.0   |
| 2011-08-21 02:00 | 8.0   |
| 2011-08-21 03:00 | 6.0   |
| 2011-08-21 04:00 | 5.0   |
| 2011-08-21 05:00 | 5.0   |
| 2011-08-21 06:00 | 3.0   |
| 2011-08-21 07:00 | 1.0   |
| 2011-08-21 08:00 | 1.0   |
| 2011-08-21 09:00 | 1.0   |
| 2011-08-21 10:00 | 1.0   |
| 2011-08-21 11:00 | 2.0   |
| 2011-08-21 12:00 | 3.0   |
| 2011-08-21 13:00 | 5.0   |
| 2011-08-21 14:00 | 8.0   |
| 2011-08-21 15:00 | 11.0  |
| 2011-08-21 16:00 | 15.0  |
| 2011-08-21 17:00 | 15.0  |
| 2011-08-21 18:00 | 13.0  |
| 2011-08-21 19:00 | 14.0  |
| 2011-08-21 20:00 | 14.0  |
| 2011-08-21 21:00 | 14.0  |
| 2011-08-21 22:00 | 18.0  |
| 2011-08-21 23:00 | 21.0  |
| 2011-08-22 00:00 | 28.0  |
| 2011-08-22 01:00 | 49.0  |
| 2011-08-22 02:00 | 51.0  |
| 2011-08-22 03:00 | 56.0  |
| 2011-08-22 04:00 | 58.0  |
| 2011-08-22 05:00 | 60.0  |
| 2011-08-22 06:00 | 63.0  |
| 2011-08-22 07:00 | 65.0  |
| 2011-08-22 08:00 | 70.0  |
| 2011-08-22 09:00 | 81.0  |
| 2011-08-22 10:00 | 94.0  |
| 2011-08-22 11:00 | 120.0 |
| 2011-08-22 12:00 | 150.0 |
| 2011-08-22 13:00 | 182.0 |
| 2011-08-22 14:00 | 198.0 |
| 2011-08-22 15:00 | 213.0 |
| 2011-08-22 16:00 | 213.0 |
| 2011-08-22 17:00 | 216.0 |
| 2011-08-22 18:00 | 220.0 |
| 2011-08-22 19:00 | 211.0 |
| 2011-08-22 20:00 | 199.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-08-22 21:00 | 180.0 |
| 2011-08-22 22:00 | 173.0 |
| 2011-08-22 23:00 | 169.0 |
| 2011-08-23 00:00 | 162.0 |
| 2011-08-23 01:00 | 103.0 |
| 2011-08-23 02:00 | 105.0 |
| 2011-08-23 03:00 | 107.0 |
| 2011-08-23 04:00 | 107.0 |
| 2011-08-23 05:00 | 83.0  |
| 2011-08-23 06:00 | 46.0  |
| 2011-08-23 07:00 | 33.0  |
| 2011-08-23 08:00 | 32.0  |
| 2011-08-23 09:00 | 35.0  |
| 2011-08-23 10:00 | 43.0  |
| 2011-08-23 11:00 | 48.0  |
| 2011-08-23 12:00 | 59.0  |
| 2011-08-23 13:00 | 73.0  |
| 2011-08-23 14:00 | 85.0  |
| 2011-08-23 15:00 | 89.0  |
| 2011-08-23 16:00 | 90.0  |
| 2011-08-23 17:00 | 81.0  |
| 2011-08-23 18:00 | 70.0  |
| 2011-08-23 19:00 | 64.0  |
| 2011-08-23 20:00 | 40.0  |
| 2011-08-23 21:00 | 26.0  |
| 2011-08-23 22:00 | 17.0  |
| 2011-08-23 23:00 | 20.0  |
| 2011-08-24 00:00 | 20.0  |
| 2011-08-24 01:00 | 24.0  |
| 2011-08-24 02:00 | 20.0  |
| 2011-08-24 03:00 | 18.0  |
| 2011-08-24 04:00 | 20.0  |
| 2011-08-24 05:00 | 16.0  |
| 2011-08-24 06:00 | 15.0  |
| 2011-08-24 07:00 | 14.0  |
| 2011-08-24 08:00 | 16.0  |
| 2011-08-24 09:00 | 19.0  |
| 2011-08-24 10:00 | 22.0  |
| 2011-08-24 11:00 | 40.0  |
| 2011-08-24 12:00 | 54.0  |
| 2011-08-24 13:00 | 83.0  |
| 2011-08-24 14:00 | 93.0  |
| 2011-08-24 15:00 | 99.0  |
| 2011-08-24 16:00 | 112.0 |
| 2011-08-24 17:00 | 115.0 |
| 2011-08-24 18:00 | 107.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-08-24 19:00 | 104.0 |
| 2011-08-24 20:00 | 96.0  |
| 2011-08-24 21:00 | 84.0  |
| 2011-08-24 22:00 | 79.0  |
| 2011-08-24 23:00 | 81.0  |
| 2011-08-25 00:00 | 88.0  |
| 2011-08-25 01:00 | 45.0  |
| 2011-08-25 02:00 | 40.0  |
| 2011-08-25 03:00 | 37.0  |
| 2011-08-25 04:00 | 32.0  |
| 2011-08-25 05:00 | 32.0  |
| 2011-08-25 06:00 | 33.0  |
| 2011-08-25 07:00 | 32.0  |
| 2011-08-25 08:00 | 37.0  |
| 2011-08-25 09:00 | 42.0  |
| 2011-08-25 10:00 | 49.0  |
| 2011-08-25 11:00 | 62.0  |
| 2011-08-25 12:00 | 75.0  |
| 2011-08-25 13:00 | 91.0  |
| 2011-08-25 14:00 | 108.0 |
| 2011-08-25 15:00 | 130.0 |
| 2011-08-25 16:00 | 154.0 |
| 2011-08-25 17:00 | 160.0 |
| 2011-08-25 18:00 | 164.0 |
| 2011-08-25 19:00 | 170.0 |
| 2011-08-25 20:00 | 151.0 |
| 2011-08-25 21:00 | 137.0 |
| 2011-08-25 22:00 | 122.0 |
| 2011-08-25 23:00 | 110.0 |
| 2011-08-26 00:00 | 102.0 |
| 2011-08-26 01:00 | 161.0 |
| 2011-08-26 02:00 | 163.0 |
| 2011-08-26 03:00 | 159.0 |
| 2011-08-26 04:00 | 152.0 |
| 2011-08-26 05:00 | 145.0 |
| 2011-08-26 06:00 | 135.0 |
| 2011-08-26 07:00 | 115.0 |
| 2011-08-26 08:00 | 116.0 |
| 2011-08-26 09:00 | 111.0 |
| 2011-08-26 10:00 | 103.0 |
| 2011-08-26 11:00 | 99.0  |
| 2011-08-26 12:00 | 94.0  |
| 2011-08-26 13:00 | 90.0  |
| 2011-08-26 14:00 | 83.0  |
| 2011-08-26 15:00 | 74.0  |
| 2011-08-26 16:00 | 69.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-08-26 17:00 | 63.0 |
| 2011-08-26 18:00 | 53.0 |
| 2011-08-26 19:00 | 48.0 |
| 2011-08-26 20:00 | 33.0 |
| 2011-08-26 21:00 | 18.0 |
| 2011-08-26 22:00 | 9.0  |
| 2011-08-26 23:00 | 5.0  |
| 2011-08-27 00:00 | 2.0  |
| 2011-08-27 01:00 | 3.0  |
| 2011-08-27 02:00 | 1.0  |
| 2011-08-27 03:00 | 1.0  |
| 2011-08-27 04:00 | 0.0  |
| 2011-08-27 05:00 | 0.0  |
| 2011-08-27 06:00 | 0.0  |
| 2011-08-27 07:00 | 0.0  |
| 2011-08-27 08:00 | 3.0  |
| 2011-08-27 09:00 | 6.0  |
| 2011-08-27 10:00 | 15.0 |
| 2011-08-27 11:00 | 23.0 |
| 2011-08-27 12:00 | 27.0 |
| 2011-08-27 13:00 | 36.0 |
| 2011-08-27 14:00 | 36.0 |
| 2011-08-27 15:00 | 41.0 |
| 2011-08-27 16:00 | 43.0 |
| 2011-08-27 17:00 | 43.0 |
| 2011-08-27 18:00 | 45.0 |
| 2011-08-27 19:00 | 47.0 |
| 2011-08-27 20:00 | 36.0 |
| 2011-08-27 21:00 | 26.0 |
| 2011-08-27 22:00 | 16.0 |
| 2011-08-27 23:00 | 15.0 |
| 2011-08-28 00:00 | 12.0 |
| 2011-08-28 01:00 | 24.0 |
| 2011-08-28 02:00 | 21.0 |
| 2011-08-28 03:00 | 19.0 |
| 2011-08-28 04:00 | 17.0 |
| 2011-08-28 05:00 | 16.0 |
| 2011-08-28 06:00 | 14.0 |
| 2011-08-28 07:00 | 13.0 |
| 2011-08-28 08:00 | 11.0 |
| 2011-08-28 09:00 | 10.0 |
| 2011-08-28 10:00 | 10.0 |
| 2011-08-28 11:00 | 17.0 |
| 2011-08-28 12:00 | 23.0 |
| 2011-08-28 13:00 | 28.0 |
| 2011-08-28 14:00 | 28.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-08-28 15:00 | 31.0  |
| 2011-08-28 16:00 | 35.0  |
| 2011-08-28 17:00 | 38.0  |
| 2011-08-28 18:00 | 41.0  |
| 2011-08-28 19:00 | 51.0  |
| 2011-08-28 20:00 | 57.0  |
| 2011-08-28 21:00 | 74.0  |
| 2011-08-28 22:00 | 93.0  |
| 2011-08-28 23:00 | 121.0 |
| 2011-08-29 00:00 | 163.0 |
| 2011-08-29 01:00 | 206.0 |
| 2011-08-29 02:00 | 208.0 |
| 2011-08-29 03:00 | 211.0 |
| 2011-08-29 04:00 | 214.0 |
| 2011-08-29 05:00 | 216.0 |
| 2011-08-29 06:00 | 218.0 |
| 2011-08-29 07:00 | 225.0 |
| 2011-08-29 08:00 | 232.0 |
| 2011-08-29 09:00 | 236.0 |
| 2011-08-29 10:00 | 246.0 |
| 2011-08-29 11:00 | 246.0 |
| 2011-08-29 12:00 | 246.0 |
| 2011-08-29 13:00 | 245.0 |
| 2011-08-29 14:00 | 231.0 |
| 2011-08-29 15:00 | 224.0 |
| 2011-08-29 16:00 | 215.0 |
| 2011-08-29 17:00 | 208.0 |
| 2011-08-29 18:00 | 188.0 |
| 2011-08-29 19:00 | 168.0 |
| 2011-08-29 20:00 | 133.0 |
| 2011-08-29 21:00 | 94.0  |
| 2011-08-29 22:00 | 59.0  |
| 2011-08-29 23:00 | 47.0  |
| 2011-08-30 00:00 | 39.0  |
| 2011-08-30 01:00 | 27.0  |
| 2011-08-30 02:00 | 25.0  |
| 2011-08-30 03:00 | 22.0  |
| 2011-08-30 04:00 | 17.0  |
| 2011-08-30 05:00 | 12.0  |
| 2011-08-30 06:00 | 8.0   |
| 2011-08-30 07:00 | 7.0   |
| 2011-08-30 08:00 | 5.0   |
| 2011-08-30 09:00 | 2.0   |
| 2011-08-30 10:00 | 2.0   |
| 2011-08-30 11:00 | 3.0   |
| 2011-08-30 12:00 | 5.0   |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-08-30 13:00 | 12.0  |
| 2011-08-30 14:00 | 15.0  |
| 2011-08-30 15:00 | 21.0  |
| 2011-08-30 16:00 | 31.0  |
| 2011-08-30 17:00 | 26.0  |
| 2011-08-30 18:00 | 22.0  |
| 2011-08-30 19:00 | 22.0  |
| 2011-08-30 20:00 | 13.0  |
| 2011-08-30 21:00 | 11.0  |
| 2011-08-30 22:00 | 6.0   |
| 2011-08-30 23:00 | 8.0   |
| 2011-08-31 00:00 | 9.0   |
| 2011-08-31 01:00 | 4.0   |
| 2011-08-31 02:00 | 3.0   |
| 2011-08-31 03:00 | 3.0   |
| 2011-08-31 04:00 | 4.0   |
| 2011-08-31 05:00 | 4.0   |
| 2011-08-31 06:00 | 4.0   |
| 2011-08-31 07:00 | 3.0   |
| 2011-08-31 08:00 | 5.0   |
| 2011-08-31 09:00 | 6.0   |
| 2011-08-31 10:00 | 10.0  |
| 2011-08-31 11:00 | 20.0  |
| 2011-08-31 12:00 | 29.0  |
| 2011-08-31 13:00 | 40.0  |
| 2011-08-31 14:00 | 40.0  |
| 2011-08-31 15:00 | 42.0  |
| 2011-08-31 16:00 | 45.0  |
| 2011-08-31 17:00 | 42.0  |
| 2011-08-31 18:00 | 37.0  |
| 2011-08-31 19:00 | 30.0  |
| 2011-08-31 20:00 | 21.0  |
| 2011-08-31 21:00 | 14.0  |
| 2011-08-31 22:00 | 9.0   |
| 2011-08-31 23:00 | 10.0  |
| 2011-09-01 00:00 | 12.0  |
| 2011-09-01 01:00 | 127.9 |
| 2011-09-01 02:00 | 112.0 |
| 2011-09-01 03:00 | 89.2  |
| 2011-09-01 04:00 | 72.7  |
| 2011-09-01 05:00 | 67.8  |
| 2011-09-01 06:00 | 69.2  |
| 2011-09-01 07:00 | 68.8  |
| 2011-09-01 08:00 | 107.2 |
| 2011-09-01 09:00 | 145.2 |
| 2011-09-01 10:00 | 191.9 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-09-01 11:00 | 210.3 |
| 2011-09-01 12:00 | 225.8 |
| 2011-09-01 13:00 | 222.5 |
| 2011-09-01 14:00 | 219.7 |
| 2011-09-01 15:00 | 218.1 |
| 2011-09-01 16:00 | 214.6 |
| 2011-09-01 17:00 | 205.4 |
| 2011-09-01 18:00 | 196.1 |
| 2011-09-01 19:00 | 182.6 |
| 2011-09-01 20:00 | 155.9 |
| 2011-09-01 21:00 | 134.2 |
| 2011-09-01 22:00 | 110.0 |
| 2011-09-01 23:00 | 78.3  |
| 2011-09-02 00:00 | 61.0  |
| 2011-09-02 01:00 | 6.7   |
| 2011-09-02 02:00 | 5.2   |
| 2011-09-02 03:00 | 6.2   |
| 2011-09-02 04:00 | 5.5   |
| 2011-09-02 05:00 | 3.9   |
| 2011-09-02 06:00 | 4.7   |
| 2011-09-02 07:00 | 3.6   |
| 2011-09-02 08:00 | 2.6   |
| 2011-09-02 09:00 | 2.6   |
| 2011-09-02 10:00 | 2.6   |
| 2011-09-02 11:00 | 3.7   |
| 2011-09-02 12:00 | 2.9   |
| 2011-09-02 13:00 | 2.4   |
| 2011-09-02 14:00 | 4.4   |
| 2011-09-02 15:00 | 4.4   |
| 2011-09-02 16:00 | 6.5   |
| 2011-09-02 17:00 | 8.0   |
| 2011-09-02 18:00 | 9.2   |
| 2011-09-02 19:00 | 12.4  |
| 2011-09-02 20:00 | 10.4  |
| 2011-09-02 21:00 | 11.4  |
| 2011-09-02 22:00 | 16.8  |
| 2011-09-02 23:00 | 9.8   |
| 2011-09-03 00:00 | 3.8   |
| 2011-09-03 01:00 | 8.0   |
| 2011-09-03 02:00 | 2.8   |
| 2011-09-03 03:00 | 2.8   |
| 2011-09-03 04:00 | 2.8   |
| 2011-09-03 05:00 | 2.3   |
| 2011-09-03 06:00 | 1.5   |
| 2011-09-03 07:00 | 1.5   |
| 2011-09-03 08:00 | 0.7   |



## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-09-03 09:00 | 0.0  |
| 2011-09-03 10:00 | 2.0  |
| 2011-09-03 11:00 | 1.0  |
| 2011-09-03 12:00 | 1.0  |
| 2011-09-03 13:00 | 2.9  |
| 2011-09-03 14:00 | 4.6  |
| 2011-09-03 15:00 | 6.1  |
| 2011-09-03 16:00 | 6.1  |
| 2011-09-03 17:00 | 6.6  |
| 2011-09-03 18:00 | 9.2  |
| 2011-09-03 19:00 | 11.2 |
| 2011-09-03 20:00 | 6.5  |
| 2011-09-03 21:00 | 4.9  |
| 2011-09-03 22:00 | 9.2  |
| 2011-09-03 23:00 | 7.4  |
| 2011-09-04 00:00 | 7.4  |
| 2011-09-04 01:00 | 15.6 |
| 2011-09-04 02:00 | 18.2 |
| 2011-09-04 03:00 | 17.3 |
| 2011-09-04 04:00 | 17.3 |
| 2011-09-04 05:00 | 12.2 |
| 2011-09-04 06:00 | 6.8  |
| 2011-09-04 07:00 | 3.1  |
| 2011-09-04 08:00 | 7.5  |
| 2011-09-04 09:00 | 7.5  |
| 2011-09-04 10:00 | 8.4  |
| 2011-09-04 11:00 | 11.9 |
| 2011-09-04 12:00 | 15.8 |
| 2011-09-04 13:00 | 21.8 |
| 2011-09-04 14:00 | 33.9 |
| 2011-09-04 15:00 | 39.7 |
| 2011-09-04 16:00 | 49.7 |
| 2011-09-04 17:00 | 41.8 |
| 2011-09-04 18:00 | 37.2 |
| 2011-09-04 19:00 | 26.1 |
| 2011-09-04 20:00 | 16.2 |
| 2011-09-04 21:00 | 13.0 |
| 2011-09-04 22:00 | 9.0  |
| 2011-09-04 23:00 | 5.4  |
| 2011-09-05 00:00 | 4.9  |
| 2011-09-05 01:00 | 25.9 |
| 2011-09-05 02:00 | 23.1 |
| 2011-09-05 03:00 | 28.3 |
| 2011-09-05 04:00 | 15.5 |
| 2011-09-05 05:00 | 18.7 |
| 2011-09-05 06:00 | 22.8 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-09-05 07:00 | 26.0  |
| 2011-09-05 08:00 | 35.6  |
| 2011-09-05 09:00 | 39.7  |
| 2011-09-05 10:00 | 45.2  |
| 2011-09-05 11:00 | 35.6  |
| 2011-09-05 12:00 | 35.1  |
| 2011-09-05 13:00 | 40.5  |
| 2011-09-05 14:00 | 51.8  |
| 2011-09-05 15:00 | 82.8  |
| 2011-09-05 16:00 | 122.1 |
| 2011-09-05 17:00 | 149.3 |
| 2011-09-05 18:00 | 178.6 |
| 2011-09-05 19:00 | 197.4 |
| 2011-09-05 20:00 | 197.0 |
| 2011-09-05 21:00 | 198.2 |
| 2011-09-05 22:00 | 202.0 |
| 2011-09-05 23:00 | 222.6 |
| 2011-09-06 00:00 | 235.4 |
| 2011-09-06 01:00 | 211.3 |
| 2011-09-06 02:00 | 192.0 |
| 2011-09-06 03:00 | 170.0 |
| 2011-09-06 04:00 | 144.5 |
| 2011-09-06 05:00 | 123.3 |
| 2011-09-06 06:00 | 109.2 |
| 2011-09-06 07:00 | 92.6  |
| 2011-09-06 08:00 | 89.5  |
| 2011-09-06 09:00 | 80.6  |
| 2011-09-06 10:00 | 77.4  |
| 2011-09-06 11:00 | 80.8  |
| 2011-09-06 12:00 | 83.5  |
| 2011-09-06 13:00 | 80.8  |
| 2011-09-06 14:00 | 78.9  |
| 2011-09-06 15:00 | 82.7  |
| 2011-09-06 16:00 | 84.7  |
| 2011-09-06 17:00 | 80.7  |
| 2011-09-06 18:00 | 76.1  |
| 2011-09-06 19:00 | 74.8  |
| 2011-09-06 20:00 | 69.2  |
| 2011-09-06 21:00 | 65.4  |
| 2011-09-06 22:00 | 62.9  |
| 2011-09-06 23:00 | 67.4  |
| 2011-09-07 00:00 | 75.2  |
| 2011-09-07 01:00 | 42.8  |
| 2011-09-07 02:00 | 62.6  |
| 2011-09-07 03:00 | 73.3  |
| 2011-09-07 04:00 | 87.7  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-09-07 05:00 | 89.7  |
| 2011-09-07 06:00 | 95.9  |
| 2011-09-07 07:00 | 90.5  |
| 2011-09-07 08:00 | 92.7  |
| 2011-09-07 09:00 | 95.3  |
| 2011-09-07 10:00 | 97.1  |
| 2011-09-07 11:00 | 100.9 |
| 2011-09-07 12:00 | 106.8 |
| 2011-09-07 13:00 | 98.9  |
| 2011-09-07 14:00 | 92.4  |
| 2011-09-07 15:00 | 80.8  |
| 2011-09-07 16:00 | 77.4  |
| 2011-09-07 17:00 | 60.0  |
| 2011-09-07 18:00 | 50.4  |
| 2011-09-07 19:00 | 36.3  |
| 2011-09-07 20:00 | 26.7  |
| 2011-09-07 21:00 | 21.5  |
| 2011-09-07 22:00 | 20.3  |
| 2011-09-07 23:00 | 19.4  |
| 2011-09-08 00:00 | 15.3  |
| 2011-09-08 01:00 | 8.4   |
| 2011-09-08 02:00 | 15.2  |
| 2011-09-08 03:00 | 16.6  |
| 2011-09-08 04:00 | 17.0  |
| 2011-09-08 05:00 | 16.5  |
| 2011-09-08 06:00 | 19.3  |
| 2011-09-08 07:00 | 13.2  |
| 2011-09-08 08:00 | 22.6  |
| 2011-09-08 09:00 | 24.7  |
| 2011-09-08 10:00 | 37.5  |
| 2011-09-08 11:00 | 54.7  |
| 2011-09-08 12:00 | 75.1  |
| 2011-09-08 13:00 | 96.9  |
| 2011-09-08 14:00 | 104.1 |
| 2011-09-08 15:00 | 107.4 |
| 2011-09-08 16:00 | 122.8 |
| 2011-09-08 17:00 | 123.9 |
| 2011-09-08 18:00 | 126.3 |
| 2011-09-08 19:00 | 134.3 |
| 2011-09-08 20:00 | 139.5 |
| 2011-09-08 21:00 | 140.5 |
| 2011-09-08 22:00 | 145.5 |
| 2011-09-08 23:00 | 150.7 |
| 2011-09-09 00:00 | 151.9 |
| 2011-09-09 01:00 | 168.7 |
| 2011-09-09 02:00 | 189.5 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-09-09 03:00 | 202.2 |
| 2011-09-09 04:00 | 205.0 |
| 2011-09-09 05:00 | 203.5 |
| 2011-09-09 06:00 | 192.6 |
| 2011-09-09 07:00 | 186.4 |
| 2011-09-09 08:00 | 198.8 |
| 2011-09-09 09:00 | 203.0 |
| 2011-09-09 10:00 | 208.0 |
| 2011-09-09 11:00 | 207.7 |
| 2011-09-09 12:00 | 216.0 |
| 2011-09-09 13:00 | 223.6 |
| 2011-09-09 14:00 | 216.2 |
| 2011-09-09 15:00 | 210.4 |
| 2011-09-09 16:00 | 207.9 |
| 2011-09-09 17:00 | 194.3 |
| 2011-09-09 18:00 | 184.5 |
| 2011-09-09 19:00 | 153.6 |
| 2011-09-09 20:00 | 142.7 |
| 2011-09-09 21:00 | 135.8 |
| 2011-09-09 22:00 | 113.8 |
| 2011-09-09 23:00 | 126.3 |
| 2011-09-10 00:00 | 136.7 |
| 2011-09-10 01:00 | 98.1  |
| 2011-09-10 02:00 | 101.7 |
| 2011-09-10 03:00 | 98.0  |
| 2011-09-10 04:00 | 106.6 |
| 2011-09-10 05:00 | 111.3 |
| 2011-09-10 06:00 | 110.9 |
| 2011-09-10 07:00 | 116.2 |
| 2011-09-10 08:00 | 128.1 |
| 2011-09-10 09:00 | 146.6 |
| 2011-09-10 10:00 | 166.3 |
| 2011-09-10 11:00 | 184.0 |
| 2011-09-10 12:00 | 193.2 |
| 2011-09-10 13:00 | 198.2 |
| 2011-09-10 14:00 | 182.0 |
| 2011-09-10 15:00 | 168.0 |
| 2011-09-10 16:00 | 138.3 |
| 2011-09-10 17:00 | 133.9 |
| 2011-09-10 18:00 | 121.7 |
| 2011-09-10 19:00 | 114.1 |
| 2011-09-10 20:00 | 136.3 |
| 2011-09-10 21:00 | 170.1 |
| 2011-09-10 22:00 | 194.8 |
| 2011-09-10 23:00 | 200.8 |
| 2011-09-11 00:00 | 200.1 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-09-11 01:00 | 197.7 |
| 2011-09-11 02:00 | 208.4 |
| 2011-09-11 03:00 | 225.0 |
| 2011-09-11 04:00 | 237.5 |
| 2011-09-11 05:00 | 227.5 |
| 2011-09-11 06:00 | 212.7 |
| 2011-09-11 07:00 | 199.6 |
| 2011-09-11 08:00 | 203.3 |
| 2011-09-11 09:00 | 198.7 |
| 2011-09-11 10:00 | 198.7 |
| 2011-09-11 11:00 | 198.5 |
| 2011-09-11 12:00 | 201.4 |
| 2011-09-11 13:00 | 192.5 |
| 2011-09-11 14:00 | 182.8 |
| 2011-09-11 15:00 | 176.3 |
| 2011-09-11 16:00 | 156.9 |
| 2011-09-11 17:00 | 128.4 |
| 2011-09-11 18:00 | 104.2 |
| 2011-09-11 19:00 | 74.0  |
| 2011-09-11 20:00 | 46.9  |
| 2011-09-11 21:00 | 28.6  |
| 2011-09-11 22:00 | 20.0  |
| 2011-09-11 23:00 | 10.3  |
| 2011-09-12 00:00 | 7.7   |
| 2011-09-12 01:00 | 11.4  |
| 2011-09-12 02:00 | 12.6  |
| 2011-09-12 03:00 | 11.6  |
| 2011-09-12 04:00 | 10.5  |
| 2011-09-12 05:00 | 6.8   |
| 2011-09-12 06:00 | 2.1   |
| 2011-09-12 07:00 | 1.8   |
| 2011-09-12 08:00 | 1.5   |
| 2011-09-12 09:00 | 1.5   |
| 2011-09-12 10:00 | 1.5   |
| 2011-09-12 11:00 | 0.5   |
| 2011-09-12 12:00 | 1.1   |
| 2011-09-12 13:00 | 4.9   |
| 2011-09-12 14:00 | 5.2   |
| 2011-09-12 15:00 | 11.2  |
| 2011-09-12 16:00 | 10.9  |
| 2011-09-12 17:00 | 11.7  |
| 2011-09-12 18:00 | 10.7  |
| 2011-09-12 19:00 | 13.7  |
| 2011-09-12 20:00 | 7.2   |
| 2011-09-12 21:00 | 9.3   |
| 2011-09-12 22:00 | 8.9   |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-09-12 23:00 | 10.3  |
| 2011-09-13 00:00 | 14.2  |
| 2011-09-13 01:00 | 37.3  |
| 2011-09-13 02:00 | 45.5  |
| 2011-09-13 03:00 | 44.7  |
| 2011-09-13 04:00 | 38.7  |
| 2011-09-13 05:00 | 28.4  |
| 2011-09-13 06:00 | 26.4  |
| 2011-09-13 07:00 | 25.4  |
| 2011-09-13 08:00 | 35.5  |
| 2011-09-13 09:00 | 41.6  |
| 2011-09-13 10:00 | 58.1  |
| 2011-09-13 11:00 | 77.2  |
| 2011-09-13 12:00 | 94.5  |
| 2011-09-13 13:00 | 118.9 |
| 2011-09-13 14:00 | 129.2 |
| 2011-09-13 15:00 | 133.9 |
| 2011-09-13 16:00 | 141.3 |
| 2011-09-13 17:00 | 131.5 |
| 2011-09-13 18:00 | 115.9 |
| 2011-09-13 19:00 | 105.4 |
| 2011-09-13 20:00 | 91.4  |
| 2011-09-13 21:00 | 74.9  |
| 2011-09-13 22:00 | 55.4  |
| 2011-09-13 23:00 | 49.8  |
| 2011-09-14 00:00 | 44.1  |
| 2011-09-14 01:00 | 65.3  |
| 2011-09-14 02:00 | 63.9  |
| 2011-09-14 03:00 | 74.9  |
| 2011-09-14 04:00 | 88.1  |
| 2011-09-14 05:00 | 69.5  |
| 2011-09-14 06:00 | 60.2  |
| 2011-09-14 07:00 | 48.4  |
| 2011-09-14 08:00 | 46.5  |
| 2011-09-14 09:00 | 35.1  |
| 2011-09-14 10:00 | 34.0  |
| 2011-09-14 11:00 | 25.8  |
| 2011-09-14 12:00 | 26.8  |
| 2011-09-14 13:00 | 26.4  |
| 2011-09-14 14:00 | 34.0  |
| 2011-09-14 15:00 | 39.1  |
| 2011-09-14 16:00 | 43.2  |
| 2011-09-14 17:00 | 41.2  |
| 2011-09-14 18:00 | 39.1  |
| 2011-09-14 19:00 | 39.6  |
| 2011-09-14 20:00 | 32.4  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-09-14 21:00 | 29.3  |
| 2011-09-14 22:00 | 35.9  |
| 2011-09-14 23:00 | 36.9  |
| 2011-09-15 00:00 | 38.7  |
| 2011-09-15 01:00 | 61.4  |
| 2011-09-15 02:00 | 66.2  |
| 2011-09-15 03:00 | 72.1  |
| 2011-09-15 04:00 | 78.0  |
| 2011-09-15 05:00 | 72.3  |
| 2011-09-15 06:00 | 65.7  |
| 2011-09-15 07:00 | 65.7  |
| 2011-09-15 08:00 | 65.9  |
| 2011-09-15 09:00 | 67.9  |
| 2011-09-15 10:00 | 70.3  |
| 2011-09-15 11:00 | 78.1  |
| 2011-09-15 12:00 | 98.0  |
| 2011-09-15 13:00 | 105.5 |
| 2011-09-15 14:00 | 105.5 |
| 2011-09-15 15:00 | 108.8 |
| 2011-09-15 16:00 | 113.0 |
| 2011-09-15 17:00 | 99.8  |
| 2011-09-15 18:00 | 93.5  |
| 2011-09-15 19:00 | 88.3  |
| 2011-09-15 20:00 | 75.0  |
| 2011-09-15 21:00 | 62.0  |
| 2011-09-15 22:00 | 48.2  |
| 2011-09-15 23:00 | 48.1  |
| 2011-09-16 00:00 | 41.1  |
| 2011-09-16 01:00 | 77.1  |
| 2011-09-16 02:00 | 64.5  |
| 2011-09-16 03:00 | 85.9  |
| 2011-09-16 04:00 | 92.1  |
| 2011-09-16 05:00 | 72.1  |
| 2011-09-16 06:00 | 41.2  |
| 2011-09-16 07:00 | 28.5  |
| 2011-09-16 08:00 | 32.0  |
| 2011-09-16 09:00 | 30.4  |
| 2011-09-16 10:00 | 39.4  |
| 2011-09-16 11:00 | 42.8  |
| 2011-09-16 12:00 | 55.3  |
| 2011-09-16 13:00 | 69.7  |
| 2011-09-16 14:00 | 72.9  |
| 2011-09-16 15:00 | 75.8  |
| 2011-09-16 16:00 | 79.7  |
| 2011-09-16 17:00 | 76.6  |
| 2011-09-16 18:00 | 68.8  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-09-16 19:00 | 71.3  |
| 2011-09-16 20:00 | 46.6  |
| 2011-09-16 21:00 | 34.8  |
| 2011-09-16 22:00 | 26.9  |
| 2011-09-16 23:00 | 25.1  |
| 2011-09-17 00:00 | 23.3  |
| 2011-09-17 01:00 | 53.0  |
| 2011-09-17 02:00 | 46.2  |
| 2011-09-17 03:00 | 43.2  |
| 2011-09-17 04:00 | 42.2  |
| 2011-09-17 05:00 | 31.5  |
| 2011-09-17 06:00 | 25.4  |
| 2011-09-17 07:00 | 26.8  |
| 2011-09-17 08:00 | 36.3  |
| 2011-09-17 09:00 | 44.1  |
| 2011-09-17 10:00 | 59.1  |
| 2011-09-17 11:00 | 74.7  |
| 2011-09-17 12:00 | 95.0  |
| 2011-09-17 13:00 | 123.8 |
| 2011-09-17 14:00 | 108.2 |
| 2011-09-17 15:00 | 98.7  |
| 2011-09-17 16:00 | 91.7  |
| 2011-09-17 17:00 | 72.7  |
| 2011-09-17 18:00 | 51.7  |
| 2011-09-17 19:00 | 34.9  |
| 2011-09-17 20:00 | 26.4  |
| 2011-09-17 21:00 | 12.5  |
| 2011-09-17 22:00 | 10.2  |
| 2011-09-17 23:00 | 8.5   |
| 2011-09-18 00:00 | 5.1   |
| 2011-09-18 01:00 | 10.3  |
| 2011-09-18 02:00 | 9.4   |
| 2011-09-18 03:00 | 14.6  |
| 2011-09-18 04:00 | 15.5  |
| 2011-09-18 05:00 | 10.6  |
| 2011-09-18 06:00 | 8.0   |
| 2011-09-18 07:00 | 5.4   |
| 2011-09-18 08:00 | 5.1   |
| 2011-09-18 09:00 | 5.1   |
| 2011-09-18 10:00 | 5.1   |
| 2011-09-18 11:00 | 16.3  |
| 2011-09-18 12:00 | 22.0  |
| 2011-09-18 13:00 | 43.1  |
| 2011-09-18 14:00 | 57.2  |
| 2011-09-18 15:00 | 72.9  |
| 2011-09-18 16:00 | 82.1  |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-09-18 17:00 | 93.2  |
| 2011-09-18 18:00 | 99.5  |
| 2011-09-18 19:00 | 120.4 |
| 2011-09-18 20:00 | 112.1 |
| 2011-09-18 21:00 | 115.2 |
| 2011-09-18 22:00 | 117.0 |
| 2011-09-18 23:00 | 129.9 |
| 2011-09-19 00:00 | 140.4 |
| 2011-09-19 01:00 | 178.5 |
| 2011-09-19 02:00 | 191.1 |
| 2011-09-19 03:00 | 209.1 |
| 2011-09-19 04:00 | 218.5 |
| 2011-09-19 05:00 | 218.9 |
| 2011-09-19 06:00 | 223.2 |
| 2011-09-19 07:00 | 230.5 |
| 2011-09-19 08:00 | 235.0 |
| 2011-09-19 09:00 | 249.3 |
| 2011-09-19 10:00 | 255.8 |
| 2011-09-19 11:00 | 257.5 |
| 2011-09-19 12:00 | 264.7 |
| 2011-09-19 13:00 | 267.8 |
| 2011-09-19 14:00 | 268.3 |
| 2011-09-19 15:00 | 268.3 |
| 2011-09-19 16:00 | 268.3 |
| 2011-09-19 17:00 | 268.1 |
| 2011-09-19 18:00 | 266.2 |
| 2011-09-19 19:00 | 253.2 |
| 2011-09-19 20:00 | 244.5 |
| 2011-09-19 21:00 | 230.8 |
| 2011-09-19 22:00 | 215.6 |
| 2011-09-19 23:00 | 196.6 |
| 2011-09-20 00:00 | 168.2 |
| 2011-09-20 01:00 | 91.5  |
| 2011-09-20 02:00 | 69.7  |
| 2011-09-20 03:00 | 64.4  |
| 2011-09-20 04:00 | 59.9  |
| 2011-09-20 05:00 | 66.5  |
| 2011-09-20 06:00 | 85.6  |
| 2011-09-20 07:00 | 99.4  |
| 2011-09-20 08:00 | 101.1 |
| 2011-09-20 09:00 | 98.3  |
| 2011-09-20 10:00 | 95.9  |
| 2011-09-20 11:00 | 93.4  |
| 2011-09-20 12:00 | 89.6  |
| 2011-09-20 13:00 | 88.1  |
| 2011-09-20 14:00 | 73.2  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-09-20 15:00 | 55.5  |
| 2011-09-20 16:00 | 47.6  |
| 2011-09-20 17:00 | 36.4  |
| 2011-09-20 18:00 | 37.2  |
| 2011-09-20 19:00 | 38.6  |
| 2011-09-20 20:00 | 40.7  |
| 2011-09-20 21:00 | 54.6  |
| 2011-09-20 22:00 | 69.7  |
| 2011-09-20 23:00 | 96.5  |
| 2011-09-21 00:00 | 120.8 |
| 2011-09-21 01:00 | 88.8  |
| 2011-09-21 02:00 | 124.0 |
| 2011-09-21 03:00 | 139.0 |
| 2011-09-21 04:00 | 155.4 |
| 2011-09-21 05:00 | 134.5 |
| 2011-09-21 06:00 | 121.4 |
| 2011-09-21 07:00 | 105.4 |
| 2011-09-21 08:00 | 105.9 |
| 2011-09-21 09:00 | 100.7 |
| 2011-09-21 10:00 | 98.2  |
| 2011-09-21 11:00 | 111.6 |
| 2011-09-21 12:00 | 118.9 |
| 2011-09-21 13:00 | 126.2 |
| 2011-09-21 14:00 | 122.1 |
| 2011-09-21 15:00 | 113.4 |
| 2011-09-21 16:00 | 106.2 |
| 2011-09-21 17:00 | 97.5  |
| 2011-09-21 18:00 | 94.0  |
| 2011-09-21 19:00 | 93.1  |
| 2011-09-21 20:00 | 89.7  |
| 2011-09-21 21:00 | 93.3  |
| 2011-09-21 22:00 | 90.9  |
| 2011-09-21 23:00 | 84.0  |
| 2011-09-22 00:00 | 79.8  |
| 2011-09-22 01:00 | 107.8 |
| 2011-09-22 02:00 | 99.1  |
| 2011-09-22 03:00 | 103.2 |
| 2011-09-22 04:00 | 102.1 |
| 2011-09-22 05:00 | 101.5 |
| 2011-09-22 06:00 | 98.2  |
| 2011-09-22 07:00 | 97.9  |
| 2011-09-22 08:00 | 104.0 |
| 2011-09-22 09:00 | 103.8 |
| 2011-09-22 10:00 | 105.9 |
| 2011-09-22 11:00 | 110.0 |
| 2011-09-22 12:00 | 113.9 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-09-22 13:00 | 116.1 |
| 2011-09-22 14:00 | 115.1 |
| 2011-09-22 15:00 | 108.9 |
| 2011-09-22 16:00 | 103.2 |
| 2011-09-22 17:00 | 96.8  |
| 2011-09-22 18:00 | 88.6  |
| 2011-09-22 19:00 | 81.8  |
| 2011-09-22 20:00 | 85.4  |
| 2011-09-22 21:00 | 90.1  |
| 2011-09-22 22:00 | 91.2  |
| 2011-09-22 23:00 | 97.2  |
| 2011-09-23 00:00 | 100.4 |
| 2011-09-23 01:00 | 149.2 |
| 2011-09-23 02:00 | 151.6 |
| 2011-09-23 03:00 | 147.8 |
| 2011-09-23 04:00 | 145.8 |
| 2011-09-23 05:00 | 121.1 |
| 2011-09-23 06:00 | 105.2 |
| 2011-09-23 07:00 | 86.8  |
| 2011-09-23 08:00 | 91.3  |
| 2011-09-23 09:00 | 95.6  |
| 2011-09-23 10:00 | 97.6  |
| 2011-09-23 11:00 | 92.8  |
| 2011-09-23 12:00 | 88.8  |
| 2011-09-23 13:00 | 85.9  |
| 2011-09-23 14:00 | 81.8  |
| 2011-09-23 15:00 | 79.6  |
| 2011-09-23 16:00 | 76.2  |
| 2011-09-23 17:00 | 71.9  |
| 2011-09-23 18:00 | 55.7  |
| 2011-09-23 19:00 | 47.3  |
| 2011-09-23 20:00 | 38.4  |
| 2011-09-23 21:00 | 30.3  |
| 2011-09-23 22:00 | 29.2  |
| 2011-09-23 23:00 | 24.3  |
| 2011-09-24 00:00 | 19.8  |
| 2011-09-24 01:00 | 10.5  |
| 2011-09-24 02:00 | 19.9  |
| 2011-09-24 03:00 | 17.0  |
| 2011-09-24 04:00 | 23.4  |
| 2011-09-24 05:00 | 20.8  |
| 2011-09-24 06:00 | 12.6  |
| 2011-09-24 07:00 | 16.6  |
| 2011-09-24 08:00 | 15.3  |
| 2011-09-24 09:00 | 19.0  |
| 2011-09-24 10:00 | 22.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-09-24 11:00 | 18.6 |
| 2011-09-24 12:00 | 15.2 |
| 2011-09-24 13:00 | 13.0 |
| 2011-09-24 14:00 | 22.4 |
| 2011-09-24 15:00 | 26.3 |
| 2011-09-24 16:00 | 31.6 |
| 2011-09-24 17:00 | 33.6 |
| 2011-09-24 18:00 | 35.9 |
| 2011-09-24 19:00 | 42.6 |
| 2011-09-24 20:00 | 40.5 |
| 2011-09-24 21:00 | 47.7 |
| 2011-09-24 22:00 | 59.0 |
| 2011-09-24 23:00 | 45.2 |
| 2011-09-25 00:00 | 32.0 |
| 2011-09-25 01:00 | 50.2 |
| 2011-09-25 02:00 | 75.5 |
| 2011-09-25 03:00 | 89.6 |
| 2011-09-25 04:00 | 52.4 |
| 2011-09-25 05:00 | 41.5 |
| 2011-09-25 06:00 | 39.3 |
| 2011-09-25 07:00 | 53.2 |
| 2011-09-25 08:00 | 39.8 |
| 2011-09-25 09:00 | 25.0 |
| 2011-09-25 10:00 | 23.4 |
| 2011-09-25 11:00 | 20.5 |
| 2011-09-25 12:00 | 20.3 |
| 2011-09-25 13:00 | 30.0 |
| 2011-09-25 14:00 | 45.9 |
| 2011-09-25 15:00 | 67.1 |
| 2011-09-25 16:00 | 81.3 |
| 2011-09-25 17:00 | 79.3 |
| 2011-09-25 18:00 | 76.3 |
| 2011-09-25 19:00 | 71.6 |
| 2011-09-25 20:00 | 69.4 |
| 2011-09-25 21:00 | 55.2 |
| 2011-09-25 22:00 | 50.8 |
| 2011-09-25 23:00 | 47.7 |
| 2011-09-26 00:00 | 51.8 |
| 2011-09-26 01:00 | 73.6 |
| 2011-09-26 02:00 | 80.7 |
| 2011-09-26 03:00 | 88.4 |
| 2011-09-26 04:00 | 92.3 |
| 2011-09-26 05:00 | 71.3 |
| 2011-09-26 06:00 | 59.5 |
| 2011-09-26 07:00 | 44.7 |
| 2011-09-26 08:00 | 55.1 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-09-26 09:00 | 69.9  |
| 2011-09-26 10:00 | 86.5  |
| 2011-09-26 11:00 | 100.6 |
| 2011-09-26 12:00 | 113.1 |
| 2011-09-26 13:00 | 134.4 |
| 2011-09-26 14:00 | 146.3 |
| 2011-09-26 15:00 | 146.3 |
| 2011-09-26 16:00 | 157.5 |
| 2011-09-26 17:00 | 154.3 |
| 2011-09-26 18:00 | 153.8 |
| 2011-09-26 19:00 | 150.3 |
| 2011-09-26 20:00 | 156.0 |
| 2011-09-26 21:00 | 162.0 |
| 2011-09-26 22:00 | 170.6 |
| 2011-09-26 23:00 | 178.0 |
| 2011-09-27 00:00 | 196.2 |
| 2011-09-27 01:00 | 236.1 |
| 2011-09-27 02:00 | 242.4 |
| 2011-09-27 03:00 | 247.1 |
| 2011-09-27 04:00 | 245.1 |
| 2011-09-27 05:00 | 246.6 |
| 2011-09-27 06:00 | 240.9 |
| 2011-09-27 07:00 | 222.9 |
| 2011-09-27 08:00 | 198.7 |
| 2011-09-27 09:00 | 176.5 |
| 2011-09-27 10:00 | 150.9 |
| 2011-09-27 11:00 | 143.6 |
| 2011-09-27 12:00 | 129.0 |
| 2011-09-27 13:00 | 134.5 |
| 2011-09-27 14:00 | 125.5 |
| 2011-09-27 15:00 | 117.5 |
| 2011-09-27 16:00 | 113.1 |
| 2011-09-27 17:00 | 109.0 |
| 2011-09-27 18:00 | 102.8 |
| 2011-09-27 19:00 | 99.5  |
| 2011-09-27 20:00 | 82.4  |
| 2011-09-27 21:00 | 78.8  |
| 2011-09-27 22:00 | 70.2  |
| 2011-09-27 23:00 | 65.3  |
| 2011-09-28 00:00 | 58.6  |
| 2011-09-28 01:00 | 66.3  |
| 2011-09-28 02:00 | 61.6  |
| 2011-09-28 03:00 | 55.8  |
| 2011-09-28 04:00 | 52.7  |
| 2011-09-28 05:00 | 39.8  |
| 2011-09-28 06:00 | 30.6  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-09-28 07:00 | 20.0  |
| 2011-09-28 08:00 | 19.0  |
| 2011-09-28 09:00 | 17.1  |
| 2011-09-28 10:00 | 15.9  |
| 2011-09-28 11:00 | 13.9  |
| 2011-09-28 12:00 | 25.8  |
| 2011-09-28 13:00 | 31.3  |
| 2011-09-28 14:00 | 28.5  |
| 2011-09-28 15:00 | 28.6  |
| 2011-09-28 16:00 | 29.4  |
| 2011-09-28 17:00 | 18.9  |
| 2011-09-28 18:00 | 16.8  |
| 2011-09-28 19:00 | 8.6   |
| 2011-09-28 20:00 | 7.2   |
| 2011-09-28 21:00 | 5.1   |
| 2011-09-28 22:00 | 5.1   |
| 2011-09-28 23:00 | 4.0   |
| 2011-09-29 00:00 | 2.4   |
| 2011-09-29 01:00 | 15.6  |
| 2011-09-29 02:00 | 19.5  |
| 2011-09-29 03:00 | 24.4  |
| 2011-09-29 04:00 | 33.0  |
| 2011-09-29 05:00 | 36.8  |
| 2011-09-29 06:00 | 42.1  |
| 2011-09-29 07:00 | 50.2  |
| 2011-09-29 08:00 | 63.4  |
| 2011-09-29 09:00 | 74.1  |
| 2011-09-29 10:00 | 93.3  |
| 2011-09-29 11:00 | 116.3 |
| 2011-09-29 12:00 | 139.8 |
| 2011-09-29 13:00 | 186.8 |
| 2011-09-29 14:00 | 197.8 |
| 2011-09-29 15:00 | 195.4 |
| 2011-09-29 16:00 | 202.2 |
| 2011-09-29 17:00 | 202.2 |
| 2011-09-29 18:00 | 203.1 |
| 2011-09-29 19:00 | 203.1 |
| 2011-09-29 20:00 | 194.4 |
| 2011-09-29 21:00 | 183.1 |
| 2011-09-29 22:00 | 172.0 |
| 2011-09-29 23:00 | 166.7 |
| 2011-09-30 00:00 | 171.7 |
| 2011-09-30 01:00 | 204.3 |
| 2011-09-30 02:00 | 188.1 |
| 2011-09-30 03:00 | 164.1 |
| 2011-09-30 04:00 | 147.5 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-09-30 05:00 | 127.1 |
| 2011-09-30 06:00 | 114.7 |
| 2011-09-30 07:00 | 100.3 |
| 2011-09-30 08:00 | 94.0  |
| 2011-09-30 09:00 | 91.7  |
| 2011-09-30 10:00 | 89.5  |
| 2011-09-30 11:00 | 88.9  |
| 2011-09-30 12:00 | 81.3  |
| 2011-09-30 13:00 | 92.6  |
| 2011-09-30 14:00 | 89.2  |
| 2011-09-30 15:00 | 95.5  |
| 2011-09-30 16:00 | 97.3  |
| 2011-09-30 17:00 | 109.6 |
| 2011-09-30 18:00 | 128.4 |
| 2011-09-30 19:00 | 144.7 |
| 2011-09-30 20:00 | 146.9 |
| 2011-09-30 21:00 | 144.6 |
| 2011-09-30 22:00 | 144.1 |
| 2011-09-30 23:00 | 163.3 |
| 2011-10-01 00:00 | 177.8 |
| 2011-10-01 01:00 | 55.3  |
| 2011-10-01 02:00 | 51.1  |
| 2011-10-01 03:00 | 42.2  |
| 2011-10-01 04:00 | 40.6  |
| 2011-10-01 05:00 | 42.8  |
| 2011-10-01 06:00 | 42.8  |
| 2011-10-01 07:00 | 47.1  |
| 2011-10-01 08:00 | 33.3  |
| 2011-10-01 09:00 | 21.8  |
| 2011-10-01 10:00 | 10.5  |
| 2011-10-01 11:00 | 41.1  |
| 2011-10-01 12:00 | 60.6  |
| 2011-10-01 13:00 | 92.5  |
| 2011-10-01 14:00 | 100.6 |
| 2011-10-01 15:00 | 112.7 |
| 2011-10-01 16:00 | 124.8 |
| 2011-10-01 17:00 | 93.1  |
| 2011-10-01 18:00 | 47.9  |
| 2011-10-01 19:00 | 24.7  |
| 2011-10-01 20:00 | 44.7  |
| 2011-10-01 21:00 | 61.3  |
| 2011-10-01 22:00 | 88.2  |
| 2011-10-01 23:00 | 85.0  |
| 2011-10-02 00:00 | 92.1  |
| 2011-10-02 01:00 | 37.0  |
| 2011-10-02 02:00 | 58.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-10-02 03:00 | 70.0 |
| 2011-10-02 04:00 | 83.9 |
| 2011-10-02 05:00 | 79.5 |
| 2011-10-02 06:00 | 76.0 |
| 2011-10-02 07:00 | 77.4 |
| 2011-10-02 08:00 | 75.6 |
| 2011-10-02 09:00 | 74.3 |
| 2011-10-02 10:00 | 69.6 |
| 2011-10-02 11:00 | 66.1 |
| 2011-10-02 12:00 | 58.4 |
| 2011-10-02 13:00 | 54.4 |
| 2011-10-02 14:00 | 53.4 |
| 2011-10-02 15:00 | 46.7 |
| 2011-10-02 16:00 | 46.7 |
| 2011-10-02 17:00 | 45.0 |
| 2011-10-02 18:00 | 43.8 |
| 2011-10-02 19:00 | 40.3 |
| 2011-10-02 20:00 | 41.6 |
| 2011-10-02 21:00 | 39.6 |
| 2011-10-02 22:00 | 35.4 |
| 2011-10-02 23:00 | 32.6 |
| 2011-10-03 00:00 | 28.6 |
| 2011-10-03 01:00 | 32.0 |
| 2011-10-03 02:00 | 30.3 |
| 2011-10-03 03:00 | 24.8 |
| 2011-10-03 04:00 | 16.3 |
| 2011-10-03 05:00 | 16.4 |
| 2011-10-03 06:00 | 23.5 |
| 2011-10-03 07:00 | 26.7 |
| 2011-10-03 08:00 | 24.0 |
| 2011-10-03 09:00 | 20.1 |
| 2011-10-03 10:00 | 19.1 |
| 2011-10-03 11:00 | 14.9 |
| 2011-10-03 12:00 | 12.2 |
| 2011-10-03 13:00 | 11.0 |
| 2011-10-03 14:00 | 8.9  |
| 2011-10-03 15:00 | 8.8  |
| 2011-10-03 16:00 | 10.8 |
| 2011-10-03 17:00 | 8.6  |
| 2011-10-03 18:00 | 9.1  |
| 2011-10-03 19:00 | 8.5  |
| 2011-10-03 20:00 | 7.1  |
| 2011-10-03 21:00 | 8.1  |
| 2011-10-03 22:00 | 7.6  |
| 2011-10-03 23:00 | 6.5  |
| 2011-10-04 00:00 | 6.6  |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-10-04 01:00 | 8.7   |
| 2011-10-04 02:00 | 9.4   |
| 2011-10-04 03:00 | 13.8  |
| 2011-10-04 04:00 | 16.6  |
| 2011-10-04 05:00 | 27.8  |
| 2011-10-04 06:00 | 30.8  |
| 2011-10-04 07:00 | 42.0  |
| 2011-10-04 08:00 | 40.8  |
| 2011-10-04 09:00 | 34.1  |
| 2011-10-04 10:00 | 32.9  |
| 2011-10-04 11:00 | 34.3  |
| 2011-10-04 12:00 | 31.6  |
| 2011-10-04 13:00 | 32.1  |
| 2011-10-04 14:00 | 23.2  |
| 2011-10-04 15:00 | 20.0  |
| 2011-10-04 16:00 | 23.0  |
| 2011-10-04 17:00 | 24.1  |
| 2011-10-04 18:00 | 34.3  |
| 2011-10-04 19:00 | 45.2  |
| 2011-10-04 20:00 | 36.6  |
| 2011-10-04 21:00 | 33.0  |
| 2011-10-04 22:00 | 38.6  |
| 2011-10-04 23:00 | 31.6  |
| 2011-10-05 00:00 | 23.7  |
| 2011-10-05 01:00 | 122.0 |
| 2011-10-05 02:00 | 135.9 |
| 2011-10-05 03:00 | 155.4 |
| 2011-10-05 04:00 | 171.8 |
| 2011-10-05 05:00 | 189.5 |
| 2011-10-05 06:00 | 200.2 |
| 2011-10-05 07:00 | 217.9 |
| 2011-10-05 08:00 | 220.9 |
| 2011-10-05 09:00 | 222.8 |
| 2011-10-05 10:00 | 231.5 |
| 2011-10-05 11:00 | 247.9 |
| 2011-10-05 12:00 | 257.0 |
| 2011-10-05 13:00 | 265.6 |
| 2011-10-05 14:00 | 267.9 |
| 2011-10-05 15:00 | 268.2 |
| 2011-10-05 16:00 | 268.3 |
| 2011-10-05 17:00 | 268.3 |
| 2011-10-05 18:00 | 268.3 |
| 2011-10-05 19:00 | 268.3 |
| 2011-10-05 20:00 | 268.3 |
| 2011-10-05 21:00 | 265.2 |
| 2011-10-05 22:00 | 265.2 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-10-05 23:00 | 265.2 |
| 2011-10-06 00:00 | 265.2 |
| 2011-10-06 01:00 | 261.5 |
| 2011-10-06 02:00 | 264.9 |
| 2011-10-06 03:00 | 264.9 |
| 2011-10-06 04:00 | 265.2 |
| 2011-10-06 05:00 | 265.2 |
| 2011-10-06 06:00 | 262.0 |
| 2011-10-06 07:00 | 262.0 |
| 2011-10-06 08:00 | 262.0 |
| 2011-10-06 09:00 | 264.7 |
| 2011-10-06 10:00 | 264.7 |
| 2011-10-06 11:00 | 264.7 |
| 2011-10-06 12:00 | 264.7 |
| 2011-10-06 13:00 | 264.5 |
| 2011-10-06 14:00 | 258.4 |
| 2011-10-06 15:00 | 261.9 |
| 2011-10-06 16:00 | 251.5 |
| 2011-10-06 17:00 | 251.5 |
| 2011-10-06 18:00 | 251.5 |
| 2011-10-06 19:00 | 251.5 |
| 2011-10-06 20:00 | 259.0 |
| 2011-10-06 21:00 | 265.3 |
| 2011-10-06 22:00 | 265.3 |
| 2011-10-06 23:00 | 258.7 |
| 2011-10-07 00:00 | 258.5 |
| 2011-10-07 01:00 | 240.6 |
| 2011-10-07 02:00 | 229.1 |
| 2011-10-07 03:00 | 224.2 |
| 2011-10-07 04:00 | 204.4 |
| 2011-10-07 05:00 | 202.5 |
| 2011-10-07 06:00 | 192.1 |
| 2011-10-07 07:00 | 187.2 |
| 2011-10-07 08:00 | 187.1 |
| 2011-10-07 09:00 | 187.3 |
| 2011-10-07 10:00 | 188.3 |
| 2011-10-07 11:00 | 189.7 |
| 2011-10-07 12:00 | 185.5 |
| 2011-10-07 13:00 | 173.6 |
| 2011-10-07 14:00 | 171.8 |
| 2011-10-07 15:00 | 168.4 |
| 2011-10-07 16:00 | 167.4 |
| 2011-10-07 17:00 | 149.3 |
| 2011-10-07 18:00 | 127.4 |
| 2011-10-07 19:00 | 108.6 |
| 2011-10-07 20:00 | 69.6  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-10-07 21:00 | 46.8  |
| 2011-10-07 22:00 | 38.3  |
| 2011-10-07 23:00 | 20.4  |
| 2011-10-08 00:00 | 8.9   |
| 2011-10-08 01:00 | 24.1  |
| 2011-10-08 02:00 | 32.8  |
| 2011-10-08 03:00 | 39.8  |
| 2011-10-08 04:00 | 47.4  |
| 2011-10-08 05:00 | 55.4  |
| 2011-10-08 06:00 | 75.7  |
| 2011-10-08 07:00 | 89.2  |
| 2011-10-08 08:00 | 109.5 |
| 2011-10-08 09:00 | 120.8 |
| 2011-10-08 10:00 | 140.6 |
| 2011-10-08 11:00 | 154.8 |
| 2011-10-08 12:00 | 161.5 |
| 2011-10-08 13:00 | 167.0 |
| 2011-10-08 14:00 | 146.7 |
| 2011-10-08 15:00 | 127.4 |
| 2011-10-08 16:00 | 116.3 |
| 2011-10-08 17:00 | 90.9  |
| 2011-10-08 18:00 | 70.9  |
| 2011-10-08 19:00 | 51.7  |
| 2011-10-08 20:00 | 39.6  |
| 2011-10-08 21:00 | 33.6  |
| 2011-10-08 22:00 | 26.7  |
| 2011-10-08 23:00 | 24.1  |
| 2011-10-09 00:00 | 19.5  |
| 2011-10-09 01:00 | 35.0  |
| 2011-10-09 02:00 | 23.8  |
| 2011-10-09 03:00 | 24.1  |
| 2011-10-09 04:00 | 21.6  |
| 2011-10-09 05:00 | 22.0  |
| 2011-10-09 06:00 | 19.2  |
| 2011-10-09 07:00 | 23.3  |
| 2011-10-09 08:00 | 25.0  |
| 2011-10-09 09:00 | 33.9  |
| 2011-10-09 10:00 | 35.9  |
| 2011-10-09 11:00 | 45.0  |
| 2011-10-09 12:00 | 60.8  |
| 2011-10-09 13:00 | 72.6  |
| 2011-10-09 14:00 | 75.2  |
| 2011-10-09 15:00 | 74.8  |
| 2011-10-09 16:00 | 77.3  |
| 2011-10-09 17:00 | 55.8  |
| 2011-10-09 18:00 | 40.5  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-10-09 19:00 | 23.6  |
| 2011-10-09 20:00 | 26.3  |
| 2011-10-09 21:00 | 28.5  |
| 2011-10-09 22:00 | 32.4  |
| 2011-10-09 23:00 | 46.0  |
| 2011-10-10 00:00 | 53.3  |
| 2011-10-10 01:00 | 67.3  |
| 2011-10-10 02:00 | 69.0  |
| 2011-10-10 03:00 | 70.1  |
| 2011-10-10 04:00 | 67.2  |
| 2011-10-10 05:00 | 64.2  |
| 2011-10-10 06:00 | 61.3  |
| 2011-10-10 07:00 | 58.7  |
| 2011-10-10 08:00 | 62.1  |
| 2011-10-10 09:00 | 85.1  |
| 2011-10-10 10:00 | 102.9 |
| 2011-10-10 11:00 | 133.0 |
| 2011-10-10 12:00 | 156.7 |
| 2011-10-10 13:00 | 187.2 |
| 2011-10-10 14:00 | 185.3 |
| 2011-10-10 15:00 | 164.8 |
| 2011-10-10 16:00 | 156.9 |
| 2011-10-10 17:00 | 127.1 |
| 2011-10-10 18:00 | 102.2 |
| 2011-10-10 19:00 | 79.1  |
| 2011-10-10 20:00 | 81.0  |
| 2011-10-10 21:00 | 81.2  |
| 2011-10-10 22:00 | 90.5  |
| 2011-10-10 23:00 | 107.1 |
| 2011-10-11 00:00 | 106.5 |
| 2011-10-11 01:00 | 145.7 |
| 2011-10-11 02:00 | 131.2 |
| 2011-10-11 03:00 | 124.3 |
| 2011-10-11 04:00 | 108.9 |
| 2011-10-11 05:00 | 109.4 |
| 2011-10-11 06:00 | 111.6 |
| 2011-10-11 07:00 | 111.7 |
| 2011-10-11 08:00 | 110.9 |
| 2011-10-11 09:00 | 109.8 |
| 2011-10-11 10:00 | 103.1 |
| 2011-10-11 11:00 | 110.4 |
| 2011-10-11 12:00 | 113.9 |
| 2011-10-11 13:00 | 117.1 |
| 2011-10-11 14:00 | 105.3 |
| 2011-10-11 15:00 | 89.7  |
| 2011-10-11 16:00 | 87.0  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-10-11 17:00 | 78.9 |
| 2011-10-11 18:00 | 72.8 |
| 2011-10-11 19:00 | 66.9 |
| 2011-10-11 20:00 | 50.7 |
| 2011-10-11 21:00 | 46.5 |
| 2011-10-11 22:00 | 33.4 |
| 2011-10-11 23:00 | 19.3 |
| 2011-10-12 00:00 | 19.2 |
| 2011-10-12 01:00 | 22.0 |
| 2011-10-12 02:00 | 20.0 |
| 2011-10-12 03:00 | 17.5 |
| 2011-10-12 04:00 | 11.4 |
| 2011-10-12 05:00 | 9.8  |
| 2011-10-12 06:00 | 12.3 |
| 2011-10-12 07:00 | 11.3 |
| 2011-10-12 08:00 | 12.8 |
| 2011-10-12 09:00 | 12.8 |
| 2011-10-12 10:00 | 14.0 |
| 2011-10-12 11:00 | 14.1 |
| 2011-10-12 12:00 | 11.4 |
| 2011-10-12 13:00 | 10.4 |
| 2011-10-12 14:00 | 13.3 |
| 2011-10-12 15:00 | 13.0 |
| 2011-10-12 16:00 | 13.0 |
| 2011-10-12 17:00 | 13.5 |
| 2011-10-12 18:00 | 15.3 |
| 2011-10-12 19:00 | 16.5 |
| 2011-10-12 20:00 | 17.8 |
| 2011-10-12 21:00 | 21.1 |
| 2011-10-12 22:00 | 22.6 |
| 2011-10-12 23:00 | 22.9 |
| 2011-10-13 00:00 | 23.4 |
| 2011-10-13 01:00 | 21.9 |
| 2011-10-13 02:00 | 22.3 |
| 2011-10-13 03:00 | 25.8 |
| 2011-10-13 04:00 | 27.0 |
| 2011-10-13 05:00 | 24.9 |
| 2011-10-13 06:00 | 24.7 |
| 2011-10-13 07:00 | 24.7 |
| 2011-10-13 08:00 | 28.3 |
| 2011-10-13 09:00 | 33.6 |
| 2011-10-13 10:00 | 38.8 |
| 2011-10-13 11:00 | 62.4 |
| 2011-10-13 12:00 | 72.5 |
| 2011-10-13 13:00 | 93.3 |
| 2011-10-13 14:00 | 92.6 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-10-13 15:00 | 89.9  |
| 2011-10-13 16:00 | 88.4  |
| 2011-10-13 17:00 | 88.5  |
| 2011-10-13 18:00 | 84.2  |
| 2011-10-13 19:00 | 89.1  |
| 2011-10-13 20:00 | 82.8  |
| 2011-10-13 21:00 | 79.7  |
| 2011-10-13 22:00 | 82.6  |
| 2011-10-13 23:00 | 93.6  |
| 2011-10-14 00:00 | 101.6 |
| 2011-10-14 01:00 | 90.7  |
| 2011-10-14 02:00 | 85.4  |
| 2011-10-14 03:00 | 85.4  |
| 2011-10-14 04:00 | 85.1  |
| 2011-10-14 05:00 | 89.6  |
| 2011-10-14 06:00 | 85.3  |
| 2011-10-14 07:00 | 82.2  |
| 2011-10-14 08:00 | 77.4  |
| 2011-10-14 09:00 | 73.3  |
| 2011-10-14 10:00 | 77.9  |
| 2011-10-14 11:00 | 78.4  |
| 2011-10-14 12:00 | 77.9  |
| 2011-10-14 13:00 | 84.5  |
| 2011-10-14 14:00 | 89.3  |
| 2011-10-14 15:00 | 90.4  |
| 2011-10-14 16:00 | 102.0 |
| 2011-10-14 17:00 | 88.7  |
| 2011-10-14 18:00 | 79.0  |
| 2011-10-14 19:00 | 63.8  |
| 2011-10-14 20:00 | 59.6  |
| 2011-10-14 21:00 | 59.9  |
| 2011-10-14 22:00 | 56.6  |
| 2011-10-14 23:00 | 68.1  |
| 2011-10-15 00:00 | 78.3  |
| 2011-10-15 01:00 | 126.0 |
| 2011-10-15 02:00 | 145.7 |
| 2011-10-15 03:00 | 177.3 |
| 2011-10-15 04:00 | 184.4 |
| 2011-10-15 05:00 | 233.8 |
| 2011-10-15 06:00 | 255.5 |
| 2011-10-15 07:00 | 265.8 |
| 2011-10-15 08:00 | 263.4 |
| 2011-10-15 09:00 | 262.9 |
| 2011-10-15 10:00 | 239.3 |
| 2011-10-15 11:00 | 246.5 |
| 2011-10-15 12:00 | 248.6 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-10-15 13:00 | 246.0 |
| 2011-10-15 14:00 | 241.8 |
| 2011-10-15 15:00 | 240.0 |
| 2011-10-15 16:00 | 245.0 |
| 2011-10-15 17:00 | 245.0 |
| 2011-10-15 18:00 | 241.0 |
| 2011-10-15 19:00 | 237.1 |
| 2011-10-15 20:00 | 228.6 |
| 2011-10-15 21:00 | 216.8 |
| 2011-10-15 22:00 | 211.1 |
| 2011-10-15 23:00 | 204.2 |
| 2011-10-16 00:00 | 204.2 |
| 2011-10-16 01:00 | 180.5 |
| 2011-10-16 02:00 | 184.4 |
| 2011-10-16 03:00 | 187.8 |
| 2011-10-16 04:00 | 194.6 |
| 2011-10-16 05:00 | 204.4 |
| 2011-10-16 06:00 | 206.3 |
| 2011-10-16 07:00 | 207.9 |
| 2011-10-16 08:00 | 213.5 |
| 2011-10-16 09:00 | 219.8 |
| 2011-10-16 10:00 | 230.2 |
| 2011-10-16 11:00 | 234.9 |
| 2011-10-16 12:00 | 240.2 |
| 2011-10-16 13:00 | 241.5 |
| 2011-10-16 14:00 | 238.2 |
| 2011-10-16 15:00 | 229.3 |
| 2011-10-16 16:00 | 224.9 |
| 2011-10-16 17:00 | 184.6 |
| 2011-10-16 18:00 | 159.7 |
| 2011-10-16 19:00 | 128.4 |
| 2011-10-16 20:00 | 119.8 |
| 2011-10-16 21:00 | 110.2 |
| 2011-10-16 22:00 | 88.9  |
| 2011-10-16 23:00 | 108.2 |
| 2011-10-17 00:00 | 122.4 |
| 2011-10-17 01:00 | 96.7  |
| 2011-10-17 02:00 | 91.7  |
| 2011-10-17 03:00 | 91.2  |
| 2011-10-17 04:00 | 87.4  |
| 2011-10-17 05:00 | 90.1  |
| 2011-10-17 06:00 | 89.2  |
| 2011-10-17 07:00 | 87.8  |
| 2011-10-17 08:00 | 119.3 |
| 2011-10-17 09:00 | 135.9 |
| 2011-10-17 10:00 | 162.2 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-10-17 11:00 | 221.5 |
| 2011-10-17 12:00 | 256.7 |
| 2011-10-17 13:00 | 264.7 |
| 2011-10-17 14:00 | 267.0 |
| 2011-10-17 15:00 | 263.0 |
| 2011-10-17 16:00 | 254.0 |
| 2011-10-17 17:00 | 242.3 |
| 2011-10-17 18:00 | 226.1 |
| 2011-10-17 19:00 | 193.2 |
| 2011-10-17 20:00 | 168.0 |
| 2011-10-17 21:00 | 136.8 |
| 2011-10-17 22:00 | 119.7 |
| 2011-10-17 23:00 | 109.4 |
| 2011-10-18 00:00 | 92.8  |
| 2011-10-18 01:00 | 63.5  |
| 2011-10-18 02:00 | 75.7  |
| 2011-10-18 03:00 | 80.6  |
| 2011-10-18 04:00 | 87.7  |
| 2011-10-18 05:00 | 92.6  |
| 2011-10-18 06:00 | 98.8  |
| 2011-10-18 07:00 | 103.7 |
| 2011-10-18 08:00 | 112.9 |
| 2011-10-18 09:00 | 119.8 |
| 2011-10-18 10:00 | 129.4 |
| 2011-10-18 11:00 | 149.2 |
| 2011-10-18 12:00 | 190.8 |
| 2011-10-18 13:00 | 207.0 |
| 2011-10-18 14:00 | 205.6 |
| 2011-10-18 15:00 | 202.0 |
| 2011-10-18 16:00 | 202.8 |
| 2011-10-18 17:00 | 141.9 |
| 2011-10-18 18:00 | 101.0 |
| 2011-10-18 19:00 | 66.7  |
| 2011-10-18 20:00 | 55.3  |
| 2011-10-18 21:00 | 53.3  |
| 2011-10-18 22:00 | 47.7  |
| 2011-10-18 23:00 | 47.3  |
| 2011-10-19 00:00 | 40.6  |
| 2011-10-19 01:00 | 29.0  |
| 2011-10-19 02:00 | 24.6  |
| 2011-10-19 03:00 | 22.5  |
| 2011-10-19 04:00 | 21.6  |
| 2011-10-19 05:00 | 20.5  |
| 2011-10-19 06:00 | 15.7  |
| 2011-10-19 07:00 | 14.7  |
| 2011-10-19 08:00 | 9.1   |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-10-19 09:00 | 6.1   |
| 2011-10-19 10:00 | 4.2   |
| 2011-10-19 11:00 | 3.1   |
| 2011-10-19 12:00 | 1.0   |
| 2011-10-19 13:00 | 1.0   |
| 2011-10-19 14:00 | 2.0   |
| 2011-10-19 15:00 | 4.0   |
| 2011-10-19 16:00 | 4.4   |
| 2011-10-19 17:00 | 7.4   |
| 2011-10-19 18:00 | 11.6  |
| 2011-10-19 19:00 | 18.6  |
| 2011-10-19 20:00 | 20.9  |
| 2011-10-19 21:00 | 25.2  |
| 2011-10-19 22:00 | 30.7  |
| 2011-10-19 23:00 | 32.6  |
| 2011-10-20 00:00 | 36.3  |
| 2011-10-20 01:00 | 51.5  |
| 2011-10-20 02:00 | 66.8  |
| 2011-10-20 03:00 | 79.5  |
| 2011-10-20 04:00 | 95.2  |
| 2011-10-20 05:00 | 107.3 |
| 2011-10-20 06:00 | 115.9 |
| 2011-10-20 07:00 | 136.1 |
| 2011-10-20 08:00 | 130.1 |
| 2011-10-20 09:00 | 120.0 |
| 2011-10-20 10:00 | 117.8 |
| 2011-10-20 11:00 | 117.8 |
| 2011-10-20 12:00 | 119.0 |
| 2011-10-20 13:00 | 120.2 |
| 2011-10-20 14:00 | 130.8 |
| 2011-10-20 15:00 | 140.1 |
| 2011-10-20 16:00 | 149.6 |
| 2011-10-20 17:00 | 133.0 |
| 2011-10-20 18:00 | 105.7 |
| 2011-10-20 19:00 | 82.9  |
| 2011-10-20 20:00 | 68.7  |
| 2011-10-20 21:00 | 53.6  |
| 2011-10-20 22:00 | 43.1  |
| 2011-10-20 23:00 | 40.1  |
| 2011-10-21 00:00 | 38.3  |
| 2011-10-21 01:00 | 127.8 |
| 2011-10-21 02:00 | 114.4 |
| 2011-10-21 03:00 | 100.6 |
| 2011-10-21 04:00 | 99.5  |
| 2011-10-21 05:00 | 87.6  |
| 2011-10-21 06:00 | 80.9  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-10-21 07:00 | 79.7  |
| 2011-10-21 08:00 | 75.6  |
| 2011-10-21 09:00 | 73.4  |
| 2011-10-21 10:00 | 70.9  |
| 2011-10-21 11:00 | 85.5  |
| 2011-10-21 12:00 | 114.6 |
| 2011-10-21 13:00 | 138.5 |
| 2011-10-21 14:00 | 146.9 |
| 2011-10-21 15:00 | 151.4 |
| 2011-10-21 16:00 | 162.3 |
| 2011-10-21 17:00 | 144.3 |
| 2011-10-21 18:00 | 126.9 |
| 2011-10-21 19:00 | 119.2 |
| 2011-10-21 20:00 | 106.8 |
| 2011-10-21 21:00 | 96.5  |
| 2011-10-21 22:00 | 90.2  |
| 2011-10-21 23:00 | 81.2  |
| 2011-10-22 00:00 | 69.1  |
| 2011-10-22 01:00 | 66.7  |
| 2011-10-22 02:00 | 50.5  |
| 2011-10-22 03:00 | 40.7  |
| 2011-10-22 04:00 | 27.0  |
| 2011-10-22 05:00 | 22.0  |
| 2011-10-22 06:00 | 21.2  |
| 2011-10-22 07:00 | 16.4  |
| 2011-10-22 08:00 | 14.8  |
| 2011-10-22 09:00 | 13.5  |
| 2011-10-22 10:00 | 12.4  |
| 2011-10-22 11:00 | 20.7  |
| 2011-10-22 12:00 | 26.8  |
| 2011-10-22 13:00 | 41.7  |
| 2011-10-22 14:00 | 43.3  |
| 2011-10-22 15:00 | 47.5  |
| 2011-10-22 16:00 | 51.4  |
| 2011-10-22 17:00 | 36.7  |
| 2011-10-22 18:00 | 32.9  |
| 2011-10-22 19:00 | 28.0  |
| 2011-10-22 20:00 | 30.6  |
| 2011-10-22 21:00 | 28.9  |
| 2011-10-22 22:00 | 30.1  |
| 2011-10-22 23:00 | 25.2  |
| 2011-10-23 00:00 | 29.0  |
| 2011-10-23 01:00 | 3.4   |
| 2011-10-23 02:00 | 1.4   |
| 2011-10-23 03:00 | 1.4   |
| 2011-10-23 04:00 | 1.4   |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-10-23 05:00 | 0.9  |
| 2011-10-23 06:00 | 0.4  |
| 2011-10-23 07:00 | 0.4  |
| 2011-10-23 08:00 | 0.9  |
| 2011-10-23 09:00 | 2.0  |
| 2011-10-23 10:00 | 3.3  |
| 2011-10-23 11:00 | 3.6  |
| 2011-10-23 12:00 | 4.5  |
| 2011-10-23 13:00 | 6.1  |
| 2011-10-23 14:00 | 9.4  |
| 2011-10-23 15:00 | 12.5 |
| 2011-10-23 16:00 | 15.1 |
| 2011-10-23 17:00 | 14.4 |
| 2011-10-23 18:00 | 10.6 |
| 2011-10-23 19:00 | 10.6 |
| 2011-10-23 20:00 | 7.3  |
| 2011-10-23 21:00 | 5.0  |
| 2011-10-23 22:00 | 0.9  |
| 2011-10-23 23:00 | 1.4  |
| 2011-10-24 00:00 | 1.4  |
| 2011-10-24 01:00 | 7.9  |
| 2011-10-24 02:00 | 7.9  |
| 2011-10-24 03:00 | 7.6  |
| 2011-10-24 04:00 | 9.6  |
| 2011-10-24 05:00 | 7.0  |
| 2011-10-24 06:00 | 9.6  |
| 2011-10-24 07:00 | 9.1  |
| 2011-10-24 08:00 | 9.6  |
| 2011-10-24 09:00 | 11.7 |
| 2011-10-24 10:00 | 12.8 |
| 2011-10-24 11:00 | 13.7 |
| 2011-10-24 12:00 | 15.6 |
| 2011-10-24 13:00 | 18.5 |
| 2011-10-24 14:00 | 20.1 |
| 2011-10-24 15:00 | 20.9 |
| 2011-10-24 16:00 | 20.4 |
| 2011-10-24 17:00 | 23.3 |
| 2011-10-24 18:00 | 29.8 |
| 2011-10-24 19:00 | 34.3 |
| 2011-10-24 20:00 | 33.6 |
| 2011-10-24 21:00 | 39.3 |
| 2011-10-24 22:00 | 40.3 |
| 2011-10-24 23:00 | 52.8 |
| 2011-10-25 00:00 | 53.3 |
| 2011-10-25 01:00 | 19.4 |
| 2011-10-25 02:00 | 18.9 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-10-25 03:00 | 14.9  |
| 2011-10-25 04:00 | 10.2  |
| 2011-10-25 05:00 | 9.3   |
| 2011-10-25 06:00 | 8.2   |
| 2011-10-25 07:00 | 9.8   |
| 2011-10-25 08:00 | 16.6  |
| 2011-10-25 09:00 | 17.7  |
| 2011-10-25 10:00 | 21.5  |
| 2011-10-25 11:00 | 21.5  |
| 2011-10-25 12:00 | 28.2  |
| 2011-10-25 13:00 | 38.9  |
| 2011-10-25 14:00 | 38.4  |
| 2011-10-25 15:00 | 41.3  |
| 2011-10-25 16:00 | 37.9  |
| 2011-10-25 17:00 | 37.9  |
| 2011-10-25 18:00 | 44.0  |
| 2011-10-25 19:00 | 56.8  |
| 2011-10-25 20:00 | 51.1  |
| 2011-10-25 21:00 | 52.4  |
| 2011-10-25 22:00 | 53.7  |
| 2011-10-25 23:00 | 64.3  |
| 2011-10-26 00:00 | 65.4  |
| 2011-10-26 01:00 | 83.1  |
| 2011-10-26 02:00 | 89.8  |
| 2011-10-26 03:00 | 113.1 |
| 2011-10-26 04:00 | 133.8 |
| 2011-10-26 05:00 | 153.1 |
| 2011-10-26 06:00 | 191.5 |
| 2011-10-26 07:00 | 217.9 |
| 2011-10-26 08:00 | 226.8 |
| 2011-10-26 09:00 | 236.7 |
| 2011-10-26 10:00 | 250.4 |
| 2011-10-26 11:00 | 254.2 |
| 2011-10-26 12:00 | 255.8 |
| 2011-10-26 13:00 | 257.2 |
| 2011-10-26 14:00 | 257.2 |
| 2011-10-26 15:00 | 257.2 |
| 2011-10-26 16:00 | 257.2 |
| 2011-10-26 17:00 | 255.4 |
| 2011-10-26 18:00 | 247.2 |
| 2011-10-26 19:00 | 236.1 |
| 2011-10-26 20:00 | 224.1 |
| 2011-10-26 21:00 | 218.8 |
| 2011-10-26 22:00 | 204.1 |
| 2011-10-26 23:00 | 192.1 |
| 2011-10-27 00:00 | 180.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-10-27 01:00 | 154.8 |
| 2011-10-27 02:00 | 141.1 |
| 2011-10-27 03:00 | 122.3 |
| 2011-10-27 04:00 | 107.5 |
| 2011-10-27 05:00 | 90.3  |
| 2011-10-27 06:00 | 74.0  |
| 2011-10-27 07:00 | 63.9  |
| 2011-10-27 08:00 | 60.8  |
| 2011-10-27 09:00 | 59.5  |
| 2011-10-27 10:00 | 61.0  |
| 2011-10-27 11:00 | 83.3  |
| 2011-10-27 12:00 | 101.5 |
| 2011-10-27 13:00 | 126.1 |
| 2011-10-27 14:00 | 121.5 |
| 2011-10-27 15:00 | 115.0 |
| 2011-10-27 16:00 | 108.2 |
| 2011-10-27 17:00 | 76.7  |
| 2011-10-27 18:00 | 62.8  |
| 2011-10-27 19:00 | 49.5  |
| 2011-10-27 20:00 | 39.6  |
| 2011-10-27 21:00 | 24.6  |
| 2011-10-27 22:00 | 21.3  |
| 2011-10-27 23:00 | 16.6  |
| 2011-10-28 00:00 | 18.0  |
| 2011-10-28 01:00 | 22.3  |
| 2011-10-28 02:00 | 25.4  |
| 2011-10-28 03:00 | 26.6  |
| 2011-10-28 04:00 | 27.8  |
| 2011-10-28 05:00 | 30.7  |
| 2011-10-28 06:00 | 34.0  |
| 2011-10-28 07:00 | 36.0  |
| 2011-10-28 08:00 | 42.1  |
| 2011-10-28 09:00 | 54.7  |
| 2011-10-28 10:00 | 65.0  |
| 2011-10-28 11:00 | 95.0  |
| 2011-10-28 12:00 | 130.1 |
| 2011-10-28 13:00 | 168.5 |
| 2011-10-28 14:00 | 174.8 |
| 2011-10-28 15:00 | 192.4 |
| 2011-10-28 16:00 | 201.6 |
| 2011-10-28 17:00 | 195.1 |
| 2011-10-28 18:00 | 191.1 |
| 2011-10-28 19:00 | 182.3 |
| 2011-10-28 20:00 | 170.0 |
| 2011-10-28 21:00 | 160.9 |
| 2011-10-28 22:00 | 166.2 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-10-28 23:00 | 156.9 |
| 2011-10-29 00:00 | 153.8 |
| 2011-10-29 01:00 | 155.1 |
| 2011-10-29 02:00 | 134.6 |
| 2011-10-29 03:00 | 117.6 |
| 2011-10-29 04:00 | 97.3  |
| 2011-10-29 05:00 | 92.8  |
| 2011-10-29 06:00 | 77.7  |
| 2011-10-29 07:00 | 74.3  |
| 2011-10-29 08:00 | 70.9  |
| 2011-10-29 09:00 | 63.5  |
| 2011-10-29 10:00 | 61.5  |
| 2011-10-29 11:00 | 58.9  |
| 2011-10-29 12:00 | 58.3  |
| 2011-10-29 13:00 | 60.9  |
| 2011-10-29 14:00 | 51.3  |
| 2011-10-29 15:00 | 45.9  |
| 2011-10-29 16:00 | 36.3  |
| 2011-10-29 17:00 | 18.1  |
| 2011-10-29 18:00 | 8.9   |
| 2011-10-29 19:00 | 9.3   |
| 2011-10-29 20:00 | 11.5  |
| 2011-10-29 21:00 | 25.6  |
| 2011-10-29 22:00 | 34.5  |
| 2011-10-29 23:00 | 42.5  |
| 2011-10-30 00:00 | 47.8  |
| 2011-10-30 01:00 | 73.5  |
| 2011-10-30 02:00 | 86.4  |
| 2011-10-30 03:00 | 98.7  |
| 2011-10-30 04:00 | 119.8 |
| 2011-10-30 05:00 | 152.3 |
| 2011-10-30 06:00 | 201.9 |
| 2011-10-30 07:00 | 230.3 |
| 2011-10-30 08:00 | 244.7 |
| 2011-10-30 09:00 | 255.5 |
| 2011-10-30 10:00 | 259.6 |
| 2011-10-30 11:00 | 264.5 |
| 2011-10-30 12:00 | 268.3 |
| 2011-10-30 13:00 | 268.3 |
| 2011-10-30 14:00 | 268.3 |
| 2011-10-30 15:00 | 265.1 |
| 2011-10-30 16:00 | 258.8 |
| 2011-10-30 17:00 | 236.7 |
| 2011-10-30 18:00 | 165.6 |
| 2011-10-30 19:00 | 89.6  |
| 2011-10-30 20:00 | 108.1 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-10-30 21:00 | 121.8 |
| 2011-10-30 22:00 | 179.2 |
| 2011-10-30 23:00 | 254.2 |
| 2011-10-31 00:00 | 258.8 |
| 2011-10-31 01:00 | 268.3 |
| 2011-10-31 02:00 | 268.3 |
| 2011-10-31 03:00 | 262.0 |
| 2011-10-31 04:00 | 262.0 |
| 2011-10-31 05:00 | 262.0 |
| 2011-10-31 06:00 | 261.9 |
| 2011-10-31 07:00 | 268.1 |
| 2011-10-31 08:00 | 261.6 |
| 2011-10-31 09:00 | 257.7 |
| 2011-10-31 10:00 | 253.3 |
| 2011-10-31 11:00 | 250.2 |
| 2011-10-31 12:00 | 237.0 |
| 2011-10-31 13:00 | 231.3 |
| 2011-10-31 14:00 | 224.1 |
| 2011-10-31 15:00 | 215.1 |
| 2011-10-31 16:00 | 199.5 |
| 2011-10-31 17:00 | 172.6 |
| 2011-10-31 18:00 | 148.9 |
| 2011-10-31 19:00 | 128.5 |
| 2011-10-31 20:00 | 102.2 |
| 2011-10-31 21:00 | 91.1  |
| 2011-10-31 22:00 | 71.8  |
| 2011-10-31 23:00 | 71.4  |
| 2011-11-01 00:00 | 63.0  |
| 2011-11-01 01:00 | 63.5  |
| 2011-11-01 02:00 | 51.4  |
| 2011-11-01 03:00 | 47.2  |
| 2011-11-01 04:00 | 45.6  |
| 2011-11-01 05:00 | 35.9  |
| 2011-11-01 06:00 | 26.9  |
| 2011-11-01 07:00 | 20.8  |
| 2011-11-01 08:00 | 17.6  |
| 2011-11-01 09:00 | 12.8  |
| 2011-11-01 10:00 | 11.8  |
| 2011-11-01 11:00 | 3.5   |
| 2011-11-01 12:00 | 5.3   |
| 2011-11-01 13:00 | 6.0   |
| 2011-11-01 14:00 | 5.1   |
| 2011-11-01 15:00 | 5.1   |
| 2011-11-01 16:00 | 5.6   |
| 2011-11-01 17:00 | 2.1   |
| 2011-11-01 18:00 | 2.6   |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-01 19:00 | 4.7   |
| 2011-11-01 20:00 | 3.6   |
| 2011-11-01 21:00 | 2.7   |
| 2011-11-01 22:00 | 1.9   |
| 2011-11-01 23:00 | 1.3   |
| 2011-11-02 00:00 | 1.0   |
| 2011-11-02 01:00 | 7.9   |
| 2011-11-02 02:00 | 5.4   |
| 2011-11-02 03:00 | 5.4   |
| 2011-11-02 04:00 | 5.4   |
| 2011-11-02 05:00 | 5.4   |
| 2011-11-02 06:00 | 5.4   |
| 2011-11-02 07:00 | 5.4   |
| 2011-11-02 08:00 | 5.3   |
| 2011-11-02 09:00 | 4.3   |
| 2011-11-02 10:00 | 4.0   |
| 2011-11-02 11:00 | 4.0   |
| 2011-11-02 12:00 | 5.0   |
| 2011-11-02 13:00 | 6.9   |
| 2011-11-02 14:00 | 3.7   |
| 2011-11-02 15:00 | 4.5   |
| 2011-11-02 16:00 | 5.8   |
| 2011-11-02 17:00 | 5.0   |
| 2011-11-02 18:00 | 4.2   |
| 2011-11-02 19:00 | 5.1   |
| 2011-11-02 20:00 | 4.2   |
| 2011-11-02 21:00 | 5.0   |
| 2011-11-02 22:00 | 9.7   |
| 2011-11-02 23:00 | 9.7   |
| 2011-11-03 00:00 | 10.5  |
| 2011-11-03 01:00 | 14.4  |
| 2011-11-03 02:00 | 14.4  |
| 2011-11-03 03:00 | 16.9  |
| 2011-11-03 04:00 | 18.2  |
| 2011-11-03 05:00 | 18.2  |
| 2011-11-03 06:00 | 19.1  |
| 2011-11-03 07:00 | 19.6  |
| 2011-11-03 08:00 | 20.2  |
| 2011-11-03 09:00 | 21.0  |
| 2011-11-03 10:00 | 22.3  |
| 2011-11-03 11:00 | 45.3  |
| 2011-11-03 12:00 | 59.7  |
| 2011-11-03 13:00 | 76.1  |
| 2011-11-03 14:00 | 87.9  |
| 2011-11-03 15:00 | 104.6 |
| 2011-11-03 16:00 | 121.7 |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-03 17:00 | 105.8 |
| 2011-11-03 18:00 | 101.7 |
| 2011-11-03 19:00 | 95.4  |
| 2011-11-03 20:00 | 101.7 |
| 2011-11-03 21:00 | 108.1 |
| 2011-11-03 22:00 | 116.1 |
| 2011-11-03 23:00 | 109.0 |
| 2011-11-04 00:00 | 105.3 |
| 2011-11-04 01:00 | 97.5  |
| 2011-11-04 02:00 | 78.7  |
| 2011-11-04 03:00 | 60.2  |
| 2011-11-04 04:00 | 51.6  |
| 2011-11-04 05:00 | 45.5  |
| 2011-11-04 06:00 | 42.0  |
| 2011-11-04 07:00 | 28.8  |
| 2011-11-04 08:00 | 47.4  |
| 2011-11-04 09:00 | 59.1  |
| 2011-11-04 10:00 | 67.2  |
| 2011-11-04 11:00 | 75.3  |
| 2011-11-04 12:00 | 87.7  |
| 2011-11-04 13:00 | 103.7 |
| 2011-11-04 14:00 | 111.8 |
| 2011-11-04 15:00 | 118.1 |
| 2011-11-04 16:00 | 128.8 |
| 2011-11-04 17:00 | 143.0 |
| 2011-11-04 18:00 | 147.5 |
| 2011-11-04 19:00 | 157.4 |
| 2011-11-04 20:00 | 154.4 |
| 2011-11-04 21:00 | 153.4 |
| 2011-11-04 22:00 | 151.4 |
| 2011-11-04 23:00 | 151.3 |
| 2011-11-05 00:00 | 142.1 |
| 2011-11-05 01:00 | 159.9 |
| 2011-11-05 02:00 | 175.6 |
| 2011-11-05 03:00 | 189.7 |
| 2011-11-05 04:00 | 212.6 |
| 2011-11-05 05:00 | 207.8 |
| 2011-11-05 06:00 | 212.1 |
| 2011-11-05 07:00 | 211.9 |
| 2011-11-05 08:00 | 218.4 |
| 2011-11-05 09:00 | 219.8 |
| 2011-11-05 10:00 | 224.8 |
| 2011-11-05 11:00 | 230.5 |
| 2011-11-05 12:00 | 232.4 |
| 2011-11-05 13:00 | 232.1 |
| 2011-11-05 14:00 | 232.0 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-05 15:00 | 229.7 |
| 2011-11-05 16:00 | 226.2 |
| 2011-11-05 17:00 | 205.7 |
| 2011-11-05 18:00 | 198.4 |
| 2011-11-05 19:00 | 182.8 |
| 2011-11-05 20:00 | 150.6 |
| 2011-11-05 21:00 | 131.2 |
| 2011-11-05 22:00 | 106.9 |
| 2011-11-05 23:00 | 74.7  |
| 2011-11-06 00:00 | 57.4  |
| 2011-11-06 01:00 | 42.4  |
| 2011-11-06 02:00 | 70.7  |
| 2011-11-06 03:00 | 26.2  |
| 2011-11-06 04:00 | 27.0  |
| 2011-11-06 05:00 | 20.0  |
| 2011-11-06 06:00 | 22.4  |
| 2011-11-06 07:00 | 42.5  |
| 2011-11-06 08:00 | 56.2  |
| 2011-11-06 09:00 | 77.1  |
| 2011-11-06 10:00 | 114.7 |
| 2011-11-06 11:00 | 159.1 |
| 2011-11-06 12:00 | 213.4 |
| 2011-11-06 13:00 | 216.8 |
| 2011-11-06 14:00 | 233.0 |
| 2011-11-06 15:00 | 234.5 |
| 2011-11-06 16:00 | 220.5 |
| 2011-11-06 17:00 | 202.1 |
| 2011-11-06 18:00 | 179.6 |
| 2011-11-06 19:00 | 173.7 |
| 2011-11-06 20:00 | 171.7 |
| 2011-11-06 21:00 | 157.6 |
| 2011-11-06 22:00 | 152.4 |
| 2011-11-06 23:00 | 141.7 |
| 2011-11-07 00:00 | 136.0 |
| 2011-11-07 01:00 | 135.5 |
| 2011-11-07 02:00 | 123.0 |
| 2011-11-07 03:00 | 117.3 |
| 2011-11-07 04:00 | 89.7  |
| 2011-11-07 05:00 | 76.7  |
| 2011-11-07 06:00 | 61.0  |
| 2011-11-07 07:00 | 44.5  |
| 2011-11-07 08:00 | 35.4  |
| 2011-11-07 09:00 | 27.1  |
| 2011-11-07 10:00 | 30.7  |
| 2011-11-07 11:00 | 38.2  |
| 2011-11-07 12:00 | 43.6  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-07 13:00 | 51.3  |
| 2011-11-07 14:00 | 63.2  |
| 2011-11-07 15:00 | 76.0  |
| 2011-11-07 16:00 | 73.7  |
| 2011-11-07 17:00 | 72.1  |
| 2011-11-07 18:00 | 63.6  |
| 2011-11-07 19:00 | 64.8  |
| 2011-11-07 20:00 | 80.3  |
| 2011-11-07 21:00 | 89.6  |
| 2011-11-07 22:00 | 99.5  |
| 2011-11-07 23:00 | 114.9 |
| 2011-11-08 00:00 | 118.0 |
| 2011-11-08 01:00 | 117.2 |
| 2011-11-08 02:00 | 123.4 |
| 2011-11-08 03:00 | 128.6 |
| 2011-11-08 04:00 | 127.6 |
| 2011-11-08 05:00 | 115.7 |
| 2011-11-08 06:00 | 110.6 |
| 2011-11-08 07:00 | 107.8 |
| 2011-11-08 08:00 | 107.9 |
| 2011-11-08 09:00 | 101.8 |
| 2011-11-08 10:00 | 116.3 |
| 2011-11-08 11:00 | 135.9 |
| 2011-11-08 12:00 | 148.1 |
| 2011-11-08 13:00 | 143.2 |
| 2011-11-08 14:00 | 147.0 |
| 2011-11-08 15:00 | 146.0 |
| 2011-11-08 16:00 | 105.4 |
| 2011-11-08 17:00 | 80.8  |
| 2011-11-08 18:00 | 53.9  |
| 2011-11-08 19:00 | 43.7  |
| 2011-11-08 20:00 | 34.6  |
| 2011-11-08 21:00 | 26.8  |
| 2011-11-08 22:00 | 21.4  |
| 2011-11-08 23:00 | 17.5  |
| 2011-11-09 00:00 | 16.9  |
| 2011-11-09 01:00 | 20.8  |
| 2011-11-09 02:00 | 10.5  |
| 2011-11-09 03:00 | 9.3   |
| 2011-11-09 04:00 | 5.2   |
| 2011-11-09 05:00 | 5.2   |
| 2011-11-09 06:00 | 6.8   |
| 2011-11-09 07:00 | 6.5   |
| 2011-11-09 08:00 | 1.8   |
| 2011-11-09 09:00 | 1.4   |
| 2011-11-09 10:00 | 6.9   |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-09 11:00 | 13.2  |
| 2011-11-09 12:00 | 24.1  |
| 2011-11-09 13:00 | 25.6  |
| 2011-11-09 14:00 | 25.6  |
| 2011-11-09 15:00 | 26.6  |
| 2011-11-09 16:00 | 15.3  |
| 2011-11-09 17:00 | 7.2   |
| 2011-11-09 18:00 | 6.8   |
| 2011-11-09 19:00 | 5.2   |
| 2011-11-09 20:00 | 4.2   |
| 2011-11-09 21:00 | 3.4   |
| 2011-11-09 22:00 | 5.4   |
| 2011-11-09 23:00 | 3.4   |
| 2011-11-10 00:00 | 3.9   |
| 2011-11-10 01:00 | 2.9   |
| 2011-11-10 02:00 | 3.7   |
| 2011-11-10 03:00 | 5.1   |
| 2011-11-10 04:00 | 7.1   |
| 2011-11-10 05:00 | 7.1   |
| 2011-11-10 06:00 | 9.3   |
| 2011-11-10 07:00 | 14.8  |
| 2011-11-10 08:00 | 22.4  |
| 2011-11-10 09:00 | 30.1  |
| 2011-11-10 10:00 | 40.3  |
| 2011-11-10 11:00 | 67.1  |
| 2011-11-10 12:00 | 90.5  |
| 2011-11-10 13:00 | 98.7  |
| 2011-11-10 14:00 | 110.6 |
| 2011-11-10 15:00 | 121.0 |
| 2011-11-10 16:00 | 134.7 |
| 2011-11-10 17:00 | 137.4 |
| 2011-11-10 18:00 | 144.9 |
| 2011-11-10 19:00 | 148.1 |
| 2011-11-10 20:00 | 159.8 |
| 2011-11-10 21:00 | 172.6 |
| 2011-11-10 22:00 | 206.2 |
| 2011-11-10 23:00 | 224.2 |
| 2011-11-11 00:00 | 242.5 |
| 2011-11-11 01:00 | 219.4 |
| 2011-11-11 02:00 | 231.0 |
| 2011-11-11 03:00 | 243.6 |
| 2011-11-11 04:00 | 261.1 |
| 2011-11-11 05:00 | 267.9 |
| 2011-11-11 06:00 | 267.9 |
| 2011-11-11 07:00 | 267.0 |
| 2011-11-11 08:00 | 266.3 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-11 09:00 | 264.0 |
| 2011-11-11 10:00 | 249.9 |
| 2011-11-11 11:00 | 240.9 |
| 2011-11-11 12:00 | 238.3 |
| 2011-11-11 13:00 | 242.0 |
| 2011-11-11 14:00 | 255.4 |
| 2011-11-11 15:00 | 254.9 |
| 2011-11-11 16:00 | 261.2 |
| 2011-11-11 17:00 | 261.3 |
| 2011-11-11 18:00 | 264.7 |
| 2011-11-11 19:00 | 261.4 |
| 2011-11-11 20:00 | 257.6 |
| 2011-11-11 21:00 | 256.0 |
| 2011-11-11 22:00 | 260.7 |
| 2011-11-11 23:00 | 264.5 |
| 2011-11-12 00:00 | 267.7 |
| 2011-11-12 01:00 | 199.8 |
| 2011-11-12 02:00 | 234.3 |
| 2011-11-12 03:00 | 253.9 |
| 2011-11-12 04:00 | 255.5 |
| 2011-11-12 05:00 | 255.6 |
| 2011-11-12 06:00 | 255.6 |
| 2011-11-12 07:00 | 255.6 |
| 2011-11-12 08:00 | 254.1 |
| 2011-11-12 09:00 | 247.8 |
| 2011-11-12 10:00 | 247.8 |
| 2011-11-12 11:00 | 247.8 |
| 2011-11-12 12:00 | 244.0 |
| 2011-11-12 13:00 | 243.4 |
| 2011-11-12 14:00 | 234.6 |
| 2011-11-12 15:00 | 227.4 |
| 2011-11-12 16:00 | 215.7 |
| 2011-11-12 17:00 | 171.0 |
| 2011-11-12 18:00 | 138.8 |
| 2011-11-12 19:00 | 135.4 |
| 2011-11-12 20:00 | 122.7 |
| 2011-11-12 21:00 | 112.0 |
| 2011-11-12 22:00 | 114.5 |
| 2011-11-12 23:00 | 110.4 |
| 2011-11-13 00:00 | 109.3 |
| 2011-11-13 01:00 | 102.5 |
| 2011-11-13 02:00 | 101.4 |
| 2011-11-13 03:00 | 97.2  |
| 2011-11-13 04:00 | 87.5  |
| 2011-11-13 05:00 | 67.3  |
| 2011-11-13 06:00 | 51.9  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-13 07:00 | 38.5  |
| 2011-11-13 08:00 | 22.3  |
| 2011-11-13 09:00 | 15.2  |
| 2011-11-13 10:00 | 20.2  |
| 2011-11-13 11:00 | 28.8  |
| 2011-11-13 12:00 | 34.2  |
| 2011-11-13 13:00 | 33.6  |
| 2011-11-13 14:00 | 29.5  |
| 2011-11-13 15:00 | 32.7  |
| 2011-11-13 16:00 | 31.9  |
| 2011-11-13 17:00 | 27.2  |
| 2011-11-13 18:00 | 30.8  |
| 2011-11-13 19:00 | 37.9  |
| 2011-11-13 20:00 | 41.0  |
| 2011-11-13 21:00 | 60.4  |
| 2011-11-13 22:00 | 66.7  |
| 2011-11-13 23:00 | 89.3  |
| 2011-11-14 00:00 | 109.1 |
| 2011-11-14 01:00 | 114.2 |
| 2011-11-14 02:00 | 130.7 |
| 2011-11-14 03:00 | 141.1 |
| 2011-11-14 04:00 | 148.2 |
| 2011-11-14 05:00 | 160.8 |
| 2011-11-14 06:00 | 159.9 |
| 2011-11-14 07:00 | 175.2 |
| 2011-11-14 08:00 | 183.5 |
| 2011-11-14 09:00 | 203.2 |
| 2011-11-14 10:00 | 206.9 |
| 2011-11-14 11:00 | 218.8 |
| 2011-11-14 12:00 | 227.5 |
| 2011-11-14 13:00 | 229.1 |
| 2011-11-14 14:00 | 232.2 |
| 2011-11-14 15:00 | 240.0 |
| 2011-11-14 16:00 | 243.8 |
| 2011-11-14 17:00 | 248.0 |
| 2011-11-14 18:00 | 248.6 |
| 2011-11-14 19:00 | 236.3 |
| 2011-11-14 20:00 | 236.2 |
| 2011-11-14 21:00 | 227.5 |
| 2011-11-14 22:00 | 221.1 |
| 2011-11-14 23:00 | 201.0 |
| 2011-11-15 00:00 | 186.9 |
| 2011-11-15 01:00 | 161.4 |
| 2011-11-15 02:00 | 133.3 |
| 2011-11-15 03:00 | 113.3 |
| 2011-11-15 04:00 | 117.4 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-15 05:00 | 121.1 |
| 2011-11-15 06:00 | 121.0 |
| 2011-11-15 07:00 | 153.6 |
| 2011-11-15 08:00 | 196.6 |
| 2011-11-15 09:00 | 220.7 |
| 2011-11-15 10:00 | 240.3 |
| 2011-11-15 11:00 | 251.6 |
| 2011-11-15 12:00 | 264.3 |
| 2011-11-15 13:00 | 257.2 |
| 2011-11-15 14:00 | 245.8 |
| 2011-11-15 15:00 | 234.6 |
| 2011-11-15 16:00 | 208.6 |
| 2011-11-15 17:00 | 202.2 |
| 2011-11-15 18:00 | 175.0 |
| 2011-11-15 19:00 | 173.4 |
| 2011-11-15 20:00 | 175.2 |
| 2011-11-15 21:00 | 176.1 |
| 2011-11-15 22:00 | 154.1 |
| 2011-11-15 23:00 | 141.3 |
| 2011-11-16 00:00 | 126.9 |
| 2011-11-16 01:00 | 63.3  |
| 2011-11-16 02:00 | 57.5  |
| 2011-11-16 03:00 | 54.2  |
| 2011-11-16 04:00 | 43.0  |
| 2011-11-16 05:00 | 29.6  |
| 2011-11-16 06:00 | 18.2  |
| 2011-11-16 07:00 | 11.8  |
| 2011-11-16 08:00 | 8.0   |
| 2011-11-16 09:00 | 5.6   |
| 2011-11-16 10:00 | 9.3   |
| 2011-11-16 11:00 | 12.8  |
| 2011-11-16 12:00 | 22.3  |
| 2011-11-16 13:00 | 36.0  |
| 2011-11-16 14:00 | 55.6  |
| 2011-11-16 15:00 | 85.5  |
| 2011-11-16 16:00 | 86.9  |
| 2011-11-16 17:00 | 88.8  |
| 2011-11-16 18:00 | 90.9  |
| 2011-11-16 19:00 | 88.8  |
| 2011-11-16 20:00 | 82.6  |
| 2011-11-16 21:00 | 77.7  |
| 2011-11-16 22:00 | 71.7  |
| 2011-11-16 23:00 | 73.6  |
| 2011-11-17 00:00 | 73.2  |
| 2011-11-17 01:00 | 86.1  |
| 2011-11-17 02:00 | 57.1  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-17 03:00 | 41.9  |
| 2011-11-17 04:00 | 39.3  |
| 2011-11-17 05:00 | 32.5  |
| 2011-11-17 06:00 | 41.9  |
| 2011-11-17 07:00 | 27.4  |
| 2011-11-17 08:00 | 17.2  |
| 2011-11-17 09:00 | 15.0  |
| 2011-11-17 10:00 | 23.7  |
| 2011-11-17 11:00 | 32.8  |
| 2011-11-17 12:00 | 56.1  |
| 2011-11-17 13:00 | 57.3  |
| 2011-11-17 14:00 | 56.4  |
| 2011-11-17 15:00 | 64.2  |
| 2011-11-17 16:00 | 47.6  |
| 2011-11-17 17:00 | 35.0  |
| 2011-11-17 18:00 | 30.1  |
| 2011-11-17 19:00 | 44.7  |
| 2011-11-17 20:00 | 61.8  |
| 2011-11-17 21:00 | 79.1  |
| 2011-11-17 22:00 | 76.3  |
| 2011-11-17 23:00 | 82.5  |
| 2011-11-18 00:00 | 80.7  |
| 2011-11-18 01:00 | 198.3 |
| 2011-11-18 02:00 | 196.4 |
| 2011-11-18 03:00 | 195.6 |
| 2011-11-18 04:00 | 210.6 |
| 2011-11-18 05:00 | 213.7 |
| 2011-11-18 06:00 | 223.7 |
| 2011-11-18 07:00 | 224.4 |
| 2011-11-18 08:00 | 232.5 |
| 2011-11-18 09:00 | 232.5 |
| 2011-11-18 10:00 | 238.8 |
| 2011-11-18 11:00 | 243.3 |
| 2011-11-18 12:00 | 239.4 |
| 2011-11-18 13:00 | 243.1 |
| 2011-11-18 14:00 | 243.1 |
| 2011-11-18 15:00 | 243.1 |
| 2011-11-18 16:00 | 235.3 |
| 2011-11-18 17:00 | 226.5 |
| 2011-11-18 18:00 | 217.3 |
| 2011-11-18 19:00 | 202.5 |
| 2011-11-18 20:00 | 197.5 |
| 2011-11-18 21:00 | 182.8 |
| 2011-11-18 22:00 | 174.8 |
| 2011-11-18 23:00 | 159.9 |
| 2011-11-19 00:00 | 147.7 |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-19 01:00 | 120.6 |
| 2011-11-19 02:00 | 109.4 |
| 2011-11-19 03:00 | 112.6 |
| 2011-11-19 04:00 | 101.6 |
| 2011-11-19 05:00 | 94.0  |
| 2011-11-19 06:00 | 84.8  |
| 2011-11-19 07:00 | 86.7  |
| 2011-11-19 08:00 | 94.6  |
| 2011-11-19 09:00 | 93.4  |
| 2011-11-19 10:00 | 116.6 |
| 2011-11-19 11:00 | 143.3 |
| 2011-11-19 12:00 | 193.1 |
| 2011-11-19 13:00 | 208.1 |
| 2011-11-19 14:00 | 231.8 |
| 2011-11-19 15:00 | 248.2 |
| 2011-11-19 16:00 | 248.2 |
| 2011-11-19 17:00 | 254.3 |
| 2011-11-19 18:00 | 255.8 |
| 2011-11-19 19:00 | 255.8 |
| 2011-11-19 20:00 | 252.9 |
| 2011-11-19 21:00 | 252.9 |
| 2011-11-19 22:00 | 246.8 |
| 2011-11-19 23:00 | 230.9 |
| 2011-11-20 00:00 | 218.1 |
| 2011-11-20 01:00 | 178.5 |
| 2011-11-20 02:00 | 175.3 |
| 2011-11-20 03:00 | 173.0 |
| 2011-11-20 04:00 | 165.0 |
| 2011-11-20 05:00 | 165.9 |
| 2011-11-20 06:00 | 166.4 |
| 2011-11-20 07:00 | 182.5 |
| 2011-11-20 08:00 | 193.1 |
| 2011-11-20 09:00 | 208.4 |
| 2011-11-20 10:00 | 221.4 |
| 2011-11-20 11:00 | 234.0 |
| 2011-11-20 12:00 | 252.6 |
| 2011-11-20 13:00 | 261.5 |
| 2011-11-20 14:00 | 266.2 |
| 2011-11-20 15:00 | 267.2 |
| 2011-11-20 16:00 | 268.3 |
| 2011-11-20 17:00 | 268.3 |
| 2011-11-20 18:00 | 268.3 |
| 2011-11-20 19:00 | 264.7 |
| 2011-11-20 20:00 | 257.6 |
| 2011-11-20 21:00 | 252.2 |
| 2011-11-20 22:00 | 236.4 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-20 23:00 | 207.7 |
| 2011-11-21 00:00 | 174.7 |
| 2011-11-21 01:00 | 161.7 |
| 2011-11-21 02:00 | 154.9 |
| 2011-11-21 03:00 | 150.2 |
| 2011-11-21 04:00 | 149.2 |
| 2011-11-21 05:00 | 148.5 |
| 2011-11-21 06:00 | 147.5 |
| 2011-11-21 07:00 | 156.9 |
| 2011-11-21 08:00 | 168.3 |
| 2011-11-21 09:00 | 178.1 |
| 2011-11-21 10:00 | 194.0 |
| 2011-11-21 11:00 | 213.7 |
| 2011-11-21 12:00 | 233.7 |
| 2011-11-21 13:00 | 214.7 |
| 2011-11-21 14:00 | 198.3 |
| 2011-11-21 15:00 | 178.1 |
| 2011-11-21 16:00 | 151.9 |
| 2011-11-21 17:00 | 121.3 |
| 2011-11-21 18:00 | 89.8  |
| 2011-11-21 19:00 | 67.7  |
| 2011-11-21 20:00 | 57.1  |
| 2011-11-21 21:00 | 46.8  |
| 2011-11-21 22:00 | 34.9  |
| 2011-11-21 23:00 | 22.7  |
| 2011-11-22 00:00 | 18.6  |
| 2011-11-22 01:00 | 15.6  |
| 2011-11-22 02:00 | 14.3  |
| 2011-11-22 03:00 | 9.9   |
| 2011-11-22 04:00 | 8.2   |
| 2011-11-22 05:00 | 5.6   |
| 2011-11-22 06:00 | 3.7   |
| 2011-11-22 07:00 | 6.7   |
| 2011-11-22 08:00 | 9.2   |
| 2011-11-22 09:00 | 11.0  |
| 2011-11-22 10:00 | 26.3  |
| 2011-11-22 11:00 | 38.9  |
| 2011-11-22 12:00 | 54.6  |
| 2011-11-22 13:00 | 60.9  |
| 2011-11-22 14:00 | 68.8  |
| 2011-11-22 15:00 | 82.1  |
| 2011-11-22 16:00 | 66.8  |
| 2011-11-22 17:00 | 58.1  |
| 2011-11-22 18:00 | 46.4  |
| 2011-11-22 19:00 | 37.6  |
| 2011-11-22 20:00 | 35.6  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-22 21:00 | 24.9  |
| 2011-11-22 22:00 | 15.3  |
| 2011-11-22 23:00 | 13.6  |
| 2011-11-23 00:00 | 12.5  |
| 2011-11-23 01:00 | 11.6  |
| 2011-11-23 02:00 | 11.6  |
| 2011-11-23 03:00 | 6.9   |
| 2011-11-23 04:00 | 8.7   |
| 2011-11-23 05:00 | 8.5   |
| 2011-11-23 06:00 | 8.4   |
| 2011-11-23 07:00 | 11.7  |
| 2011-11-23 08:00 | 19.0  |
| 2011-11-23 09:00 | 22.4  |
| 2011-11-23 10:00 | 25.4  |
| 2011-11-23 11:00 | 33.3  |
| 2011-11-23 12:00 | 35.3  |
| 2011-11-23 13:00 | 48.5  |
| 2011-11-23 14:00 | 58.2  |
| 2011-11-23 15:00 | 60.6  |
| 2011-11-23 16:00 | 61.9  |
| 2011-11-23 17:00 | 73.3  |
| 2011-11-23 18:00 | 103.0 |
| 2011-11-23 19:00 | 126.9 |
| 2011-11-23 20:00 | 161.1 |
| 2011-11-23 21:00 | 197.6 |
| 2011-11-23 22:00 | 223.0 |
| 2011-11-23 23:00 | 244.8 |
| 2011-11-24 00:00 | 257.9 |
| 2011-11-24 01:00 | 260.0 |
| 2011-11-24 02:00 | 260.0 |
| 2011-11-24 03:00 | 251.5 |
| 2011-11-24 04:00 | 256.0 |
| 2011-11-24 05:00 | 255.3 |
| 2011-11-24 06:00 | 252.3 |
| 2011-11-24 07:00 | 248.8 |
| 2011-11-24 08:00 | 245.8 |
| 2011-11-24 09:00 | 244.3 |
| 2011-11-24 10:00 | 231.0 |
| 2011-11-24 11:00 | 206.3 |
| 2011-11-24 12:00 | 188.4 |
| 2011-11-24 13:00 | 177.5 |
| 2011-11-24 14:00 | 165.5 |
| 2011-11-24 15:00 | 147.9 |
| 2011-11-24 16:00 | 124.1 |
| 2011-11-24 17:00 | 104.7 |
| 2011-11-24 18:00 | 80.7  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-24 19:00 | 63.5  |
| 2011-11-24 20:00 | 52.6  |
| 2011-11-24 21:00 | 47.5  |
| 2011-11-24 22:00 | 42.8  |
| 2011-11-24 23:00 | 38.6  |
| 2011-11-25 00:00 | 38.5  |
| 2011-11-25 01:00 | 42.6  |
| 2011-11-25 02:00 | 32.7  |
| 2011-11-25 03:00 | 31.2  |
| 2011-11-25 04:00 | 26.3  |
| 2011-11-25 05:00 | 24.2  |
| 2011-11-25 06:00 | 27.2  |
| 2011-11-25 07:00 | 28.0  |
| 2011-11-25 08:00 | 24.1  |
| 2011-11-25 09:00 | 24.2  |
| 2011-11-25 10:00 | 40.6  |
| 2011-11-25 11:00 | 63.1  |
| 2011-11-25 12:00 | 95.0  |
| 2011-11-25 13:00 | 104.4 |
| 2011-11-25 14:00 | 129.4 |
| 2011-11-25 15:00 | 140.8 |
| 2011-11-25 16:00 | 154.4 |
| 2011-11-25 17:00 | 161.5 |
| 2011-11-25 18:00 | 182.5 |
| 2011-11-25 19:00 | 201.2 |
| 2011-11-25 20:00 | 209.9 |
| 2011-11-25 21:00 | 220.8 |
| 2011-11-25 22:00 | 211.6 |
| 2011-11-25 23:00 | 208.3 |
| 2011-11-26 00:00 | 202.3 |
| 2011-11-26 01:00 | 185.9 |
| 2011-11-26 02:00 | 141.4 |
| 2011-11-26 03:00 | 117.1 |
| 2011-11-26 04:00 | 106.7 |
| 2011-11-26 05:00 | 98.1  |
| 2011-11-26 06:00 | 87.3  |
| 2011-11-26 07:00 | 83.3  |
| 2011-11-26 08:00 | 80.7  |
| 2011-11-26 09:00 | 81.7  |
| 2011-11-26 10:00 | 78.6  |
| 2011-11-26 11:00 | 82.7  |
| 2011-11-26 12:00 | 90.3  |
| 2011-11-26 13:00 | 80.1  |
| 2011-11-26 14:00 | 79.2  |
| 2011-11-26 15:00 | 76.2  |
| 2011-11-26 16:00 | 65.2  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-26 17:00 | 55.7  |
| 2011-11-26 18:00 | 45.3  |
| 2011-11-26 19:00 | 39.0  |
| 2011-11-26 20:00 | 39.8  |
| 2011-11-26 21:00 | 28.7  |
| 2011-11-26 22:00 | 27.9  |
| 2011-11-26 23:00 | 23.7  |
| 2011-11-27 00:00 | 19.1  |
| 2011-11-27 01:00 | 27.3  |
| 2011-11-27 02:00 | 24.8  |
| 2011-11-27 03:00 | 17.8  |
| 2011-11-27 04:00 | 15.4  |
| 2011-11-27 05:00 | 17.8  |
| 2011-11-27 06:00 | 17.4  |
| 2011-11-27 07:00 | 16.3  |
| 2011-11-27 08:00 | 15.7  |
| 2011-11-27 09:00 | 17.7  |
| 2011-11-27 10:00 | 20.1  |
| 2011-11-27 11:00 | 30.9  |
| 2011-11-27 12:00 | 33.3  |
| 2011-11-27 13:00 | 35.8  |
| 2011-11-27 14:00 | 35.8  |
| 2011-11-27 15:00 | 37.7  |
| 2011-11-27 16:00 | 36.3  |
| 2011-11-27 17:00 | 34.5  |
| 2011-11-27 18:00 | 33.5  |
| 2011-11-27 19:00 | 44.3  |
| 2011-11-27 20:00 | 49.6  |
| 2011-11-27 21:00 | 56.0  |
| 2011-11-27 22:00 | 66.5  |
| 2011-11-27 23:00 | 69.5  |
| 2011-11-28 00:00 | 95.3  |
| 2011-11-28 01:00 | 85.6  |
| 2011-11-28 02:00 | 93.0  |
| 2011-11-28 03:00 | 99.9  |
| 2011-11-28 04:00 | 110.0 |
| 2011-11-28 05:00 | 122.8 |
| 2011-11-28 06:00 | 141.7 |
| 2011-11-28 07:00 | 171.0 |
| 2011-11-28 08:00 | 181.0 |
| 2011-11-28 09:00 | 213.5 |
| 2011-11-28 10:00 | 215.6 |
| 2011-11-28 11:00 | 218.0 |
| 2011-11-28 12:00 | 222.8 |
| 2011-11-28 13:00 | 222.8 |
| 2011-11-28 14:00 | 223.6 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-28 15:00 | 229.3 |
| 2011-11-28 16:00 | 219.3 |
| 2011-11-28 17:00 | 216.1 |
| 2011-11-28 18:00 | 198.5 |
| 2011-11-28 19:00 | 192.8 |
| 2011-11-28 20:00 | 184.2 |
| 2011-11-28 21:00 | 178.9 |
| 2011-11-28 22:00 | 167.3 |
| 2011-11-28 23:00 | 131.9 |
| 2011-11-29 00:00 | 115.1 |
| 2011-11-29 01:00 | 87.2  |
| 2011-11-29 02:00 | 67.9  |
| 2011-11-29 03:00 | 56.8  |
| 2011-11-29 04:00 | 40.6  |
| 2011-11-29 05:00 | 28.9  |
| 2011-11-29 06:00 | 15.5  |
| 2011-11-29 07:00 | 5.5   |
| 2011-11-29 08:00 | 3.0   |
| 2011-11-29 09:00 | 1.3   |
| 2011-11-29 10:00 | 0.3   |
| 2011-11-29 11:00 | 2.8   |
| 2011-11-29 12:00 | 10.7  |
| 2011-11-29 13:00 | 17.1  |
| 2011-11-29 14:00 | 18.5  |
| 2011-11-29 15:00 | 23.3  |
| 2011-11-29 16:00 | 18.5  |
| 2011-11-29 17:00 | 11.8  |
| 2011-11-29 18:00 | 9.8   |
| 2011-11-29 19:00 | 9.5   |
| 2011-11-29 20:00 | 8.9   |
| 2011-11-29 21:00 | 18.7  |
| 2011-11-29 22:00 | 16.6  |
| 2011-11-29 23:00 | 18.8  |
| 2011-11-30 00:00 | 19.8  |
| 2011-11-30 01:00 | 60.3  |
| 2011-11-30 02:00 | 45.3  |
| 2011-11-30 03:00 | 43.6  |
| 2011-11-30 04:00 | 47.7  |
| 2011-11-30 05:00 | 59.3  |
| 2011-11-30 06:00 | 64.1  |
| 2011-11-30 07:00 | 78.6  |
| 2011-11-30 08:00 | 90.3  |
| 2011-11-30 09:00 | 101.8 |
| 2011-11-30 10:00 | 139.1 |
| 2011-11-30 11:00 | 195.3 |
| 2011-11-30 12:00 | 222.6 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-11-30 13:00 | 235.7 |
| 2011-11-30 14:00 | 246.9 |
| 2011-11-30 15:00 | 259.0 |
| 2011-11-30 16:00 | 259.9 |
| 2011-11-30 17:00 | 250.3 |
| 2011-11-30 18:00 | 247.1 |
| 2011-11-30 19:00 | 244.9 |
| 2011-11-30 20:00 | 236.6 |
| 2011-11-30 21:00 | 225.1 |
| 2011-11-30 22:00 | 224.8 |
| 2011-11-30 23:00 | 223.9 |
| 2011-12-01 00:00 | 220.1 |
| 2011-12-01 01:00 | 189.4 |
| 2011-12-01 02:00 | 165.7 |
| 2011-12-01 03:00 | 125.7 |
| 2011-12-01 04:00 | 109.7 |
| 2011-12-01 05:00 | 83.7  |
| 2011-12-01 06:00 | 59.4  |
| 2011-12-01 07:00 | 52.8  |
| 2011-12-01 08:00 | 37.7  |
| 2011-12-01 09:00 | 33.3  |
| 2011-12-01 10:00 | 44.0  |
| 2011-12-01 11:00 | 69.9  |
| 2011-12-01 12:00 | 93.3  |
| 2011-12-01 13:00 | 83.2  |
| 2011-12-01 14:00 | 81.2  |
| 2011-12-01 15:00 | 81.5  |
| 2011-12-01 16:00 | 80.0  |
| 2011-12-01 17:00 | 80.2  |
| 2011-12-01 18:00 | 74.2  |
| 2011-12-01 19:00 | 64.7  |
| 2011-12-01 20:00 | 58.4  |
| 2011-12-01 21:00 | 57.5  |
| 2011-12-01 22:00 | 48.3  |
| 2011-12-01 23:00 | 37.6  |
| 2011-12-02 00:00 | 30.3  |
| 2011-12-02 01:00 | 103.2 |
| 2011-12-02 02:00 | 98.5  |
| 2011-12-02 03:00 | 77.8  |
| 2011-12-02 04:00 | 74.4  |
| 2011-12-02 05:00 | 67.7  |
| 2011-12-02 06:00 | 65.6  |
| 2011-12-02 07:00 | 63.5  |
| 2011-12-02 08:00 | 59.9  |
| 2011-12-02 09:00 | 53.9  |
| 2011-12-02 10:00 | 50.5  |

## Day ahead wind forecast

|                  |      |
|------------------|------|
| 2011-12-02 11:00 | 54.2 |
| 2011-12-02 12:00 | 53.3 |
| 2011-12-02 13:00 | 46.8 |
| 2011-12-02 14:00 | 43.1 |
| 2011-12-02 15:00 | 30.9 |
| 2011-12-02 16:00 | 18.8 |
| 2011-12-02 17:00 | 15.7 |
| 2011-12-02 18:00 | 7.2  |
| 2011-12-02 19:00 | 6.8  |
| 2011-12-02 20:00 | 6.8  |
| 2011-12-02 21:00 | 4.2  |
| 2011-12-02 22:00 | 4.2  |
| 2011-12-02 23:00 | 3.4  |
| 2011-12-03 00:00 | 4.0  |
| 2011-12-03 01:00 | 5.8  |
| 2011-12-03 02:00 | 9.2  |
| 2011-12-03 03:00 | 11.5 |
| 2011-12-03 04:00 | 14.5 |
| 2011-12-03 05:00 | 22.0 |
| 2011-12-03 06:00 | 25.2 |
| 2011-12-03 07:00 | 28.7 |
| 2011-12-03 08:00 | 39.4 |
| 2011-12-03 09:00 | 42.6 |
| 2011-12-03 10:00 | 43.6 |
| 2011-12-03 11:00 | 49.9 |
| 2011-12-03 12:00 | 48.2 |
| 2011-12-03 13:00 | 46.2 |
| 2011-12-03 14:00 | 41.4 |
| 2011-12-03 15:00 | 37.1 |
| 2011-12-03 16:00 | 26.6 |
| 2011-12-03 17:00 | 19.0 |
| 2011-12-03 18:00 | 16.9 |
| 2011-12-03 19:00 | 8.7  |
| 2011-12-03 20:00 | 6.6  |
| 2011-12-03 21:00 | 5.2  |
| 2011-12-03 22:00 | 4.6  |
| 2011-12-03 23:00 | 4.4  |
| 2011-12-04 00:00 | 3.5  |
| 2011-12-04 01:00 | 2.3  |
| 2011-12-04 02:00 | 1.6  |
| 2011-12-04 03:00 | 2.5  |
| 2011-12-04 04:00 | 3.0  |
| 2011-12-04 05:00 | 4.0  |
| 2011-12-04 06:00 | 5.5  |
| 2011-12-04 07:00 | 6.3  |
| 2011-12-04 08:00 | 8.9  |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-04 09:00 | 17.9  |
| 2011-12-04 10:00 | 26.9  |
| 2011-12-04 11:00 | 42.1  |
| 2011-12-04 12:00 | 73.1  |
| 2011-12-04 13:00 | 82.4  |
| 2011-12-04 14:00 | 87.0  |
| 2011-12-04 15:00 | 95.3  |
| 2011-12-04 16:00 | 84.7  |
| 2011-12-04 17:00 | 77.5  |
| 2011-12-04 18:00 | 59.3  |
| 2011-12-04 19:00 | 77.5  |
| 2011-12-04 20:00 | 82.5  |
| 2011-12-04 21:00 | 95.3  |
| 2011-12-04 22:00 | 99.3  |
| 2011-12-04 23:00 | 107.1 |
| 2011-12-05 00:00 | 113.5 |
| 2011-12-05 01:00 | 53.6  |
| 2011-12-05 02:00 | 62.6  |
| 2011-12-05 03:00 | 73.9  |
| 2011-12-05 04:00 | 76.1  |
| 2011-12-05 05:00 | 84.0  |
| 2011-12-05 06:00 | 89.2  |
| 2011-12-05 07:00 | 95.0  |
| 2011-12-05 08:00 | 99.3  |
| 2011-12-05 09:00 | 112.4 |
| 2011-12-05 10:00 | 115.2 |
| 2011-12-05 11:00 | 117.8 |
| 2011-12-05 12:00 | 119.9 |
| 2011-12-05 13:00 | 115.0 |
| 2011-12-05 14:00 | 107.4 |
| 2011-12-05 15:00 | 106.3 |
| 2011-12-05 16:00 | 89.4  |
| 2011-12-05 17:00 | 69.6  |
| 2011-12-05 18:00 | 60.1  |
| 2011-12-05 19:00 | 69.0  |
| 2011-12-05 20:00 | 82.6  |
| 2011-12-05 21:00 | 100.0 |
| 2011-12-05 22:00 | 104.4 |
| 2011-12-05 23:00 | 113.7 |
| 2011-12-06 00:00 | 122.1 |
| 2011-12-06 01:00 | 22.6  |
| 2011-12-06 02:00 | 26.7  |
| 2011-12-06 03:00 | 26.7  |
| 2011-12-06 04:00 | 27.9  |
| 2011-12-06 05:00 | 28.4  |
| 2011-12-06 06:00 | 35.8  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-06 07:00 | 43.6  |
| 2011-12-06 08:00 | 48.3  |
| 2011-12-06 09:00 | 63.2  |
| 2011-12-06 10:00 | 69.5  |
| 2011-12-06 11:00 | 76.8  |
| 2011-12-06 12:00 | 84.1  |
| 2011-12-06 13:00 | 85.3  |
| 2011-12-06 14:00 | 85.9  |
| 2011-12-06 15:00 | 83.1  |
| 2011-12-06 16:00 | 68.0  |
| 2011-12-06 17:00 | 44.9  |
| 2011-12-06 18:00 | 31.0  |
| 2011-12-06 19:00 | 36.0  |
| 2011-12-06 20:00 | 58.0  |
| 2011-12-06 21:00 | 74.5  |
| 2011-12-06 22:00 | 77.7  |
| 2011-12-06 23:00 | 92.9  |
| 2011-12-07 00:00 | 102.5 |
| 2011-12-07 01:00 | 45.7  |
| 2011-12-07 02:00 | 57.2  |
| 2011-12-07 03:00 | 60.4  |
| 2011-12-07 04:00 | 61.4  |
| 2011-12-07 05:00 | 64.6  |
| 2011-12-07 06:00 | 64.0  |
| 2011-12-07 07:00 | 64.4  |
| 2011-12-07 08:00 | 56.9  |
| 2011-12-07 09:00 | 65.6  |
| 2011-12-07 10:00 | 60.1  |
| 2011-12-07 11:00 | 54.0  |
| 2011-12-07 12:00 | 52.9  |
| 2011-12-07 13:00 | 69.0  |
| 2011-12-07 14:00 | 67.4  |
| 2011-12-07 15:00 | 77.9  |
| 2011-12-07 16:00 | 77.5  |
| 2011-12-07 17:00 | 80.3  |
| 2011-12-07 18:00 | 85.7  |
| 2011-12-07 19:00 | 98.2  |
| 2011-12-07 20:00 | 120.0 |
| 2011-12-07 21:00 | 145.1 |
| 2011-12-07 22:00 | 114.3 |
| 2011-12-07 23:00 | 85.9  |
| 2011-12-08 00:00 | 66.4  |
| 2011-12-08 01:00 | 29.0  |
| 2011-12-08 02:00 | 41.5  |
| 2011-12-08 03:00 | 59.3  |
| 2011-12-08 04:00 | 78.4  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-08 05:00 | 90.7  |
| 2011-12-08 06:00 | 114.0 |
| 2011-12-08 07:00 | 153.0 |
| 2011-12-08 08:00 | 191.0 |
| 2011-12-08 09:00 | 221.9 |
| 2011-12-08 10:00 | 257.0 |
| 2011-12-08 11:00 | 264.5 |
| 2011-12-08 12:00 | 264.5 |
| 2011-12-08 13:00 | 264.5 |
| 2011-12-08 14:00 | 264.5 |
| 2011-12-08 15:00 | 264.5 |
| 2011-12-08 16:00 | 264.5 |
| 2011-12-08 17:00 | 264.5 |
| 2011-12-08 18:00 | 261.1 |
| 2011-12-08 19:00 | 261.1 |
| 2011-12-08 20:00 | 261.1 |
| 2011-12-08 21:00 | 260.9 |
| 2011-12-08 22:00 | 260.9 |
| 2011-12-08 23:00 | 256.3 |
| 2011-12-09 00:00 | 252.2 |
| 2011-12-09 01:00 | 233.5 |
| 2011-12-09 02:00 | 208.5 |
| 2011-12-09 03:00 | 169.0 |
| 2011-12-09 04:00 | 154.4 |
| 2011-12-09 05:00 | 124.8 |
| 2011-12-09 06:00 | 102.7 |
| 2011-12-09 07:00 | 109.8 |
| 2011-12-09 08:00 | 113.2 |
| 2011-12-09 09:00 | 115.7 |
| 2011-12-09 10:00 | 122.9 |
| 2011-12-09 11:00 | 132.6 |
| 2011-12-09 12:00 | 146.3 |
| 2011-12-09 13:00 | 143.9 |
| 2011-12-09 14:00 | 142.3 |
| 2011-12-09 15:00 | 138.8 |
| 2011-12-09 16:00 | 118.2 |
| 2011-12-09 17:00 | 101.8 |
| 2011-12-09 18:00 | 75.3  |
| 2011-12-09 19:00 | 94.9  |
| 2011-12-09 20:00 | 116.8 |
| 2011-12-09 21:00 | 140.4 |
| 2011-12-09 22:00 | 149.0 |
| 2011-12-09 23:00 | 151.0 |
| 2011-12-10 00:00 | 165.9 |
| 2011-12-10 01:00 | 121.2 |
| 2011-12-10 02:00 | 140.1 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-10 03:00 | 158.6 |
| 2011-12-10 04:00 | 168.8 |
| 2011-12-10 05:00 | 171.0 |
| 2011-12-10 06:00 | 166.2 |
| 2011-12-10 07:00 | 149.5 |
| 2011-12-10 08:00 | 126.0 |
| 2011-12-10 09:00 | 105.3 |
| 2011-12-10 10:00 | 96.5  |
| 2011-12-10 11:00 | 95.7  |
| 2011-12-10 12:00 | 88.5  |
| 2011-12-10 13:00 | 76.6  |
| 2011-12-10 14:00 | 79.2  |
| 2011-12-10 15:00 | 60.8  |
| 2011-12-10 16:00 | 60.8  |
| 2011-12-10 17:00 | 56.2  |
| 2011-12-10 18:00 | 58.3  |
| 2011-12-10 19:00 | 84.1  |
| 2011-12-10 20:00 | 109.6 |
| 2011-12-10 21:00 | 140.0 |
| 2011-12-10 22:00 | 153.8 |
| 2011-12-10 23:00 | 166.1 |
| 2011-12-11 00:00 | 167.1 |
| 2011-12-11 01:00 | 186.3 |
| 2011-12-11 02:00 | 198.8 |
| 2011-12-11 03:00 | 204.5 |
| 2011-12-11 04:00 | 196.6 |
| 2011-12-11 05:00 | 188.6 |
| 2011-12-11 06:00 | 187.8 |
| 2011-12-11 07:00 | 181.7 |
| 2011-12-11 08:00 | 165.7 |
| 2011-12-11 09:00 | 161.7 |
| 2011-12-11 10:00 | 150.9 |
| 2011-12-11 11:00 | 134.1 |
| 2011-12-11 12:00 | 130.0 |
| 2011-12-11 13:00 | 124.7 |
| 2011-12-11 14:00 | 108.1 |
| 2011-12-11 15:00 | 100.6 |
| 2011-12-11 16:00 | 93.5  |
| 2011-12-11 17:00 | 89.2  |
| 2011-12-11 18:00 | 74.9  |
| 2011-12-11 19:00 | 78.1  |
| 2011-12-11 20:00 | 72.1  |
| 2011-12-11 21:00 | 69.4  |
| 2011-12-11 22:00 | 65.8  |
| 2011-12-11 23:00 | 65.8  |
| 2011-12-12 00:00 | 60.7  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-12 01:00 | 74.3  |
| 2011-12-12 02:00 | 80.6  |
| 2011-12-12 03:00 | 86.2  |
| 2011-12-12 04:00 | 89.5  |
| 2011-12-12 05:00 | 103.8 |
| 2011-12-12 06:00 | 113.6 |
| 2011-12-12 07:00 | 127.3 |
| 2011-12-12 08:00 | 135.4 |
| 2011-12-12 09:00 | 155.0 |
| 2011-12-12 10:00 | 171.4 |
| 2011-12-12 11:00 | 193.3 |
| 2011-12-12 12:00 | 217.5 |
| 2011-12-12 13:00 | 195.5 |
| 2011-12-12 14:00 | 186.7 |
| 2011-12-12 15:00 | 169.4 |
| 2011-12-12 16:00 | 125.5 |
| 2011-12-12 17:00 | 97.5  |
| 2011-12-12 18:00 | 61.9  |
| 2011-12-12 19:00 | 53.0  |
| 2011-12-12 20:00 | 43.7  |
| 2011-12-12 21:00 | 36.9  |
| 2011-12-12 22:00 | 33.7  |
| 2011-12-12 23:00 | 23.2  |
| 2011-12-13 00:00 | 20.9  |
| 2011-12-13 01:00 | 10.2  |
| 2011-12-13 02:00 | 10.2  |
| 2011-12-13 03:00 | 8.8   |
| 2011-12-13 04:00 | 7.5   |
| 2011-12-13 05:00 | 5.0   |
| 2011-12-13 06:00 | 2.5   |
| 2011-12-13 07:00 | 1.6   |
| 2011-12-13 08:00 | 1.3   |
| 2011-12-13 09:00 | 1.3   |
| 2011-12-13 10:00 | 2.0   |
| 2011-12-13 11:00 | 3.2   |
| 2011-12-13 12:00 | 12.0  |
| 2011-12-13 13:00 | 5.5   |
| 2011-12-13 14:00 | 4.7   |
| 2011-12-13 15:00 | 7.4   |
| 2011-12-13 16:00 | 9.9   |
| 2011-12-13 17:00 | 22.1  |
| 2011-12-13 18:00 | 32.6  |
| 2011-12-13 19:00 | 56.0  |
| 2011-12-13 20:00 | 83.8  |
| 2011-12-13 21:00 | 107.4 |
| 2011-12-13 22:00 | 121.7 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-13 23:00 | 143.6 |
| 2011-12-14 00:00 | 158.1 |
| 2011-12-14 01:00 | 93.0  |
| 2011-12-14 02:00 | 105.8 |
| 2011-12-14 03:00 | 117.1 |
| 2011-12-14 04:00 | 126.5 |
| 2011-12-14 05:00 | 138.4 |
| 2011-12-14 06:00 | 161.5 |
| 2011-12-14 07:00 | 157.9 |
| 2011-12-14 08:00 | 148.1 |
| 2011-12-14 09:00 | 144.2 |
| 2011-12-14 10:00 | 152.7 |
| 2011-12-14 11:00 | 156.3 |
| 2011-12-14 12:00 | 163.9 |
| 2011-12-14 13:00 | 148.3 |
| 2011-12-14 14:00 | 145.8 |
| 2011-12-14 15:00 | 137.1 |
| 2011-12-14 16:00 | 127.0 |
| 2011-12-14 17:00 | 114.0 |
| 2011-12-14 18:00 | 96.5  |
| 2011-12-14 19:00 | 74.5  |
| 2011-12-14 20:00 | 59.9  |
| 2011-12-14 21:00 | 57.3  |
| 2011-12-14 22:00 | 42.7  |
| 2011-12-14 23:00 | 23.9  |
| 2011-12-15 00:00 | 17.3  |
| 2011-12-15 01:00 | 6.8   |
| 2011-12-15 02:00 | 8.2   |
| 2011-12-15 03:00 | 9.0   |
| 2011-12-15 04:00 | 9.0   |
| 2011-12-15 05:00 | 6.2   |
| 2011-12-15 06:00 | 6.2   |
| 2011-12-15 07:00 | 7.9   |
| 2011-12-15 08:00 | 10.9  |
| 2011-12-15 09:00 | 12.5  |
| 2011-12-15 10:00 | 29.5  |
| 2011-12-15 11:00 | 50.4  |
| 2011-12-15 12:00 | 84.8  |
| 2011-12-15 13:00 | 110.3 |
| 2011-12-15 14:00 | 135.5 |
| 2011-12-15 15:00 | 169.4 |
| 2011-12-15 16:00 | 183.4 |
| 2011-12-15 17:00 | 189.6 |
| 2011-12-15 18:00 | 195.8 |
| 2011-12-15 19:00 | 221.8 |
| 2011-12-15 20:00 | 239.1 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-15 21:00 | 253.9 |
| 2011-12-15 22:00 | 263.6 |
| 2011-12-15 23:00 | 264.5 |
| 2011-12-16 00:00 | 264.5 |
| 2011-12-16 01:00 | 264.5 |
| 2011-12-16 02:00 | 264.5 |
| 2011-12-16 03:00 | 264.5 |
| 2011-12-16 04:00 | 261.4 |
| 2011-12-16 05:00 | 254.9 |
| 2011-12-16 06:00 | 244.8 |
| 2011-12-16 07:00 | 234.1 |
| 2011-12-16 08:00 | 207.1 |
| 2011-12-16 09:00 | 179.9 |
| 2011-12-16 10:00 | 176.3 |
| 2011-12-16 11:00 | 153.1 |
| 2011-12-16 12:00 | 131.6 |
| 2011-12-16 13:00 | 155.5 |
| 2011-12-16 14:00 | 195.6 |
| 2011-12-16 15:00 | 220.1 |
| 2011-12-16 16:00 | 249.4 |
| 2011-12-16 17:00 | 252.2 |
| 2011-12-16 18:00 | 254.2 |
| 2011-12-16 19:00 | 252.6 |
| 2011-12-16 20:00 | 252.2 |
| 2011-12-16 21:00 | 250.7 |
| 2011-12-16 22:00 | 244.7 |
| 2011-12-16 23:00 | 239.1 |
| 2011-12-17 00:00 | 239.1 |
| 2011-12-17 01:00 | 176.6 |
| 2011-12-17 02:00 | 167.1 |
| 2011-12-17 03:00 | 153.5 |
| 2011-12-17 04:00 | 147.2 |
| 2011-12-17 05:00 | 136.3 |
| 2011-12-17 06:00 | 110.7 |
| 2011-12-17 07:00 | 108.8 |
| 2011-12-17 08:00 | 103.6 |
| 2011-12-17 09:00 | 94.3  |
| 2011-12-17 10:00 | 96.0  |
| 2011-12-17 11:00 | 95.5  |
| 2011-12-17 12:00 | 99.5  |
| 2011-12-17 13:00 | 99.8  |
| 2011-12-17 14:00 | 92.1  |
| 2011-12-17 15:00 | 90.0  |
| 2011-12-17 16:00 | 89.9  |
| 2011-12-17 17:00 | 85.7  |
| 2011-12-17 18:00 | 83.5  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-17 19:00 | 87.4  |
| 2011-12-17 20:00 | 87.3  |
| 2011-12-17 21:00 | 89.7  |
| 2011-12-17 22:00 | 85.5  |
| 2011-12-17 23:00 | 84.2  |
| 2011-12-18 00:00 | 76.9  |
| 2011-12-18 01:00 | 75.4  |
| 2011-12-18 02:00 | 74.4  |
| 2011-12-18 03:00 | 76.6  |
| 2011-12-18 04:00 | 90.2  |
| 2011-12-18 05:00 | 102.7 |
| 2011-12-18 06:00 | 113.5 |
| 2011-12-18 07:00 | 121.2 |
| 2011-12-18 08:00 | 132.8 |
| 2011-12-18 09:00 | 138.6 |
| 2011-12-18 10:00 | 130.9 |
| 2011-12-18 11:00 | 125.7 |
| 2011-12-18 12:00 | 123.9 |
| 2011-12-18 13:00 | 122.9 |
| 2011-12-18 14:00 | 120.0 |
| 2011-12-18 15:00 | 113.0 |
| 2011-12-18 16:00 | 115.1 |
| 2011-12-18 17:00 | 115.1 |
| 2011-12-18 18:00 | 118.8 |
| 2011-12-18 19:00 | 119.9 |
| 2011-12-18 20:00 | 123.4 |
| 2011-12-18 21:00 | 120.4 |
| 2011-12-18 22:00 | 111.1 |
| 2011-12-18 23:00 | 104.7 |
| 2011-12-19 00:00 | 97.1  |
| 2011-12-19 01:00 | 98.2  |
| 2011-12-19 02:00 | 88.9  |
| 2011-12-19 03:00 | 86.2  |
| 2011-12-19 04:00 | 78.5  |
| 2011-12-19 05:00 | 68.6  |
| 2011-12-19 06:00 | 63.4  |
| 2011-12-19 07:00 | 55.3  |
| 2011-12-19 08:00 | 59.5  |
| 2011-12-19 09:00 | 61.2  |
| 2011-12-19 10:00 | 54.9  |
| 2011-12-19 11:00 | 48.3  |
| 2011-12-19 12:00 | 42.0  |
| 2011-12-19 13:00 | 41.1  |
| 2011-12-19 14:00 | 37.9  |
| 2011-12-19 15:00 | 53.9  |
| 2011-12-19 16:00 | 59.5  |



## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-19 17:00 | 53.6  |
| 2011-12-19 18:00 | 61.3  |
| 2011-12-19 19:00 | 83.3  |
| 2011-12-19 20:00 | 115.2 |
| 2011-12-19 21:00 | 149.9 |
| 2011-12-19 22:00 | 187.9 |
| 2011-12-19 23:00 | 210.4 |
| 2011-12-20 00:00 | 240.0 |
| 2011-12-20 01:00 | 207.9 |
| 2011-12-20 02:00 | 205.3 |
| 2011-12-20 03:00 | 194.9 |
| 2011-12-20 04:00 | 187.1 |
| 2011-12-20 05:00 | 176.2 |
| 2011-12-20 06:00 | 167.1 |
| 2011-12-20 07:00 | 169.8 |
| 2011-12-20 08:00 | 180.3 |
| 2011-12-20 09:00 | 188.6 |
| 2011-12-20 10:00 | 206.7 |
| 2011-12-20 11:00 | 226.8 |
| 2011-12-20 12:00 | 234.3 |
| 2011-12-20 13:00 | 242.1 |
| 2011-12-20 14:00 | 250.7 |
| 2011-12-20 15:00 | 252.2 |
| 2011-12-20 16:00 | 252.2 |
| 2011-12-20 17:00 | 252.2 |
| 2011-12-20 18:00 | 246.2 |
| 2011-12-20 19:00 | 241.7 |
| 2011-12-20 20:00 | 238.9 |
| 2011-12-20 21:00 | 229.7 |
| 2011-12-20 22:00 | 212.1 |
| 2011-12-20 23:00 | 198.8 |
| 2011-12-21 00:00 | 184.0 |
| 2011-12-21 01:00 | 128.1 |
| 2011-12-21 02:00 | 98.9  |
| 2011-12-21 03:00 | 75.3  |
| 2011-12-21 04:00 | 70.6  |
| 2011-12-21 05:00 | 55.1  |
| 2011-12-21 06:00 | 47.8  |
| 2011-12-21 07:00 | 51.8  |
| 2011-12-21 08:00 | 50.5  |
| 2011-12-21 09:00 | 46.0  |
| 2011-12-21 10:00 | 72.5  |
| 2011-12-21 11:00 | 94.5  |
| 2011-12-21 12:00 | 122.6 |
| 2011-12-21 13:00 | 128.0 |
| 2011-12-21 14:00 | 130.5 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-21 15:00 | 135.4 |
| 2011-12-21 16:00 | 137.0 |
| 2011-12-21 17:00 | 143.1 |
| 2011-12-21 18:00 | 138.9 |
| 2011-12-21 19:00 | 153.7 |
| 2011-12-21 20:00 | 168.7 |
| 2011-12-21 21:00 | 179.6 |
| 2011-12-21 22:00 | 173.2 |
| 2011-12-21 23:00 | 151.0 |
| 2011-12-22 00:00 | 142.8 |
| 2011-12-22 01:00 | 228.7 |
| 2011-12-22 02:00 | 239.5 |
| 2011-12-22 03:00 | 246.9 |
| 2011-12-22 04:00 | 235.1 |
| 2011-12-22 05:00 | 203.3 |
| 2011-12-22 06:00 | 174.1 |
| 2011-12-22 07:00 | 111.4 |
| 2011-12-22 08:00 | 81.0  |
| 2011-12-22 09:00 | 56.8  |
| 2011-12-22 10:00 | 69.5  |
| 2011-12-22 11:00 | 85.0  |
| 2011-12-22 12:00 | 120.1 |
| 2011-12-22 13:00 | 127.3 |
| 2011-12-22 14:00 | 138.9 |
| 2011-12-22 15:00 | 156.9 |
| 2011-12-22 16:00 | 145.2 |
| 2011-12-22 17:00 | 128.0 |
| 2011-12-22 18:00 | 119.6 |
| 2011-12-22 19:00 | 105.0 |
| 2011-12-22 20:00 | 90.8  |
| 2011-12-22 21:00 | 77.4  |
| 2011-12-22 22:00 | 56.9  |
| 2011-12-22 23:00 | 49.0  |
| 2011-12-23 00:00 | 41.5  |
| 2011-12-23 01:00 | 15.6  |
| 2011-12-23 02:00 | 16.4  |
| 2011-12-23 03:00 | 17.6  |
| 2011-12-23 04:00 | 14.0  |
| 2011-12-23 05:00 | 7.7   |
| 2011-12-23 06:00 | 5.4   |
| 2011-12-23 07:00 | 4.9   |
| 2011-12-23 08:00 | 6.9   |
| 2011-12-23 09:00 | 10.2  |
| 2011-12-23 10:00 | 16.5  |
| 2011-12-23 11:00 | 29.9  |
| 2011-12-23 12:00 | 56.1  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-23 13:00 | 61.7  |
| 2011-12-23 14:00 | 71.5  |
| 2011-12-23 15:00 | 80.2  |
| 2011-12-23 16:00 | 101.7 |
| 2011-12-23 17:00 | 129.1 |
| 2011-12-23 18:00 | 159.4 |
| 2011-12-23 19:00 | 150.6 |
| 2011-12-23 20:00 | 140.2 |
| 2011-12-23 21:00 | 129.5 |
| 2011-12-23 22:00 | 126.9 |
| 2011-12-23 23:00 | 121.1 |
| 2011-12-24 00:00 | 115.8 |
| 2011-12-24 01:00 | 119.6 |
| 2011-12-24 02:00 | 123.5 |
| 2011-12-24 03:00 | 124.8 |
| 2011-12-24 04:00 | 122.2 |
| 2011-12-24 05:00 | 121.1 |
| 2011-12-24 06:00 | 114.0 |
| 2011-12-24 07:00 | 112.5 |
| 2011-12-24 08:00 | 112.7 |
| 2011-12-24 09:00 | 118.2 |
| 2011-12-24 10:00 | 124.9 |
| 2011-12-24 11:00 | 133.7 |
| 2011-12-24 12:00 | 152.1 |
| 2011-12-24 13:00 | 150.3 |
| 2011-12-24 14:00 | 150.2 |
| 2011-12-24 15:00 | 146.9 |
| 2011-12-24 16:00 | 135.6 |
| 2011-12-24 17:00 | 117.3 |
| 2011-12-24 18:00 | 108.6 |
| 2011-12-24 19:00 | 108.6 |
| 2011-12-24 20:00 | 111.1 |
| 2011-12-24 21:00 | 108.1 |
| 2011-12-24 22:00 | 104.0 |
| 2011-12-24 23:00 | 96.0  |
| 2011-12-25 00:00 | 81.3  |
| 2011-12-25 01:00 | 94.6  |
| 2011-12-25 02:00 | 83.6  |
| 2011-12-25 03:00 | 81.8  |
| 2011-12-25 04:00 | 70.0  |
| 2011-12-25 05:00 | 61.1  |
| 2011-12-25 06:00 | 50.8  |
| 2011-12-25 07:00 | 45.3  |
| 2011-12-25 08:00 | 33.8  |
| 2011-12-25 09:00 | 26.0  |
| 2011-12-25 10:00 | 9.8   |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-25 11:00 | 9.1   |
| 2011-12-25 12:00 | 3.9   |
| 2011-12-25 13:00 | 5.5   |
| 2011-12-25 14:00 | 9.5   |
| 2011-12-25 15:00 | 18.4  |
| 2011-12-25 16:00 | 18.5  |
| 2011-12-25 17:00 | 29.6  |
| 2011-12-25 18:00 | 36.6  |
| 2011-12-25 19:00 | 47.3  |
| 2011-12-25 20:00 | 61.1  |
| 2011-12-25 21:00 | 71.0  |
| 2011-12-25 22:00 | 77.3  |
| 2011-12-25 23:00 | 80.4  |
| 2011-12-26 00:00 | 83.4  |
| 2011-12-26 01:00 | 105.4 |
| 2011-12-26 02:00 | 114.6 |
| 2011-12-26 03:00 | 108.3 |
| 2011-12-26 04:00 | 99.8  |
| 2011-12-26 05:00 | 83.4  |
| 2011-12-26 06:00 | 83.5  |
| 2011-12-26 07:00 | 79.2  |
| 2011-12-26 08:00 | 83.7  |
| 2011-12-26 09:00 | 72.9  |
| 2011-12-26 10:00 | 68.5  |
| 2011-12-26 11:00 | 67.2  |
| 2011-12-26 12:00 | 44.0  |
| 2011-12-26 13:00 | 32.9  |
| 2011-12-26 14:00 | 33.9  |
| 2011-12-26 15:00 | 34.4  |
| 2011-12-26 16:00 | 34.2  |
| 2011-12-26 17:00 | 31.6  |
| 2011-12-26 18:00 | 25.8  |
| 2011-12-26 19:00 | 21.9  |
| 2011-12-26 20:00 | 24.2  |
| 2011-12-26 21:00 | 0.0   |
| 2011-12-26 22:00 | 0.0   |
| 2011-12-26 23:00 | 0.0   |
| 2011-12-27 00:00 | 0.0   |
| 2011-12-27 01:00 | 26.2  |
| 2011-12-27 02:00 | 21.9  |
| 2011-12-27 03:00 | 13.6  |
| 2011-12-27 04:00 | 14.4  |
| 2011-12-27 05:00 | 13.1  |
| 2011-12-27 06:00 | 13.9  |
| 2011-12-27 07:00 | 24.1  |
| 2011-12-27 08:00 | 34.8  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-27 09:00 | 46.9  |
| 2011-12-27 10:00 | 66.5  |
| 2011-12-27 11:00 | 83.0  |
| 2011-12-27 12:00 | 93.8  |
| 2011-12-27 13:00 | 98.3  |
| 2011-12-27 14:00 | 111.1 |
| 2011-12-27 15:00 | 114.0 |
| 2011-12-27 16:00 | 113.9 |
| 2011-12-27 17:00 | 104.0 |
| 2011-12-27 18:00 | 102.7 |
| 2011-12-27 19:00 | 117.3 |
| 2011-12-27 20:00 | 124.6 |
| 2011-12-27 21:00 | 135.4 |
| 2011-12-27 22:00 | 142.4 |
| 2011-12-27 23:00 | 138.8 |
| 2011-12-28 00:00 | 138.8 |
| 2011-12-28 01:00 | 130.4 |
| 2011-12-28 02:00 | 124.0 |
| 2011-12-28 03:00 | 126.1 |
| 2011-12-28 04:00 | 138.0 |
| 2011-12-28 05:00 | 149.1 |
| 2011-12-28 06:00 | 155.1 |
| 2011-12-28 07:00 | 191.4 |
| 2011-12-28 08:00 | 219.0 |
| 2011-12-28 09:00 | 243.8 |
| 2011-12-28 10:00 | 256.7 |
| 2011-12-28 11:00 | 260.3 |
| 2011-12-28 12:00 | 263.4 |
| 2011-12-28 13:00 | 264.3 |
| 2011-12-28 14:00 | 262.6 |
| 2011-12-28 15:00 | 249.3 |
| 2011-12-28 16:00 | 242.3 |
| 2011-12-28 17:00 | 241.3 |
| 2011-12-28 18:00 | 240.2 |
| 2011-12-28 19:00 | 254.4 |
| 2011-12-28 20:00 | 251.2 |
| 2011-12-28 21:00 | 236.0 |
| 2011-12-28 22:00 | 229.7 |
| 2011-12-28 23:00 | 196.1 |
| 2011-12-29 00:00 | 152.6 |
| 2011-12-29 01:00 | 233.3 |
| 2011-12-29 02:00 | 238.7 |
| 2011-12-29 03:00 | 245.2 |
| 2011-12-29 04:00 | 254.3 |
| 2011-12-29 05:00 | 260.9 |
| 2011-12-29 06:00 | 261.4 |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-29 07:00 | 261.1 |
| 2011-12-29 08:00 | 261.1 |
| 2011-12-29 09:00 | 261.1 |
| 2011-12-29 10:00 | 264.4 |
| 2011-12-29 11:00 | 264.5 |
| 2011-12-29 12:00 | 264.5 |
| 2011-12-29 13:00 | 264.5 |
| 2011-12-29 14:00 | 264.5 |
| 2011-12-29 15:00 | 264.5 |
| 2011-12-29 16:00 | 264.5 |
| 2011-12-29 17:00 | 264.5 |
| 2011-12-29 18:00 | 264.5 |
| 2011-12-29 19:00 | 264.5 |
| 2011-12-29 20:00 | 264.5 |
| 2011-12-29 21:00 | 264.5 |
| 2011-12-29 22:00 | 264.5 |
| 2011-12-29 23:00 | 264.5 |
| 2011-12-30 00:00 | 264.5 |
| 2011-12-30 01:00 | 264.1 |
| 2011-12-30 02:00 | 261.1 |
| 2011-12-30 03:00 | 260.9 |
| 2011-12-30 04:00 | 260.2 |
| 2011-12-30 05:00 | 253.3 |
| 2011-12-30 06:00 | 252.4 |
| 2011-12-30 07:00 | 237.2 |
| 2011-12-30 08:00 | 224.3 |
| 2011-12-30 09:00 | 200.5 |
| 2011-12-30 10:00 | 186.3 |
| 2011-12-30 11:00 | 155.3 |
| 2011-12-30 12:00 | 142.0 |
| 2011-12-30 13:00 | 116.7 |
| 2011-12-30 14:00 | 90.0  |
| 2011-12-30 15:00 | 70.5  |
| 2011-12-30 16:00 | 44.4  |
| 2011-12-30 17:00 | 25.2  |
| 2011-12-30 18:00 | 18.9  |
| 2011-12-30 19:00 | 9.2   |
| 2011-12-30 20:00 | 9.3   |
| 2011-12-30 21:00 | 12.7  |
| 2011-12-30 22:00 | 22.3  |
| 2011-12-30 23:00 | 25.9  |
| 2011-12-31 00:00 | 36.0  |
| 2011-12-31 01:00 | 10.0  |
| 2011-12-31 02:00 | 17.5  |
| 2011-12-31 03:00 | 21.2  |
| 2011-12-31 04:00 | 23.0  |

## Day ahead wind forecast

|                  |       |
|------------------|-------|
| 2011-12-31 05:00 | 23.9  |
| 2011-12-31 06:00 | 27.4  |
| 2011-12-31 07:00 | 34.6  |
| 2011-12-31 08:00 | 35.8  |
| 2011-12-31 09:00 | 39.7  |
| 2011-12-31 10:00 | 48.3  |
| 2011-12-31 11:00 | 57.2  |
| 2011-12-31 12:00 | 82.2  |
| 2011-12-31 13:00 | 93.9  |
| 2011-12-31 14:00 | 101.9 |
| 2011-12-31 15:00 | 107.7 |
| 2011-12-31 16:00 | 100.0 |
| 2011-12-31 17:00 | 103.3 |
| 2011-12-31 18:00 | 108.2 |
| 2011-12-31 19:00 | 97.7  |
| 2011-12-31 20:00 | 82.8  |
| 2011-12-31 21:00 | 75.2  |
| 2011-12-31 22:00 | 61.7  |
| 2011-12-31 23:00 | 55.3  |
| 2012-01-01 00:00 | 52.8  |

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1 **Request IR-5:**

2  
3 **Reference: Appendix 6.02, Table 2.1, page 9 of 42.**

4  
5 **(a) What does the "Annual GWh" data represent for each project, in particular, is it**  
6 **latest year, or average year output, or some other computation? Please be specific.**  
7 **For each of the listed wind projects, please provide annual and monthly calendar**  
8 **year output data for each of the years the projects have been in service and indicate**  
9 **the month of the installed year in which the project was fully operational.**

10  
11 **(b) As available, please provide all hourly wind output data for all wind power in Nova**  
12 **Scotia over the past five years, in electronic (excel) format with all formulas intact.**

13  
14 **(c) Please explain the extent to which NSP's estimates for wind capacity factor in the**  
15 **Maritime Link and two alternatives analysis vary from the information provided in**  
16 **the 2008 Hatch Wind Integration Report. In particular, please state whether the**  
17 **available wind output, prior to curtailment, used in the indigenous wind alternative**  
18 **assumes capacity factors equal to or similar to those from the Hatch study.**

19  
20 **Response IR-5:**

21  
22 **(a) The annual GWh values were developed according to Fuel Adjustment Mechanism Plan**  
23 **of Administration guidelines. Please refer to part (b) for sub annual details.**

24  
25 **(b) Please refer to Attachment 1. Please note that according to the Independent Power**  
26 **Producers Interconnection Agreement only wind farms whose capacity is larger than 5**  
27 **MW are required to be telemetered on SCADA (System Control and data Acquisition)**  
28 **system with hourly energy output values. Smaller Independent Power Producers energy**  
29 **production hourly data is not available on SCADA. Hourly wind generation data from**



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1 Independent Power Producers (IPP) although available to NS Power for use in system  
2 operation planning, is not owned by NS Power and as such it cannot be provided to the  
3 level of detail requested. As an alternative, wind generation data with a NS Power  
4 ownership component is provided, and IPP wind data is aggregated into a single column.  
5

- 6 (c) The 2008 Hatch wind integration study relied on AWS TruePower 2006 wind speed  
7 measurements to estimate wind capacity factors, since province-wide actual wind  
8 generation data was not available. Since the Hatch study, NS Power has gathered data  
9 from several geographically diverse wind farm installations in Nova Scotia, which has  
10 enabled the development of more accurate forecasts of wind capacity factors in the  
11 province. Please refer to Attachment 1.  
12

13 For example, based on the actual wind generation data, the Hatch study underestimated  
14 the wind capacity factors for the large wind installations in Pictou/Truro and Valley  
15 areas, while it overestimated the capacity factors in the Canso/Cape Breton area.  
16 Reference: Nova Scotia Department of Energy - Nova Scotia Wind Integration Study,  
17 Table 4-2.  
18

19 NS Power developed data was used for the available wind output, prior to curtailment, in  
20 the indigenous wind alternative, these more accurate capacity factors remain comparable  
21 to those from the 2008 Hatch Wind Integration study.

This file has been provided in Electronic Excel spreadsheet format only.

It is available for viewing on

<http://www.nsuarb.ca>

under Matter Title ML-2013-01 Maritime Link Application (Muskrat Falls)

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1 **Request IR-6:**

2  
3 **Reference: Figure 6-3 of Application, Section 6.3 Alternatives Analysis, Wind Capacity**  
4 **Factor, Performance in the Indigenous wind case**

5  
6 **(a) Where is the anticipated location (by NS wind zone, per the 2008 Hatch Report on**  
7 **Wind Integration) of the incremental wind resources (i.e., the 425 MW of new wind**  
8 **by 2020) for the indigenous wind alternative?**

9  
10 **(b) What other assumptions are made as to location of wind for the incremental wind**  
11 **requirements beyond 2020 for the indigenous wind case (i.e., the additional wind up**  
12 **to 575 MW incremental for the base case)?**

13  
14 **(c) What is the specific average annual capacity factors for each of the individual wind**  
15 **farms, or the aggregate (by NS wind zone) wind farm installations, in 2020 and in**  
16 **other years for the indigenous wind case?**

17  
18 **Response IR-6:**

19  
20 **(a) Strategist is a single zone model and as such it does not take into account resource**  
21 **location. For the purpose of this study the incremental wind resources were assumed to**  
22 **be distributed proportionate to the present wind resources following the same**  
23 **amalgamated wind shape.**

24  
25 **(b) Please see the response to part (a).**

26  
27 **(c) The average capacity factor of incremental wind installations in the indigenous wind case**  
28 **is assumed to be the average capacity factor of the existing wind generation modified to**  
29 **reflect curtailment. Please refer to Synapse IR-2 (a) for details.**

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1 **Request IR-7:**

2  
3 **Reference: Appendix 6.02 page 14 of 42, contribution from wind at peak, and page 33- 37**  
4 **of 42, "minimum unit commitment" or wind output as share of load during low load**  
5 **periods.**

6  
7 **(a) For each of NSPI's top 10 winter peak days during winter seasons 2012-2013 (to**  
8 **date), 2011-2012, 2010-2011, and 2009-2010, please provide the actual (if available)**  
9 **or estimated total wind energy output and associated installed capacity during those**  
10 **40 days. If available, provide the hourly (or sub-hourly, if available) output of total**  
11 **wind over each and all of the ten 24-hour periods (or additional sub-hourly periods,**  
12 **if available). If available for only a subset of wind farms, please indicate and provide**  
13 **such data. If such data are not available, please provide all data and supporting**  
14 **information to support the statement that "the average capacity contribution from**  
15 **wind during peak load conditions is in the range of 20% of nameplate", as stated on**  
16 **page 14 of 42.**

17  
18 **(b) Please provide hourly data on wind output and NSP hourly load for the ten days in**  
19 **each of calendar years 2011-2012, 2010-2011, and 2009-2010 when there were hours**  
20 **that the ratio of wind output to load (hourly) was at its highest. Please provide the**  
21 **actual (if available) or estimated total wind output during those 30 days. If**  
22 **available, provide the hourly (or sub-hourly, if available) output of total wind over**  
23 **each and all of the ten 24-hour periods (or additional sub-hourly periods, if**  
24 **available). If available for only a subset of wind farms, please indicate and provide**  
25 **such data. Indicate the installed wind capacity at the time for all of the hourly**  
26 **periods. For these hours, provide data indicating the output of other capacity**  
27 **resources online in the province.**

28  
29 **(c) Provide the underlying graph and data for Figure 3-9. Include all formulas intact.**  
30 **Provide all data on thermal generation on-line in this graphic.**

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1 **(d) Provide any additional supporting underlying data or information for Figure 3.3.**

2  
3 Response IR-7:

4  
5 (a-d) The requested analysis was not performed in preparing this Application.

6  
7 Hourly load forecast data can be found on NS Power's Open Access Same-time  
8 Information System (OASIS).

9  
10 Hourly wind generation data can be found in the answer to Synapse IR-005.

11 Individual wind generator capacities and in service dates can be found in the answer to  
12 Can WEA IR-001.

13  
14 The statement regarding average wind contribution on peak being 20 percent of  
15 nameplate, was taken from ICF International white paper titled "Integrating Variable  
16 Renewable Electric Power Generators and the Natural Gas Infrastructure" November  
17 2011, Page 7:

18  
19 As discussed above, electric system operators typically allow approximately 10  
20 to 20 percent of the variable renewable capacity to count toward system  
21 planning reserve margins.

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1 **Request IR-8:**

2

3 **Reference: Appendix 6.02 page 14 of 42, actual curtailment of wind to date.**

4

5 **Please provide hourly data on curtailment of wind during 2011 and 2012. For all incidences**  
6 **of curtailment, provide hourly data on wind output, available wind output, level of**  
7 **curtailment, and reason for the curtailment.**

8

9 Response IR-8:

10

11 The table below outlines all wind curtailment incidents since 2011:

12

| <b>DATE</b>      | <b>Wind Farms</b>  | <b>Level of Curtailment</b>                      | <b>Reason</b>   |
|------------------|--|--|-----------------|
| 2011-10-26 02:06 | Bear Head<br>Nuttby  | Total<br>Total                                   | System security |
| 2011-12-08 05:45 | Gulliver's Cove<br>Dalhousie                               | Partial<br>Partial                               | System security |
| 2012-07-20 03:42 | Glen Dhu<br>Lingan<br>Pubnico Point<br>Maryvale<br>Amherst | Partial<br>Partial<br>Patial<br>Total<br>Partial | System security |
| 2012-08-28 03:39 | Gulliver's Cove<br>Dalhousie                               | Partial<br>Partial                               | System security |
| 2012-08-31 00:33 | Glen Dhu   | Partial  | System security |
| 2012-09-01 05:45 | Glen Dhu   | Partial  | System security |
| 2012-10-16 01:25 | Nuttby   | Partial  | System security |
| 2012-10-16 01:28 | Bear Head  | Partial  | System security |
| 2012-10-16 01:34 | Glen Dhu   | Partial  | System security |

Maritime Link Project (NSUARB ML-2013-01)  
NSPML Responses to Synapse Information Requests

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| <b>DATE</b>      | <b>Wind Farms</b> | <b>Level of Curtailment</b> | <b>Reason</b>   |
|------------------|-------------------|-----------------------------|-----------------|
| 2012-12-11 01:47 | Lingan            | Partial                     | System security |
| 2012-12-11 01:50 | Pubnico           | Partial                     | System security |
| 2012-12-11 01:54 | Maryvale          | Total                       | System security |
| 2012-12-11 01:55 | Amherst           | Partial                     | System security |
| 2012-12-11 01:57 | Gulliver's Cove   | Partial                     | System security |
| 2012-12-11 02:04 | Dalhousie         | Partial                     | System security |
| 2012-12-11 02:07 | Nuttby            | Partial                     | System security |
| 2012-12-11 02:25 | Bear Head         | Partial                     | System security |

- 1
- 2 Available wind output cannot be calculated with accuracy since NS Power does not track
- 3 maintenance, and forced outages on Independent Power Producer (IPP) sites.

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1 **Request IR-9:**

2

3 **Reference: Appendix 6.02 page 16 of 42.**

4

5 **Please provide the document referenced in footnote 16, "Committee on Climate Change**  
6 **2011 ", pertaining to an estimate of the cost of additional reserves.**

7

8 Response IR-9:

9

10 A hyperlink for the referenced document is included in the Bibliography of Appendix 6.02. The  
11 document is available at:

12

13 [http://hmccc.s3.amazonaws.com/Renewables%20Review/The%20renewable%20energy%20revi](http://hmccc.s3.amazonaws.com/Renewables%20Review/The%20renewable%20energy%20review_Printout.pdf)

14 [ew\\_Printout.pdf](http://hmccc.s3.amazonaws.com/Renewables%20Review/The%20renewable%20energy%20review_Printout.pdf)



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1 **Request IR-10:**

2

3 **Reference: 2012 NSP Ten-Year System Outlook, page 15-16, Wind Integration**

4

5 **(a) When will the GE wind integration report be available?**

6

7 **(b) Please provide any information currently available (based on the GE wind**  
8 **integration study) that documents the MW levels of required increases in operating**  
9 **reserve requirements needed under different scenarios of increased wind resource**  
10 **use in the Province. Where available, identify the type of increased operating**  
11 **reserve required, e.g., but not limited to, load following or regulation requirements.**

12

13 **Response IR-10:**

14

15 a) Please refer to CA IR-22

16

17 b) This information will be provided in the GE Renewable Energy Integration Study final  
18 report.

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1 **Request IR-11:**

2  
3 **Reference: Section 6.3 and 6.4 Application, Alternatives Analysis and Results of the**  
4 **Analysis, and Slides 15 and 16 from "Alternatives Analysis", Technical Conference**  
5 **2/14/2013.**

6  
7 **(a) Please provide all supporting spreadsheets (with original excel formulas intact) and**  
8 **other documents underlying the computation of the net present value of the**  
9 **Maritime Link and the alternatives analyzed.**

10  
11 **(b) Include all data on the annual, monthly, and/or on-peak periods over which NS**  
12 **Block energy will flow, including the block energy and the supplemental energy.**

13  
14 **(c) Include all data on the annual, monthly, and/or on-peak periods over which surplus**  
15 **energy assumed purchased by NSP will flow.**

16  
17 **(d) Include all data on the annual, monthly, and/or on-peak periods over which Nalcor**  
18 **surplus energy will flow across the NSP system and be exported at the NS-NB**  
19 **border.**

20  
21 **(e) Include in the request in a) above the specific information about the parameters**  
22 **used for the NPV results presented on slide 15 and 16 referenced above, and in**  
23 **Figure 6-6 through Figure 6-14 of Section 6.4 of the application. These parameters**  
24 **include but are not limited to the life of the asset, end effects, discount rate, inflation**  
25 **rate, additional capital requirements over the planning period or study horizon, etc.**

26  
27 **(f) If not included in a) above, provide the source spreadsheet documents with all**  
28 **formulas intact used to create Figures 6-7, 6-8, 6-10, and 6-11.**

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- 1 **(g) If not included in a) above, provide the source spreadsheet documents with all**  
2 **formulas intact used to create the tables labeled as Figures 6-6, 6-9,6-12, 6-13, 6-14.**  
3  
4 **(h) Please provide the annual values used to calculate each NPV.**  
5  
6 **(i) Please provide the specific components that make up each annual value used in the**  
7 **NPV calculation. e.g. all cost and income components that combine to result in the**  
8 **annual values.**  
9  
10 **(j) Please identify how each of those components is constructed and the underlying**  
11 **assumptions that are used.**

12  
13 Response IR-11:

- 14  
15 (a) Please refer to Electronic Attachment 1 for the Excel spreadsheets showing the  
16 calculation of the NPV of planning period costs (2015-2040) for the Base Load, Low  
17 Load, High Power and Gas Price Sensitivity, and the Low Power and Gas Price  
18 Sensitivity.

19  
20 The study period costs include the planning period costs plus end effects. Strategist  
21 calculates the end effects as a single net present value to represent the operating and  
22 capital costs beyond 2040. Attachment 2 shows the planning and study period costs for  
23 each case and compares the costs of the Maritime Link Project to the other two  
24 alternatives.

25  
26 The study period costs of the Maritime Link cases shown in Attachment 2 have been  
27 adjusted to account for the 35 year depreciation life of the Project versus the 50 year  
28 operating life. For years 36-50 the energy from the NS Block is assumed to be priced  
29 based on market forecasts. This is repeated every 50 years in the study period. The NPV

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1 of this stream of costs converges to the following values which were added to the Study  
2 period costs:

3  
4 Base Load and Low Load = \$134 M

5 High Power and Gas Price Sensitivity = \$170 M

6 Low Power and Gas Price Sensitivity = \$111 M

7  
8 (b) Please refer to Attachment 3.

9  
10 (c) Please refer to Attachment 4.

11  
12 (d) The Stratgeist model assumed that there was no flow through of energy across Nova  
13 Scotia to the NS-NB border. If flow through energy had been modeled, Strategist would  
14 assume this energy would be purchased by NS Power and re-sold across the NS-NB  
15 border resulting in a revenue for NS Power. No flow-through energy was modeled to  
16 avoid creating this revenue stream.

17  
18 (e) The Parameters used for the NPV results include:

19  
20 Discount rate 6.56 percent

21  
22 Inflation rate 2 percent

23  
24 End effects – infinite

- 25  
26 • Resource plans for each alternative under the Base Load and Low Load are shown  
27 in Appendix 6.06, page 1 and 4. They include additional capital requirements in  
28 the planning period for each case.

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- 1           •       In the study period no additional capital investments are assumed. Capital costs  
2                   beyond the planning period include the remaining initial lifetime of each asset  
3                   added in the planning period plus replacements-in-kind beyond 2040.  
4  
5           •       Life of the assets:  
6  
7                   Maritime Link – 35 year depreciation, 50 years operating  
8  
9                   Other import – 45 years  
10  
11                  Incremental Wind – 20 years  
12  
13                  Combustion turbine and Combined cycle options – 40 years  
14  
15 (f-h) Refer to Part a.  
16  
17 (i)       Refer to Attachment 5 for a breakdown of the annual operating and capital costs used in  
18           the NPV calculations.  
19  
20 (j)       Please refer to part e and Appendix 6.03 for the underlying assumptions of these  
21           components.

PV Benefit of Maritime Link vs Other Import (Base Load)

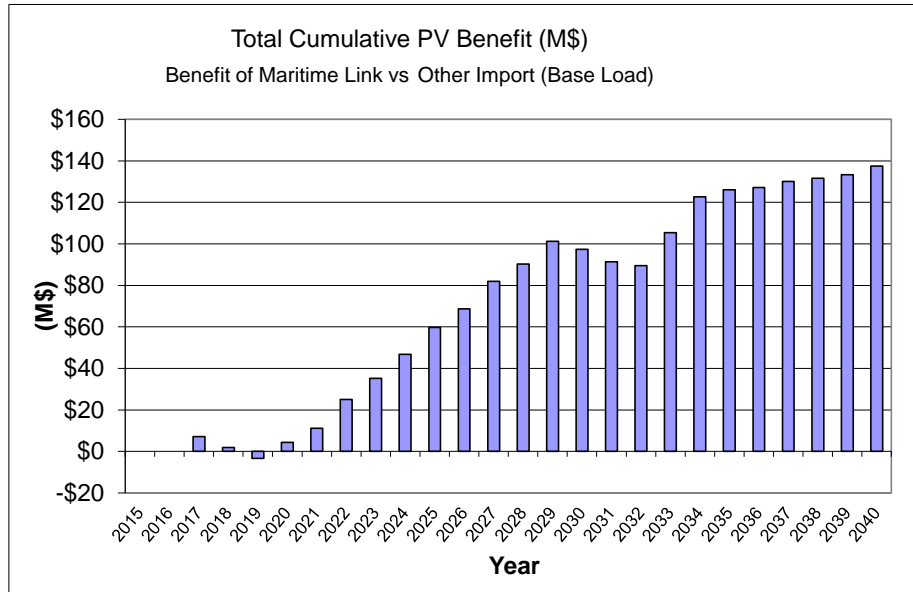
Operating Costs:

Capital Costs:

| Year                  | Operating Costs:    |                    |                          | Capital Costs: |                     |                    | Benefit Nominal \$ (k\$) | Total Cumulative PV Benefit (\$2015) (M\$) |
|-----------------------|---------------------|--------------------|--------------------------|----------------|---------------------|--------------------|--------------------------|--|
|                       | Maritime Link (k\$) | Other Import (k\$) | Benefit Nominal \$ (k\$) | Year           | Maritime Link (k\$) | Other Import (k\$) |                          |  |
| 2015                  | 592,093             | \$592,093          | 0                        | 2015           | 0                   | 0                  | 0                        | 0  |
| 2016                  | 618,246             | \$618,246          | 0                        | 2016           | 0                   | 0                  | 0                        | 0  |
| 2017                  | 623,768             | \$645,760          | 21,991                   | 2017           | 22,033              | 8,118              | -13,916                  | 7  |
| 2018                  | 567,959             | \$660,372          | 92,413                   | 2018           | 155,703             | 56,906             | -98,797                  | 2  |
| 2019                  | 580,464             | \$676,751          | 96,288                   | 2019           | 160,477             | 57,450             | -103,027                 | -3   |
| 2020                  | 602,893             | \$706,689          | 103,796                  | 2020           | 151,105             | 57,845             | -93,260                  | 4  |
| 2021                  | 616,539             | \$724,522          | 107,983                  | 2021           | 155,948             | 58,103             | -97,845                  | 11   |
| 2022                  | 636,912             | \$746,867          | 109,955                  | 2022           | 146,514             | 58,234             | -88,279                  | 25   |
| 2023                  | 639,517             | \$741,854          | 102,337                  | 2023           | 143,824             | 58,249             | -85,574                  | 35   |
| 2024                  | 653,166             | \$756,879          | 103,713                  | 2024           | 141,413             | 58,158             | -83,255                  | 47   |
| 2025                  | 671,805             | \$777,306          | 105,501                  | 2025           | 139,011             | 57,968             | -81,043                  | 60   |
| 2026                  | 685,881             | \$792,307          | 106,426                  | 2026           | 146,145             | 57,687             | -88,458                  | 69   |
| 2027                  | 701,543             | \$808,642          | 107,099                  | 2027           | 135,823             | 57,324             | -78,499                  | 82   |
| 2028                  | 715,436             | \$824,921          | 109,485                  | 2028           | 147,261             | 56,883             | -90,377                  | 90   |
| 2029                  | 732,727             | \$843,046          | 110,318                  | 2029           | 146,988             | 63,369             | -83,618                  | 101  |
| 2030                  | 754,145             | \$869,519          | 115,374                  | 2030           | 195,331             | 69,804             | -125,527                 | 97   |
| 2031                  | 768,010             | \$884,807          | 116,797                  | 2031           | 202,337             | 68,913             | -133,424                 | 91   |
| 2032                  | 787,646             | \$905,020          | 117,375                  | 2032           | 190,600             | 67,967             | -122,633                 | 90   |
| 2033                  | 815,803             | \$934,136          | 118,333                  | 2033           | 188,085             | 119,599            | -68,486                  | 105  |
| 2034                  | 847,127             | \$972,718          | 125,591                  | 2034           | 185,473             | 117,604            | -67,869                  | 123  |
| 2035                  | 877,362             | \$1,011,246        | 133,884                  | 2035           | 237,533             | 115,565            | -121,968                 | 126  |
| 2036                  | 905,919             | \$1,040,881        | 134,962                  | 2036           | 244,308             | 113,488            | -130,820                 | 127  |
| 2037                  | 939,506             | \$1,069,710        | 130,204                  | 2037           | 229,937             | 111,374            | -118,563                 | 130  |
| 2038                  | 975,696             | \$1,099,057        | 123,362                  | 2038           | 226,051             | 109,227            | -116,824                 | 132  |
| 2039                  | 1,014,363           | \$1,137,667        | 123,304                  | 2039           | 222,107             | 107,050            | -115,057                 | 133  |
| 2040                  | 1,057,688           | \$1,191,452        | 133,764                  | 2040           | 218,113             | 104,844            | -113,269                 | 138  |
| <b>NPV (2015 k\$)</b> | <b>9,030,492</b>    | <b>10,182,719</b>  | <b>1,152,227</b>         |                | <b>1,745,566</b>    | <b>730,867</b>     | <b>-1,014,700</b>        |  |

Maritime Link NPV Planning Period Costs (M\$) 10,776  
 Other Import NPV Planning Period Costs (M\$) 10,914

**Total Cumulative PV Benefit 2015-2040 138 M\$**  
 (Discount Rate is 6.56%)



PV Benefit of Maritime Link vs Indigenous Wind (Base Load)

Operating Costs:

| Year                  | Maritime Link (k\$) | Indigenous Wind (k\$) | Benefit Nominal \$ (k\$) |
|-----------------------|---------------------|-----------------------|--------------------------|
| 2015                  | 592,093             | \$592,093             | 0                        |
| 2016                  | 618,246             | \$618,246             | 0                        |
| 2017                  | 623,768             | \$648,316             | 24,548                   |
| 2018                  | 567,959             | \$667,782             | 99,823                   |
| 2019                  | 580,464             | \$615,666             | 35,202                   |
| 2020                  | 602,893             | \$643,191             | 40,298                   |
| 2021                  | 616,539             | \$656,292             | 39,753                   |
| 2022                  | 636,912             | \$670,889             | 33,977                   |
| 2023                  | 639,517             | \$665,411             | 25,894                   |
| 2024                  | 653,166             | \$684,497             | 31,331                   |
| 2025                  | 671,805             | \$721,058             | 49,254                   |
| 2026                  | 685,881             | \$711,220             | 25,339                   |
| 2027                  | 701,543             | \$735,533             | 33,990                   |
| 2028                  | 715,436             | \$755,619             | 40,183                   |
| 2029                  | 732,727             | \$796,986             | 64,259                   |
| 2030                  | 754,145             | \$840,967             | 86,823                   |
| 2031                  | 768,010             | \$867,857             | 99,848                   |
| 2032                  | 787,646             | \$902,692             | 115,047                  |
| 2033                  | 815,803             | \$958,081             | 142,278                  |
| 2034                  | 847,127             | \$986,584             | 139,457                  |
| 2035                  | 877,362             | \$969,644             | 92,283                   |
| 2036                  | 905,919             | \$1,009,030           | 103,111                  |
| 2037                  | 939,506             | \$1,033,312           | 93,806                   |
| 2038                  | 975,696             | \$1,086,344           | 110,649                  |
| 2039                  | 1,014,363           | \$1,127,646           | 113,283                  |
| 2040                  | 1,057,688           | \$1,186,765           | 129,077                  |
| <b>NPV (2015 k\$)</b> | <b>9,030,492</b>    | <b>9,720,584</b>      | <b>690,092</b>           |

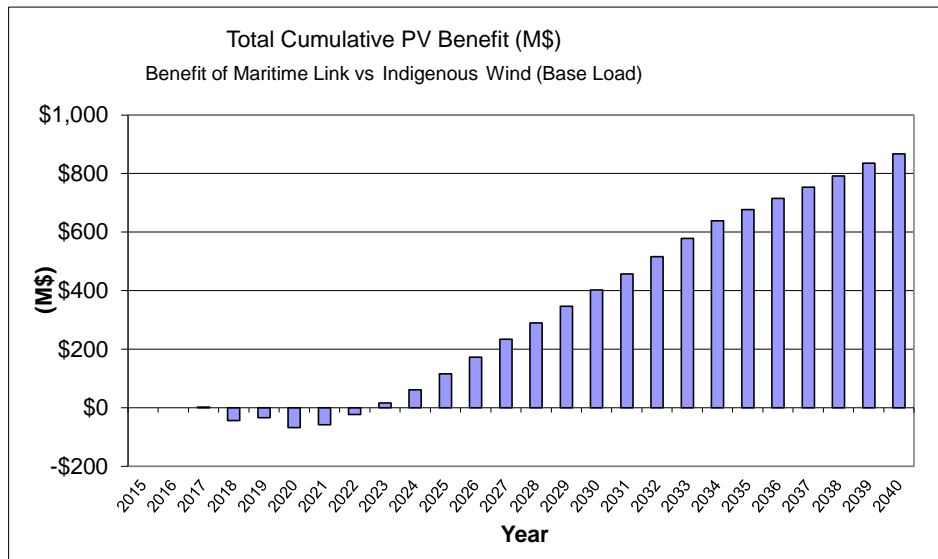
Capital Costs:

| Year                  | Maritime Link (k\$) | Indigenous Wind (k\$) | Benefit Nominal \$ (k\$) |
|-----------------------|---------------------|-----------------------|--------------------------|
| 2015                  | 0                   | 0                     | 0                        |
| 2016                  | 0                   | 0                     | 0                        |
| 2017                  | 22,033              | 0                     | -22,033                  |
| 2018                  | 155,703             | 0                     | -155,703                 |
| 2019                  | 160,477             | 137,315               | -23,163                  |
| 2020                  | 151,105             | 64,285                | -86,820                  |
| 2021                  | 155,948             | 131,907               | -24,041                  |
| 2022                  | 146,514             | 166,528               | 20,015                   |
| 2023                  | 143,824             | 183,203               | 39,379                   |
| 2024                  | 141,413             | 190,096               | 48,683                   |
| 2025                  | 139,011             | 191,635               | 52,624                   |
| 2026                  | 146,145             | 236,043               | 89,898                   |
| 2027                  | 135,823             | 232,164               | 96,341                   |
| 2028                  | 147,261             | 235,091               | 87,830                   |
| 2029                  | 146,988             | 221,421               | 74,433                   |
| 2030                  | 195,331             | 254,479               | 59,148                   |
| 2031                  | 202,337             | 252,898               | 50,562                   |
| 2032                  | 190,600             | 248,683               | 58,083                   |
| 2033                  | 188,085             | 243,014               | 54,929                   |
| 2034                  | 185,473             | 245,244               | 59,771                   |
| 2035                  | 237,533             | 283,683               | 46,150                   |
| 2036                  | 244,308             | 286,101               | 41,792                   |
| 2037                  | 229,937             | 292,415               | 62,479                   |
| 2038                  | 226,051             | 276,625               | 50,574                   |
| 2039                  | 222,107             | 311,265               | 89,159                   |
| 2040                  | 218,113             | 242,405               | 24,292                   |
| <b>NPV (2015 k\$)</b> | <b>1,745,566</b>    | <b>1,922,137</b>      | <b>176,571</b>           |

| Total Cumulative PV Benefit (\$2015) (M\$) |
|--|
| 0  |
| 0  |
| 2  |
| -44  |
| -35  |
| -68  |
| -58  |
| -23  |
| 16   |
| 61   |
| 115  |
| 173  |
| 233  |
| 289  |
| 346  |
| 403  |
| 457  |
| 516  |
| 579  |
| 638  |
| 677  |
| 715  |
| 754  |
| 791  |
| 835  |
| 867  |

Maritime Link NPV Planning Period Costs (M\$) 10,776  
 Indigenous Wind NPV Planning Period Costs (M\$) 11,643

**Total Cumulative PV Benefit 2015-2040 867 M\$**  
 (Discount Rate is 6.56%)



PV Benefit of Maritime Link vs Other Import (Low Load)

Operating Costs:

| Year                  | Maritime Link (k\$) | Other Import (k\$) | Benefit Nominal \$ (k\$) |
|-----------------------|---------------------|--------------------|--------------------------|
| 2015                  | 585,164             | \$585,164          | 0                        |
| 2016                  | 609,145             | \$609,145          | 0                        |
| 2017                  | 613,994             | \$634,032          | 20,038                   |
| 2018                  | 557,858             | \$649,416          | 91,558                   |
| 2019                  | 568,403             | \$663,492          | 95,089                   |
| 2020                  | 514,593             | \$619,254          | 104,661                  |
| 2021                  | 520,808             | \$631,260          | 110,452                  |
| 2022                  | 533,691             | \$645,415          | 111,725                  |
| 2023                  | 523,976             | \$628,963          | 104,987                  |
| 2024                  | 527,771             | \$634,975          | 107,204                  |
| 2025                  | 535,734             | \$645,011          | 109,277                  |
| 2026                  | 538,910             | \$650,148          | 111,238                  |
| 2027                  | 543,351             | \$656,798          | 113,447                  |
| 2028                  | 547,453             | \$663,385          | 115,932                  |
| 2029                  | 548,581             | \$666,315          | 117,734                  |
| 2030                  | 556,704             | \$676,022          | 119,317                  |
| 2031                  | 559,674             | \$682,196          | 122,522                  |
| 2032                  | 564,420             | \$688,796          | 124,375                  |
| 2033                  | 574,028             | \$699,368          | 125,340                  |
| 2034                  | 584,106             | \$712,656          | 128,550                  |
| 2035                  | 596,459             | \$727,408          | 130,948                  |
| 2036                  | 606,571             | \$737,793          | 131,222                  |
| 2037                  | 616,467             | \$750,246          | 133,779                  |
| 2038                  | 626,094             | \$763,298          | 137,204                  |
| 2039                  | 635,855             | \$775,314          | 139,458                  |
| 2040                  | 645,399             | \$787,663          | 142,264                  |
| <b>NPV (2015 k\$)</b> | <b>7,416,325</b>    | <b>8,602,058</b>   | <b>1,185,732</b>         |

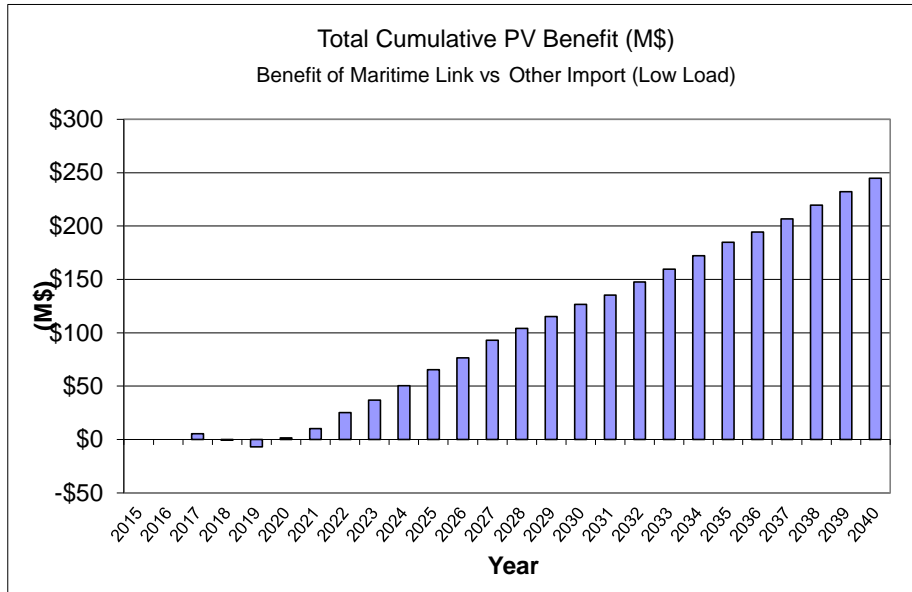
Capital Costs:

| Year                  | Maritime Link (k\$) | Other Import (k\$) | Benefit Nominal \$ (k\$) |
|-----------------------|---------------------|--------------------|--------------------------|
| 2015                  | 0                   | 0                  | 0                        |
| 2016                  | 0                   | 0                  | 0                        |
| 2017                  | 22,033              | 8,118              | -13,916                  |
| 2018                  | 155,703             | 56,906             | -98,797                  |
| 2019                  | 160,477             | 57,450             | -103,027                 |
| 2020                  | 151,105             | 57,845             | -93,260                  |
| 2021                  | 155,948             | 58,103             | -97,845                  |
| 2022                  | 146,514             | 58,234             | -88,279                  |
| 2023                  | 143,824             | 58,249             | -85,574                  |
| 2024                  | 141,413             | 58,158             | -83,255                  |
| 2025                  | 139,011             | 57,968             | -81,043                  |
| 2026                  | 146,145             | 57,687             | -88,458                  |
| 2027                  | 135,823             | 57,324             | -78,499                  |
| 2028                  | 147,261             | 56,883             | -90,377                  |
| 2029                  | 146,988             | 56,373             | -90,615                  |
| 2030                  | 145,738             | 55,797             | -89,941                  |
| 2031                  | 153,641             | 55,162             | -98,479                  |
| 2032                  | 142,802             | 54,471             | -88,331                  |
| 2033                  | 141,185             | 53,731             | -87,454                  |
| 2034                  | 139,471             | 52,944             | -86,527                  |
| 2035                  | 137,673             | 52,114             | -85,559                  |
| 2036                  | 146,337             | 51,245             | -95,092                  |
| 2037                  | 133,855             | 50,340             | -83,515                  |
| 2038                  | 131,858             | 49,401             | -82,457                  |
| 2039                  | 129,802             | 48,432             | -81,370                  |
| 2040                  | 127,698             | 47,435             | -80,263                  |
| <b>NPV (2015 k\$)</b> | <b>1,525,928</b>    | <b>585,072</b>     | <b>-940,856</b>          |

| Total Cumulative PV Benefit (\$2015) (M\$) |     |
|--|-----|
| 2015                                       | 0   |
| 2016                                       | 0   |
| 2017                                       | 5   |
| 2018                                       | -1  |
| 2019                                       | -7  |
| 2020                                       | 2   |
| 2021                                       | 10  |
| 2022                                       | 25  |
| 2023                                       | 37  |
| 2024                                       | 50  |
| 2025                                       | 65  |
| 2026                                       | 77  |
| 2027                                       | 93  |
| 2028                                       | 104 |
| 2029                                       | 115 |
| 2030                                       | 127 |
| 2031                                       | 135 |
| 2032                                       | 148 |
| 2033                                       | 160 |
| 2034                                       | 172 |
| 2035                                       | 185 |
| 2036                                       | 194 |
| 2037                                       | 207 |
| 2038                                       | 220 |
| 2039                                       | 232 |
| 2040                                       | 245 |

Maritime Link NPV Planning Period Costs (M\$) 8,942  
 Other Import NPV Planning Period Costs (M\$) 9,187

**Total Cumulative PV Benefit 2015-2040 245 M\$**  
 (Discount Rate is 6.56%)





PV Benefit of Maritime Link vs Indigenous Wind (Low Load)

Operating Costs:

| Year                  | Maritime Link (k\$) | Indigenous Wind (k\$) | Benefit Nominal \$ (k\$) |
|-----------------------|---------------------|-----------------------|--------------------------|
| 2015                  | 585,164             | \$585,164             | 0                        |
| 2016                  | 609,145             | \$609,145             | 0                        |
| 2017                  | 613,994             | \$637,893             | 23,900                   |
| 2018                  | 557,858             | \$651,539             | 93,681                   |
| 2019                  | 568,403             | \$640,729             | 72,326                   |
| 2020                  | 514,593             | \$577,413             | 62,820                   |
| 2021                  | 520,808             | \$584,542             | 63,734                   |
| 2022                  | 533,691             | \$590,506             | 56,815                   |
| 2023                  | 523,976             | \$572,482             | 48,506                   |
| 2024                  | 527,771             | \$579,144             | 51,373                   |
| 2025                  | 535,734             | \$588,961             | 53,227                   |
| 2026                  | 538,910             | \$592,596             | 53,686                   |
| 2027                  | 543,351             | \$598,143             | 54,791                   |
| 2028                  | 547,453             | \$611,422             | 63,968                   |
| 2029                  | 548,581             | \$632,453             | 83,872                   |
| 2030                  | 556,704             | \$628,190             | 71,486                   |
| 2031                  | 559,674             | \$641,840             | 82,166                   |
| 2032                  | 564,420             | \$638,442             | 74,021                   |
| 2033                  | 574,028             | \$661,255             | 87,227                   |
| 2034                  | 584,106             | \$669,741             | 85,635                   |
| 2035                  | 596,459             | \$688,832             | 92,372                   |
| 2036                  | 606,571             | \$704,346             | 97,775                   |
| 2037                  | 616,467             | \$720,671             | 104,204                  |
| 2038                  | 626,094             | \$734,604             | 108,510                  |
| 2039                  | 635,855             | \$750,659             | 114,804                  |
| 2040                  | 645,399             | \$764,464             | 119,065                  |
| <b>NPV (2015 k\$)</b> | <b>7,416,325</b>    | <b>8,185,364</b>      | <b>769,038</b>           |

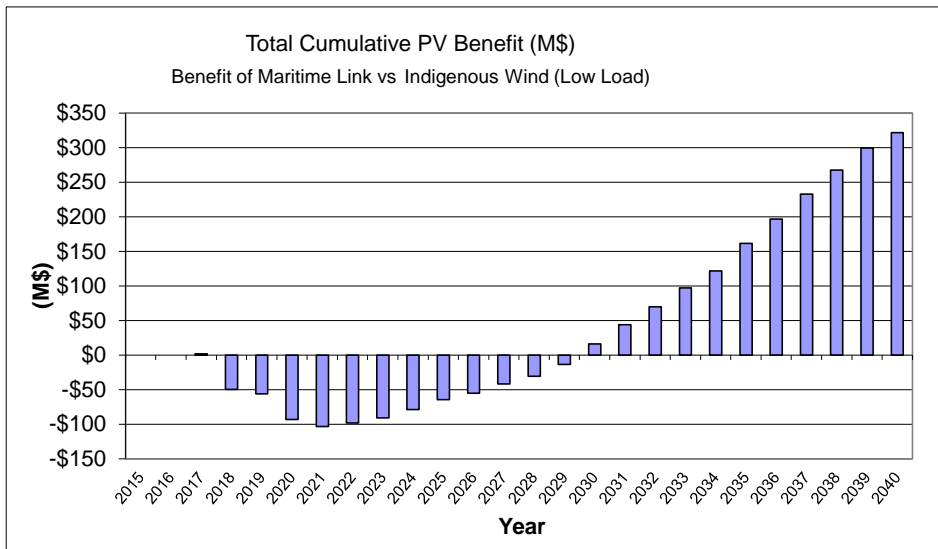
Capital Costs:

| Year                  | Maritime Link (k\$) | Indigenous Wind (k\$) | Benefit Nominal \$ (k\$) |
|-----------------------|---------------------|-----------------------|--------------------------|
| 2015                  | 0                   | 0                     | 0                        |
| 2016                  | 0                   | 0                     | 0                        |
| 2017                  | 22,033              | 0                     | -22,033                  |
| 2018                  | 155,703             | 0                     | -155,703                 |
| 2019                  | 160,477             | 80,003                | -80,475                  |
| 2020                  | 151,105             | 37,297                | -113,809                 |
| 2021                  | 155,948             | 77,174                | -78,773                  |
| 2022                  | 146,514             | 97,612                | -48,902                  |
| 2023                  | 143,824             | 107,479               | -36,345                  |
| 2024                  | 141,413             | 111,585               | -29,829                  |
| 2025                  | 139,011             | 112,540               | -26,472                  |
| 2026                  | 146,145             | 111,760               | -34,386                  |
| 2027                  | 135,823             | 110,015               | -25,808                  |
| 2028                  | 147,261             | 107,725               | -39,536                  |
| 2029                  | 146,988             | 105,118               | -41,869                  |
| 2030                  | 145,738             | 151,915               | 6,177                    |
| 2031                  | 153,641             | 148,099               | -5,542                   |
| 2032                  | 142,802             | 144,202               | 1,400                    |
| 2033                  | 141,185             | 140,245               | -940                     |
| 2034                  | 139,471             | 136,243               | -3,228                   |
| 2035                  | 137,673             | 186,958               | 49,285                   |
| 2036                  | 146,337             | 181,896               | 35,559                   |
| 2037                  | 133,855             | 176,806               | 42,951                   |
| 2038                  | 131,858             | 171,690               | 39,832                   |
| 2039                  | 129,802             | 162,323               | 32,521                   |
| 2040                  | 127,698             | 118,152               | -9,546                   |
| <b>NPV (2015 k\$)</b> | <b>1,525,928</b>    | <b>1,078,842</b>      | <b>-447,086</b>          |

| Total Cumulative PV Benefit (\$2015) (M\$) |
|--|
| 0  |
| 0  |
| 2  |
| -50  |
| -56  |
| -93  |
| -103                                       |
| -98  |
| -91  |
| -79  |
| -65  |
| -55  |
| -41  |
| -31  |
| -14  |
| 16   |
| 44   |
| 70   |
| 97   |
| 122  |
| 162  |
| 197  |
| 233  |
| 268  |
| 300  |
| 322  |

Maritime Link NPV Planning Period Costs (M\$) **8,942**  
 Indigenous Wind NPV Planning Period Costs (M\$) **9,264**

**Total Cumulative PV Benefit 2015-2040 322 M\$**  
 (Discount Rate is 6.56%)

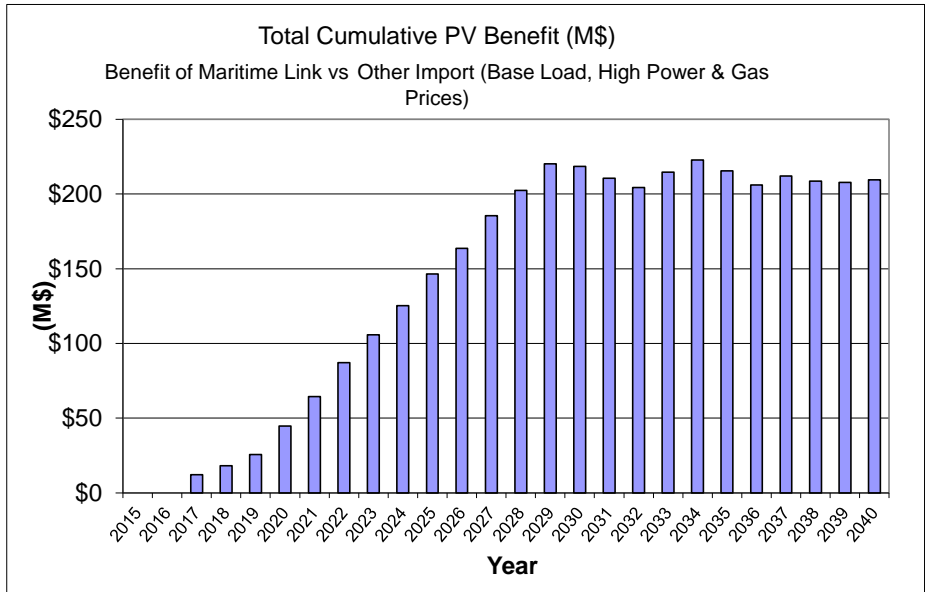


PV Benefit of Maritime Link vs Other Import (Base Load, High Power and Gas Prices)

| Operating Costs:                              |                     |                    |                          | Capital Costs: |                     |                    |                          | Total Cumulative PV Benefit (\$2015) (M\$) |
|---|---------------------|--------------------|--------------------------|----------------|---------------------|--------------------|--------------------------|--|
| Year  | Maritime Link (k\$) | Other Import (k\$) | Benefit Nominal \$ (k\$) | Year           | Maritime Link (k\$) | Other Import (k\$) | Benefit Nominal \$ (k\$) |  |
| 2015  | 615,269             | \$615,269          | 0                        | 2015           | 0                   | 0                  | 0                        | 0  |
| 2016  | 649,337             | \$649,337          | 0                        | 2016           | 0                   | 0                  | 0                        | 0  |
| 2017  | 659,449             | \$687,307          | 27,858                   | 2017           | 22,033              | 8,118              | -13,916                  | 12   |
| 2018  | 612,024             | \$718,009          | 105,985                  | 2018           | 155,703             | 56,906             | -98,797                  | 18   |
| 2019  | 627,404             | \$739,985          | 112,581                  | 2019           | 160,477             | 57,450             | -103,027                 | 26   |
| 2020  | 651,174             | \$770,643          | 119,469                  | 2020           | 151,105             | 57,845             | -93,260                  | 45   |
| 2021  | 663,122             | \$790,039          | 126,917                  | 2021           | 155,948             | 58,103             | -97,845                  | 65   |
| 2022  | 687,539             | \$810,956          | 123,418                  | 2022           | 146,514             | 58,234             | -88,279                  | 87   |
| 2023  | 694,211             | \$810,816          | 116,605                  | 2023           | 143,824             | 58,249             | -85,574                  | 106  |
| 2024  | 709,390             | \$827,387          | 117,997                  | 2024           | 141,413             | 58,158             | -83,255                  | 125  |
| 2025  | 730,151             | \$851,158          | 121,008                  | 2025           | 139,011             | 57,968             | -81,043                  | 147  |
| 2026  | 749,375             | \$872,398          | 123,023                  | 2026           | 146,145             | 57,687             | -88,458                  | 164  |
| 2027  | 767,116             | \$892,441          | 125,326                  | 2027           | 135,823             | 57,324             | -78,499                  | 186  |
| 2028  | 781,127             | \$910,269          | 129,142                  | 2028           | 147,261             | 56,883             | -90,377                  | 203  |
| 2029  | 803,356             | \$929,804          | 126,448                  | 2029           | 146,988             | 63,369             | -83,618                  | 220  |
| 2030  | 840,821             | \$962,219          | 121,399                  | 2030           | 195,331             | 69,804             | -125,527                 | 219  |
| 2031  | 870,366             | \$982,003          | 111,637                  | 2031           | 202,337             | 68,913             | -133,424                 | 211  |
| 2032  | 898,813             | \$1,002,899        | 104,086                  | 2032           | 190,600             | 67,967             | -122,633                 | 204  |
| 2033  | 940,392             | \$1,040,966        | 100,574                  | 2033           | 188,085             | 119,599            | -68,486                  | 215  |
| 2034  | 983,848             | \$1,078,995        | 95,147                   | 2034           | 185,473             | 117,604            | -67,869                  | 223  |
| 2035  | 1,031,667           | \$1,127,714        | 96,047                   | 2035           | 237,533             | 115,565            | -121,968                 | 215  |
| 2036  | 1,076,504           | \$1,171,983        | 95,479                   | 2036           | 244,308             | 113,488            | -130,820                 | 206  |
| 2037  | 1,120,879           | \$1,263,464        | 142,585                  | 2037           | 229,937             | 111,374            | -118,563                 | 212  |
| 2038  | 1,165,195           | \$1,267,140        | 101,945                  | 2038           | 226,051             | 109,227            | -116,824                 | 209  |
| 2039  | 1,222,866           | \$1,333,948        | 111,082                  | 2039           | 222,107             | 107,050            | -115,057                 | 208  |
| 2040  | 1,290,486           | \$1,412,796        | 122,310                  | 2040           | 218,113             | 104,844            | -113,269                 | 210  |
| <b>NPV (2015 k\$)</b>                         | <b>9,960,676</b>    | <b>11,184,998</b>  | <b>1,224,322</b>         |                | <b>1,745,566</b>    | <b>730,867</b>     | <b>-1,014,700</b>        |  |
| Maritime Link NPV Planning Period Costs (M\$) |                     |                    | 11,706                   |                |                     |                    |                          |  |
| Other Import NPV Planning Period Costs (M\$)  |                     |                    | 11,916                   |                |                     |                    |                          |  |

|  |                |
|--|----------------|
| <b>Total Cumulative PV Benefit 2015-2040</b> | <b>210 M\$</b> |
|--|----------------|

(Discount Rate is 6.56%)



PV Benefit of Maritime Link vs Indigenous Wind (Base Load, High Power and Gas Prices)

Operating Costs:

| Year                  | Maritime Link (k\$) | Indigenous Wind (k\$) | Benefit Nominal \$ (k\$) |
|-----------------------|---------------------|-----------------------|--------------------------|
| 2015                  | 615,269             | \$615,269             | 0                        |
| 2016                  | 649,337             | \$649,337             | 0                        |
| 2017                  | 659,449             | \$682,086             | 22,638                   |
| 2018                  | 612,024             | \$708,775             | 96,751                   |
| 2019                  | 627,404             | \$647,140             | 19,736                   |
| 2020                  | 651,174             | \$676,047             | 24,872                   |
| 2021                  | 663,122             | \$687,830             | 24,708                   |
| 2022                  | 687,539             | \$702,392             | 14,853                   |
| 2023                  | 694,211             | \$700,541             | 6,330                    |
| 2024                  | 709,390             | \$732,338             | 22,948                   |
| 2025                  | 730,151             | \$799,008             | 68,857                   |
| 2026                  | 749,375             | \$815,715             | 66,340                   |
| 2027                  | 767,116             | \$863,333             | 96,217                   |
| 2028                  | 781,127             | \$915,451             | 134,324                  |
| 2029                  | 803,356             | \$986,491             | 183,135                  |
| 2030                  | 840,821             | \$1,083,810           | 242,989                  |
| 2031                  | 870,366             | \$1,122,291           | 251,925                  |
| 2032                  | 898,813             | \$1,157,131           | 258,318                  |
| 2033                  | 940,392             | \$1,256,401           | 316,009                  |
| 2034                  | 983,848             | \$1,278,372           | 294,524                  |
| 2035                  | 1,031,667           | \$1,232,538           | 200,871                  |
| 2036                  | 1,076,504           | \$1,288,135           | 211,631                  |
| 2037                  | 1,120,879           | \$1,309,582           | 188,703                  |
| 2038                  | 1,165,195           | \$1,378,852           | 213,657                  |
| 2039                  | 1,222,866           | \$1,461,489           | 238,623                  |
| 2040                  | 1,290,486           | \$1,542,661           | 252,175                  |
| <b>NPV (2015 k\$)</b> | <b>9,960,676</b>    | <b>11,158,566</b>     | <b>1,197,890</b>         |

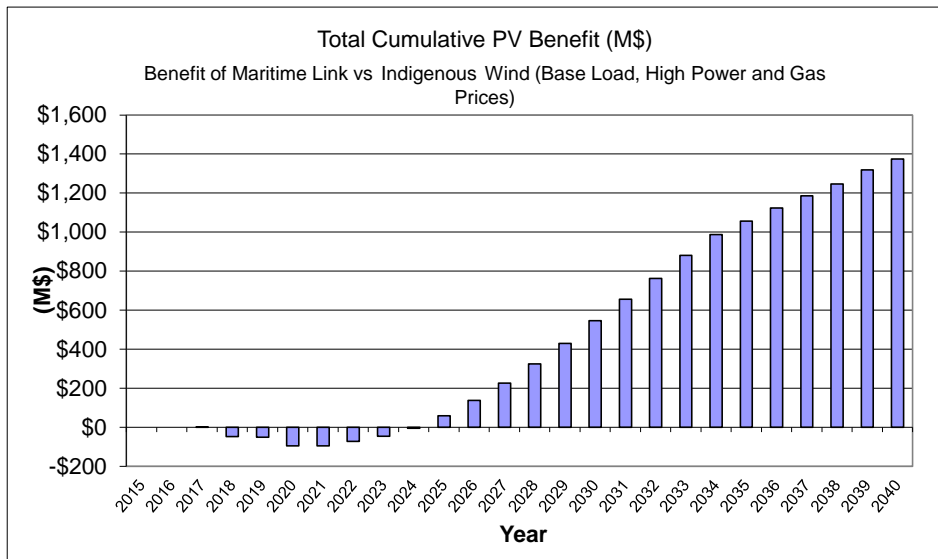
Capital Costs:

| Year                  | Maritime Link (k\$) | Indigenous Wind (k\$) | Benefit Nominal \$ (k\$) |
|-----------------------|---------------------|-----------------------|--------------------------|
| 2015                  | 0                   | 0                     | 0                        |
| 2016                  | 0                   | 0                     | 0                        |
| 2017                  | 22,033              | 0                     | -22,033                  |
| 2018                  | 155,703             | 0                     | -155,703                 |
| 2019                  | 160,477             | 137,315               | -23,163                  |
| 2020                  | 151,105             | 64,285                | -86,820                  |
| 2021                  | 155,948             | 131,907               | -24,041                  |
| 2022                  | 146,514             | 166,528               | 20,015                   |
| 2023                  | 143,824             | 183,203               | 39,379                   |
| 2024                  | 141,413             | 190,096               | 48,683                   |
| 2025                  | 139,011             | 191,635               | 52,624                   |
| 2026                  | 146,145             | 236,043               | 89,898                   |
| 2027                  | 135,823             | 232,164               | 96,341                   |
| 2028                  | 147,261             | 235,091               | 87,830                   |
| 2029                  | 146,988             | 221,421               | 74,433                   |
| 2030                  | 195,331             | 254,479               | 59,148                   |
| 2031                  | 202,337             | 252,898               | 50,562                   |
| 2032                  | 190,600             | 248,683               | 58,083                   |
| 2033                  | 188,085             | 243,014               | 54,929                   |
| 2034                  | 185,473             | 245,244               | 59,771                   |
| 2035                  | 237,533             | 283,683               | 46,150                   |
| 2036                  | 244,308             | 286,101               | 41,792                   |
| 2037                  | 229,937             | 292,415               | 62,479                   |
| 2038                  | 226,051             | 276,625               | 50,574                   |
| 2039                  | 222,107             | 311,265               | 89,159                   |
| 2040                  | 218,113             | 242,405               | 24,292                   |
| <b>NPV (2015 k\$)</b> | <b>1,745,566</b>    | <b>1,922,137</b>      | <b>176,571</b>           |

| Total Cumulative PV Benefit (\$2015) (M\$) |
|--|
| 0  |
| 0  |
| 1  |
| -48  |
| -51  |
| -96  |
| -95  |
| -73  |
| -46  |
| -5   |
| 59   |
| 137  |
| 227  |
| 324  |
| 430  |
| 546  |
| 656  |
| 763  |
| 881  |
| 987  |
| 1,057                                      |
| 1,123                                      |
| 1,185                                      |
| 1,247                                      |
| 1,318                                      |
| 1,374                                      |

Maritime Link NPV Planning Period Costs (M\$) 11,706  
 Indigenous Wind NPV Planning Period Costs (M\$) 13,081

**Total Cumulative PV Benefit 2015-2040 1,374 M\$**  
 (Discount Rate is 6.56%)



PV Benefit of Maritime Link vs Other Import (Base Load, Low Power and Gas Prices)

Operating Costs:

| Year                  | Maritime Link (k\$) | Other Import (k\$) | Benefit Nominal \$ (k\$) |
|-----------------------|---------------------|--------------------|--------------------------|
| 2015                  | 527,116             | \$527,116          | 0                        |
| 2016                  | 552,843             | \$552,843          | 0                        |
| 2017                  | 603,169             | \$628,912          | 25,743                   |
| 2018                  | 547,689             | \$642,120          | 94,431                   |
| 2019                  | 556,340             | \$657,416          | 101,075                  |
| 2020                  | 574,572             | \$685,312          | 110,741                  |
| 2021                  | 590,024             | \$704,397          | 114,373                  |
| 2022                  | 607,035             | \$724,759          | 117,724                  |
| 2023                  | 607,791             | \$719,939          | 112,149                  |
| 2024                  | 620,383             | \$732,729          | 112,346                  |
| 2025                  | 638,550             | \$751,758          | 113,208                  |
| 2026                  | 651,807             | \$764,276          | 112,469                  |
| 2027                  | 665,841             | \$779,871          | 114,030                  |
| 2028                  | 678,539             | \$798,446          | 119,907                  |
| 2029                  | 693,880             | \$815,320          | 121,440                  |
| 2030                  | 687,134             | \$839,451          | 152,318                  |
| 2031                  | 701,698             | \$855,846          | 154,148                  |
| 2032                  | 717,592             | \$876,563          | 158,971                  |
| 2033                  | 740,053             | \$871,130          | 131,077                  |
| 2034                  | 762,996             | \$896,183          | 133,187                  |
| 2035                  | 769,485             | \$924,322          | 154,837                  |
| 2036                  | 792,197             | \$950,853          | 158,657                  |
| 2037                  | 816,365             | \$978,224          | 161,859                  |
| 2038                  | 839,762             | \$1,005,405        | 165,643                  |
| 2039                  | 864,813             | \$1,036,544        | 171,731                  |
| 2040                  | 894,247             | \$1,067,495        | 173,248                  |
| <b>NPV (2015 k\$)</b> | <b>8,360,729</b>    | <b>9,662,832</b>   | <b>1,302,103</b>         |

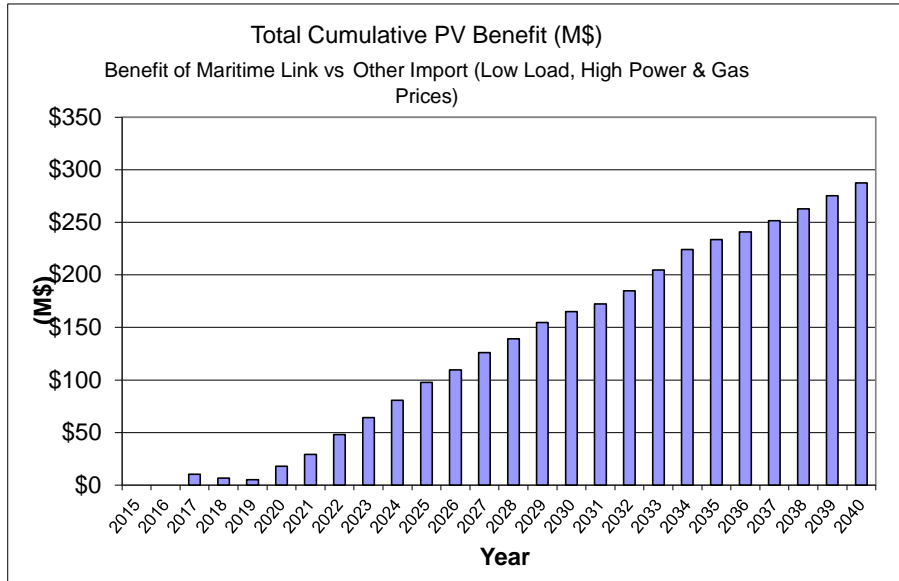
Capital Costs:

| Year                  | Maritime Link (k\$) | Other Import (k\$) | Benefit Nominal \$ (k\$) |
|-----------------------|---------------------|--------------------|--------------------------|
| 2015                  | 0                   | 0                  | 0                        |
| 2016                  | 0                   | 0                  | 0                        |
| 2017                  | 22,033              | 8,118              | -13,916                  |
| 2018                  | 155,703             | 56,906             | -98,797                  |
| 2019                  | 160,477             | 57,450             | -103,027                 |
| 2020                  | 151,105             | 57,845             | -93,260                  |
| 2021                  | 155,948             | 58,103             | -97,845                  |
| 2022                  | 146,514             | 58,234             | -88,279                  |
| 2023                  | 143,824             | 58,249             | -85,574                  |
| 2024                  | 141,413             | 58,158             | -83,255                  |
| 2025                  | 139,011             | 57,968             | -81,043                  |
| 2026                  | 146,145             | 57,687             | -88,458                  |
| 2027                  | 135,823             | 57,324             | -78,499                  |
| 2028                  | 147,261             | 56,883             | -90,377                  |
| 2029                  | 146,988             | 63,369             | -83,618                  |
| 2030                  | 195,331             | 69,804             | -125,527                 |
| 2031                  | 202,337             | 68,913             | -133,424                 |
| 2032                  | 190,600             | 67,967             | -122,633                 |
| 2033                  | 188,085             | 119,599            | -68,486                  |
| 2034                  | 185,473             | 117,604            | -67,869                  |
| 2035                  | 237,533             | 115,565            | -121,968                 |
| 2036                  | 244,308             | 113,488            | -130,820                 |
| 2037                  | 229,937             | 111,374            | -118,563                 |
| 2038                  | 226,051             | 109,227            | -116,824                 |
| 2039                  | 222,107             | 107,050            | -115,057                 |
| 2040                  | 218,113             | 104,844            | -113,269                 |
| <b>NPV (2015 k\$)</b> | <b>1,745,566</b>    | <b>730,867</b>     | <b>-1,014,700</b>        |

Cumulative PV Benefit (\$2015) (M\$)

Maritime Link NPV Planning Period Costs (M\$) 10,106  
 Other Import NPV Planning Period Costs (M\$) 10,394

**Total Cumulative PV Benefit 2015-2040 287 M\$**  
 (Discount Rate is 6.56%)



PV Benefit of Maritime Link vs Indigenous Wind (Base Load, Low Power and Gas Prices)

Operating Costs:

| Year                  | Maritime Link (k\$) | Indigenous Wind (k\$) | Benefit Nominal \$ (k\$) |
|-----------------------|---------------------|-----------------------|--------------------------|
| 2015                  | 527,116             | \$527,116             | 0                        |
| 2016                  | 552,843             | \$552,843             | 0                        |
| 2017                  | 603,169             | \$629,158             | 25,988                   |
| 2018                  | 547,689             | \$642,485             | 94,796                   |
| 2019                  | 556,340             | \$597,169             | 40,829                   |
| 2020                  | 574,572             | \$617,061             | 42,490                   |
| 2021                  | 590,024             | \$631,546             | 41,522                   |
| 2022                  | 607,035             | \$644,349             | 37,314                   |
| 2023                  | 607,791             | \$638,444             | 30,654                   |
| 2024                  | 620,383             | \$652,128             | 31,745                   |
| 2025                  | 638,550             | \$688,744             | 50,194                   |
| 2026                  | 651,807             | \$661,304             | 9,497                    |
| 2027                  | 665,841             | \$675,217             | 9,376                    |
| 2028                  | 678,539             | \$680,002             | 1,463                    |
| 2029                  | 693,880             | \$715,668             | 21,788                   |
| 2030                  | 687,134             | \$739,958             | 52,825                   |
| 2031                  | 701,698             | \$757,554             | 55,856                   |
| 2032                  | 717,592             | \$783,435             | 65,843                   |
| 2033                  | 740,053             | \$815,747             | 75,694                   |
| 2034                  | 762,996             | \$830,797             | 67,801                   |
| 2035                  | 769,485             | \$800,897             | 31,412                   |
| 2036                  | 792,197             | \$827,454             | 35,258                   |
| 2037                  | 816,365             | \$845,205             | 28,840                   |
| 2038                  | 839,762             | \$873,192             | 33,430                   |
| 2039                  | 864,813             | \$886,007             | 21,194                   |
| 2040                  | 894,247             | \$921,831             | 27,584                   |
| <b>NPV (2015 k\$)</b> | <b>8,360,729</b>    | <b>8,809,017</b>      | <b>448,288</b>           |

Capital Costs:

| Year                  | Maritime Link (k\$) | Indigenous Wind (k\$) | Benefit Nominal \$ (k\$) |
|-----------------------|---------------------|-----------------------|--------------------------|
| 2015                  | 0                   | 0                     | 0                        |
| 2016                  | 0                   | 0                     | 0                        |
| 2017                  | 22,033              | 0                     | -22,033                  |
| 2018                  | 155,703             | 0                     | -155,703                 |
| 2019                  | 160,477             | 137,315               | -23,163                  |
| 2020                  | 151,105             | 64,285                | -86,820                  |
| 2021                  | 155,948             | 131,907               | -24,041                  |
| 2022                  | 146,514             | 166,528               | 20,015                   |
| 2023                  | 143,824             | 183,203               | 39,379                   |
| 2024                  | 141,413             | 190,096               | 48,683                   |
| 2025                  | 139,011             | 191,635               | 52,624                   |
| 2026                  | 146,145             | 236,043               | 89,898                   |
| 2027                  | 135,823             | 232,164               | 96,341                   |
| 2028                  | 147,261             | 235,091               | 87,830                   |
| 2029                  | 146,988             | 221,421               | 74,433                   |
| 2030                  | 195,331             | 254,479               | 59,148                   |
| 2031                  | 202,337             | 252,898               | 50,562                   |
| 2032                  | 190,600             | 248,683               | 58,083                   |
| 2033                  | 188,085             | 243,014               | 54,929                   |
| 2034                  | 185,473             | 245,244               | 59,771                   |
| 2035                  | 237,533             | 283,683               | 46,150                   |
| 2036                  | 244,308             | 286,101               | 41,792                   |
| 2037                  | 229,937             | 292,415               | 62,479                   |
| 2038                  | 226,051             | 276,625               | 50,574                   |
| 2039                  | 222,107             | 311,265               | 89,159                   |
| 2040                  | 218,113             | 242,405               | 24,292                   |
| <b>NPV (2015 k\$)</b> | <b>1,745,566</b>    | <b>1,922,137</b>      | <b>176,571</b>           |

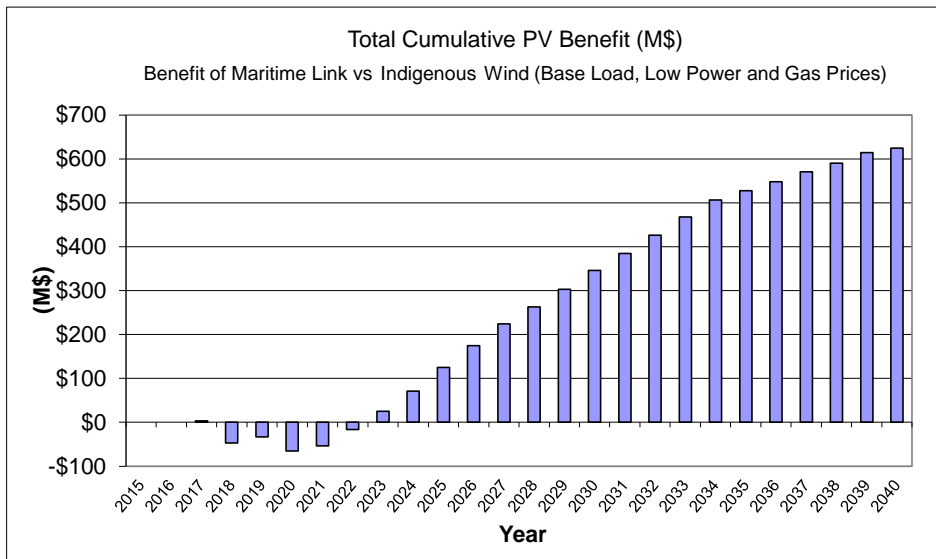
Total

Cumulative PV Benefit (\$2015) (M\$)

|      |     |
|------|-----|
| 2015 | 0   |
| 2016 | 0   |
| 2017 | 3   |
| 2018 | -47 |
| 2019 | -33 |
| 2020 | -65 |
| 2021 | -53 |
| 2022 | -17 |
| 2023 | 25  |
| 2024 | 71  |
| 2025 | 125 |
| 2026 | 175 |
| 2027 | 224 |
| 2028 | 263 |
| 2029 | 303 |
| 2030 | 346 |
| 2031 | 384 |
| 2032 | 426 |
| 2033 | 468 |
| 2034 | 506 |
| 2035 | 528 |
| 2036 | 548 |
| 2037 | 571 |
| 2038 | 590 |
| 2039 | 614 |
| 2040 | 625 |

Maritime Link NPV Planning Period Costs (M\$) 10,106  
 Indigenous Wind NPV Planning Period Costs (M\$) 10,731

**Total Cumulative PV Benefit 2015-2040 625 M\$**  
 (Discount Rate is 6.56%)



Synapse IR-011 Att 2

| <b>Base Load Cases</b>  | <b>Maritime Link (ML)</b> | <b>Additional Cost versus</b> |                       | <b>Additional Cost versus</b> |                       |
|-------------------------|---------------------------|-------------------------------|-----------------------|-------------------------------|-----------------------|
|                         |                           | <b>Other Import</b>           | <b>ML Alternative</b> | <b>Indigenous Wind</b>        | <b>ML Alternative</b> |
| Planning Period NPV \$M | 10,776                    | 10,914                        | 138                   | 11,643                        | 867                   |
| Study Period NPV \$M    | 16,209                    | 16,496                        | 287                   | 18,182                        | 1,973                 |

| <b>Low Load Cases</b>   | <b>Maritime Link (ML)</b> | <b>Additional Cost versus</b> |                       | <b>Additional Cost versus</b> |                       |
|-------------------------|---------------------------|-------------------------------|-----------------------|-------------------------------|-----------------------|
|                         |                           | <b>Other Import</b>           | <b>ML Alternative</b> | <b>Indigenous Wind</b>        | <b>ML Alternative</b> |
| Planning Period NPV \$M | 8,942                     | 9,187                         | 245                   | 9,264                         | 322                   |
| Study Period NPV \$M    | 12,221                    | 12,753                        | 532                   | 13,244                        | 1,023                 |

| <b>Base Load, High Power and Gas Prices</b> | <b>Maritime Link (ML)</b> | <b>Additional Cost versus</b> |                       | <b>Additional Cost versus</b> |                       |
|---|---------------------------|-------------------------------|-----------------------|-------------------------------|-----------------------|
|   |                           | <b>Other Import</b>           | <b>ML Alternative</b> | <b>Indigenous Wind</b>        | <b>ML Alternative</b> |
| Planning Period NPV \$M                     | 11,706                    | 11,916                        | 210                   | 13,081                        | 1,375                 |
| Study Period NPV \$M                        | 18,238                    | 18,491                        | 253                   | 21,296                        | 3,058                 |

| <b>Base Load, Low Power and Gas Prices</b> | <b>Maritime Link (ML)</b> | <b>Additional Cost versus</b> |                       | <b>Additional Cost versus</b> |                       |
|--|---------------------------|-------------------------------|-----------------------|-------------------------------|-----------------------|
|  |                           | <b>Other Import</b>           | <b>ML Alternative</b> | <b>Indigenous Wind</b>        | <b>ML Alternative</b> |
| Planning Period NPV \$M                    | 10,106                    | 10,394                        | 287                   | 10,731                        | 625                   |
| Study Period NPV \$M                       | 14,767                    | 15,394                        | 627                   | 16,059                        | 1,292                 |

Synapse IR-011 Att 3

**Maritime Link - NS Block (On-peak)****(Same for all ML cases - Base Load, Low Load, High and Low Sensitivities)**

| <b>GWh</b>   | <b>2017</b> | <b>2018-2040</b> |
|--------------|-------------|------------------|
| Jan          | 0           | 76               |
| Feb          | 0           | 69               |
| Mar          | 0           | 76               |
| Apr          | 0           | 74               |
| May          | 0           | 76               |
| Jun          | 0           | 74               |
| Jul          | 0           | 76               |
| Aug          | 0           | 76               |
| Sep          | 0           | 74               |
| Oct          | 76          | 76               |
| Nov          | 74          | 74               |
| Dec          | 76          | 76               |
| <b>Total</b> | <b>226</b>  | <b>895</b>       |

**Maritime Link - Supplemental Energy (Off-peak)****(Same for all ML cases - Base Load, Low Load, High and Low Sensitivities)**

| <b>GWh</b>   | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023-2040</b> |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|
| Jan          | 0           | 49          | 49          | 49          | 49          | 49          | 0                |
| Feb          | 0           | 45          | 45          | 46          | 45          | 45          | 0                |
| Mar          | 0           | 49          | 49          | 49          | 49          | 49          | 0                |
| Apr          | 0           | 0           | 0           | 0           | 0           | 0           | 0                |
| May          | 0           | 0           | 0           | 0           | 0           | 0           | 0                |
| Jun          | 0           | 0           | 0           | 0           | 0           | 0           | 0                |
| Jul          | 0           | 0           | 0           | 0           | 0           | 0           | 0                |
| Aug          | 0           | 0           | 0           | 0           | 0           | 0           | 0                |
| Sep          | 0           | 0           | 0           | 0           | 0           | 0           | 0                |
| Oct          | 0           | 0           | 0           | 0           | 0           | 0           | 0                |
| Nov          | 48          | 48          | 48          | 48          | 48          | 0           | 0                |
| Dec          | 49          | 49          | 49          | 49          | 49          | 0           | 0                |
| <b>Total</b> | <b>97</b>   | <b>240</b>  | <b>240</b>  | <b>242</b>  | <b>240</b>  | <b>143</b>  | <b>0</b>         |

Synapse IR-011 Attachment 4

**Maritime Link Base Load - Maritime Link Economy Energy**

| <b>GWh</b>   | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> | <b>2025</b> | <b>2026</b> | <b>2027</b> | <b>2028</b> | <b>2029</b> | <b>2030</b> | <b>2031</b> | <b>2032</b> | <b>2033</b> | <b>2034</b> | <b>2035</b> | <b>2036</b> | <b>2037</b> | <b>2038</b> | <b>2039</b> | <b>2040</b> |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Jan          | 0           | 0           | 0           | 26          | 28          | 28          | 29          | 30          | 67          | 71          | 86          | 78          | 82          | 82          | 110         | 84          | 88          | 91          | 100         | 133         | 112         | 123         | 130         | 136         | 143         | 146         |
| Feb          | 0           | 0           | 0           | 62          | 69          | 55          | 71          | 70          | 109         | 105         | 115         | 116         | 118         | 116         | 125         | 130         | 131         | 135         | 133         | 133         | 133         | 137         | 133         | 133         | 133         | 138         |
| Mar          | 0           | 0           | 0           | 97          | 97          | 97          | 97          | 97          | 145         | 145         | 145         | 145         | 145         | 145         | 146         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         |
| Apr          | 0           | 0           | 0           | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 141         | 141         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         |
| May          | 0           | 0           | 0           | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 147         | 147         | 147         | 147         | 146         | 147         | 147         | 147         | 147         | 147         | 147         |
| Jun          | 0           | 0           | 0           | 140         | 140         | 140         | 140         | 140         | 140         | 140         | 140         | 140         | 140         | 141         | 141         | 142         | 142         | 141         | 141         | 141         | 142         | 142         | 142         | 142         | 142         | 142         |
| Jul          | 0           | 0           | 0           | 105         | 103         | 110         | 115         | 114         | 119         | 127         | 136         | 138         | 143         | 142         | 146         | 122         | 127         | 133         | 147         | 147         | 130         | 147         | 147         | 147         | 147         | 147         |
| Aug          | 0           | 0           | 0           | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 146         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         |
| Sep          | 0           | 0           | 0           | 142         | 135         | 135         | 135         | 135         | 136         | 136         | 136         | 136         | 137         | 137         | 138         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         |
| Oct          | 0           | 0           | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 147         | 146         | 146         | 146         | 146         | 147         | 146         | 146         | 146         | 147         |
| Nov          | 0           | 0           | 92          | 89          | 88          | 88          | 89          | 134         | 133         | 134         | 134         | 134         | 134         | 134         | 135         | 139         | 139         | 139         | 139         | 140         | 139         | 139         | 140         | 140         | 140         | 140         |
| Dec          | 0           | 0           | 44          | 47          | 47          | 48          | 50          | 91          | 97          | 102         | 110         | 113         | 117         | 118         | 132         | 121         | 126         | 131         | 142         | 146         | 136         | 145         | 146         | 147         | 147         | 147         |
| <b>Total</b> | <b>0</b>    | <b>0</b>    | <b>282</b>  | <b>1288</b> | <b>1289</b> | <b>1281</b> | <b>1307</b> | <b>1392</b> | <b>1529</b> | <b>1541</b> | <b>1583</b> | <b>1583</b> | <b>1598</b> | <b>1598</b> | <b>1653</b> | <b>1608</b> | <b>1625</b> | <b>1641</b> | <b>1672</b> | <b>1710</b> | <b>1664</b> | <b>1706</b> | <b>1709</b> | <b>1717</b> | <b>1724</b> | <b>1732</b> |

**Maritime Link Low Load - Maritime Link Economy Energy**

| <b>GWh</b>   | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> | <b>2025</b> | <b>2026</b> | <b>2027</b> | <b>2028</b> | <b>2029</b> | <b>2030</b> | <b>2031</b> | <b>2032</b> | <b>2033</b> | <b>2034</b> | <b>2035</b> | <b>2036</b> | <b>2037</b> | <b>2038</b> | <b>2039</b> | <b>2040</b> |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Jan          | 0           | 0           | 0           | 19          | 22          | 3           | 2           | 1           | 4           | 3           | 1           | 1           | 0           | 0           | 28          | 25          | 20          | 18          | 18          | 19          | 19          | 20          | 20          | 20          | 20          | 20          |
| Feb          | 0           | 0           | 0           | 53          | 62          | 5           | 10          | 8           | 21          | 10          | 37          | 33          | 29          | 16          | 69          | 65          | 56          | 31          | 54          | 55          | 57          | 39          | 59          | 59          | 59          | 39          |
| Mar          | 0           | 0           | 0           | 98          | 98          | 95          | 95          | 94          | 143         | 146         | 145         | 145         | 145         | 145         | 145         | 144         | 144         | 144         | 144         | 144         | 144         | 144         | 144         | 144         | 144         | 144         |
| Apr          | 0           | 0           | 0           | 142         | 142         | 133         | 140         | 141         | 140         | 139         | 138         | 138         | 137         | 136         | 136         | 134         | 132         | 131         | 132         | 130         | 132         | 131         | 131         | 131         | 132         | 132         |
| May          | 0           | 0           | 0           | 147         | 147         | 146         | 146         | 145         | 145         | 144         | 144         | 144         | 144         | 141         | 140         | 138         | 127         | 127         | 132         | 137         | 136         | 136         | 136         | 136         | 136         | 136         |
| Jun          | 0           | 0           | 0           | 141         | 133         | 84          | 80          | 78          | 77          | 111         | 108         | 105         | 104         | 101         | 101         | 99          | 90          | 89          | 91          | 93          | 95          | 96          | 97          | 97          | 97          | 97          |
| Jul          | 0           | 0           | 0           | 96          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          | 95          |
| Aug          | 0           | 0           | 0           | 147         | 147         | 145         | 145         | 145         | 144         | 143         | 147         | 147         | 147         | 147         | 147         | 147         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 146         |
| Sep          | 0           | 0           | 0           | 142         | 142         | 127         | 127         | 126         | 125         | 124         | 122         | 120         | 119         | 117         | 117         | 133         | 132         | 131         | 131         | 131         | 132         | 131         | 131         | 131         | 131         | 132         |
| Oct          | 0           | 0           | 147         | 147         | 147         | 140         | 139         | 139         | 138         | 145         | 144         | 144         | 144         | 143         | 143         | 143         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         |
| Nov          | 0           | 0           | 94          | 92          | 92          | 85          | 84          | 126         | 126         | 125         | 123         | 121         | 119         | 118         | 116         | 114         | 128         | 127         | 127         | 128         | 128         | 128         | 128         | 127         | 127         | 128         |
| Dec          | 0           | 0           | 40          | 39          | 39          | 24          | 22          | 41          | 41          | 41          | 40          | 37          | 35          | 33          | 45          | 44          | 55          | 55          | 58          | 60          | 64          | 67          | 68          | 68          | 68          | 68          |
| <b>Total</b> | <b>0</b>    | <b>0</b>    | <b>281</b>  | <b>1264</b> | <b>1268</b> | <b>1081</b> | <b>1085</b> | <b>1138</b> | <b>1197</b> | <b>1224</b> | <b>1245</b> | <b>1230</b> | <b>1217</b> | <b>1192</b> | <b>1282</b> | <b>1280</b> | <b>1269</b> | <b>1237</b> | <b>1271</b> | <b>1278</b> | <b>1290</b> | <b>1275</b> | <b>1296</b> | <b>1296</b> | <b>1297</b> | <b>1278</b> |



**Maritime Link Base Load, High Power and Gas Price Sensitivity - Maritime Link Economy Energy**

| GWh          | 2015     | 2016     | 2017       | 2018        | 2019        | 2020        | 2021        | 2022        | 2023        | 2024        | 2025        | 2026        | 2027        | 2028        | 2029        | 2030        | 2031        | 2032        | 2033        | 2034        | 2035        | 2036        | 2037        | 2038        | 2039        | 2040        |
|--------------|----------|----------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Jan          | 0        | 0        | 0          | 48          | 50          | 50          | 50          | 51          | 85          | 88          | 91          | 97          | 100         | 104         | 119         | 145         | 147         | 147         | 147         | 147         | 145         | 145         | 146         | 146         | 147         | 147         |
| Feb          | 0        | 0        | 0          | 62          | 65          | 50          | 65          | 65          | 98          | 88          | 100         | 103         | 105         | 101         | 120         | 133         | 133         | 138         | 133         | 133         | 133         | 138         | 133         | 133         | 133         | 138         |
| Mar          | 0        | 0        | 0          | 93          | 93          | 94          | 93          | 85          | 132         | 135         | 136         | 137         | 138         | 143         | 146         | 146         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         |
| Apr          | 0        | 0        | 0          | 142         | 141         | 142         | 141         | 141         | 141         | 141         | 141         | 141         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         |
| May          | 0        | 0        | 0          | 146         | 145         | 145         | 141         | 117         | 121         | 124         | 125         | 130         | 135         | 146         | 146         | 146         | 146         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         |
| Jun          | 0        | 0        | 0          | 97          | 93          | 91          | 92          | 89          | 93          | 95          | 97          | 103         | 109         | 129         | 141         | 141         | 141         | 141         | 140         | 140         | 142         | 142         | 142         | 142         | 141         | 141         |
| Jul          | 0        | 0        | 0          | 105         | 106         | 108         | 106         | 102         | 107         | 113         | 118         | 120         | 122         | 131         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         |
| Aug          | 0        | 0        | 0          | 144         | 145         | 145         | 145         | 143         | 142         | 143         | 143         | 144         | 144         | 147         | 146         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         |
| Sep          | 0        | 0        | 0          | 130         | 129         | 127         | 127         | 124         | 125         | 126         | 127         | 127         | 128         | 136         | 138         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         |
| Oct          | 0        | 0        | 146        | 146         | 146         | 145         | 145         | 144         | 144         | 144         | 144         | 145         | 145         | 146         | 146         | 147         | 146         | 145         | 145         | 145         | 147         | 147         | 146         | 146         | 147         | 147         |
| Nov          | 0        | 0        | 77         | 74          | 71          | 71          | 69          | 97          | 102         | 107         | 110         | 112         | 115         | 127         | 134         | 135         | 139         | 139         | 139         | 140         | 140         | 140         | 140         | 140         | 140         | 140         |
| Dec          | 0        | 0        | 26         | 33          | 36          | 37          | 37          | 64          | 70          | 74          | 77          | 83          | 87          | 95          | 130         | 146         | 146         | 146         | 146         | 146         | 146         | 147         | 147         | 147         | 147         | 147         |
| <b>Total</b> | <b>0</b> | <b>0</b> | <b>250</b> | <b>1219</b> | <b>1220</b> | <b>1204</b> | <b>1212</b> | <b>1222</b> | <b>1362</b> | <b>1378</b> | <b>1407</b> | <b>1442</b> | <b>1469</b> | <b>1546</b> | <b>1655</b> | <b>1717</b> | <b>1723</b> | <b>1727</b> | <b>1723</b> | <b>1724</b> | <b>1726</b> | <b>1730</b> | <b>1726</b> | <b>1727</b> | <b>1727</b> | <b>1732</b> |

**Maritime Link Base Load, Low Power and Gas Price Sensitivity - Maritime Link Economy Energy**

| GWh          | 2015     | 2016     | 2017       | 2018        | 2019        | 2020        | 2021        | 2022        | 2023        | 2024        | 2025        | 2026        | 2027        | 2028        | 2029        | 2030        | 2031        | 2032        | 2033        | 2034        | 2035        | 2036        | 2037        | 2038        | 2039        | 2040        |
|--------------|----------|----------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Jan          | 0        | 0        | 0          | 41          | 46          | 45          | 46          | 46          | 100         | 102         | 104         | 106         | 107         | 109         | 110         | 84          | 82          | 84          | 89          | 96          | 86          | 94          | 88          | 106         | 119         | 133         |
| Feb          | 0        | 0        | 0          | 84          | 85          | 85          | 84          | 84          | 129         | 108         | 133         | 133         | 133         | 137         | 133         | 133         | 133         | 137         | 133         | 133         | 132         | 136         | 132         | 132         | 133         | 138         |
| Mar          | 0        | 0        | 0          | 98          | 98          | 97          | 98          | 98          | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         |
| Apr          | 0        | 0        | 0          | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         |
| May          | 0        | 0        | 0          | 147         | 147         | 147         | 103         | 143         | 143         | 143         | 143         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         |
| Jun          | 0        | 0        | 0          | 101         | 101         | 137         | 99          | 99          | 98          | 99          | 142         | 142         | 142         | 142         | 141         | 142         | 142         | 142         | 142         | 142         | 141         | 142         | 142         | 142         | 142         | 142         |
| Jul          | 0        | 0        | 0          | 98          | 106         | 147         | 111         | 110         | 112         | 145         | 97          | 97          | 97          | 98          | 99          | 147         | 147         | 147         | 147         | 147         | 126         | 147         | 144         | 133         | 147         | 147         |
| Aug          | 0        | 0        | 0          | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         |
| Sep          | 0        | 0        | 0          | 141         | 141         | 141         | 141         | 141         | 141         | 141         | 141         | 142         | 142         | 142         | 140         | 141         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         | 142         |
| Oct          | 0        | 0        | 147        | 147         | 147         | 146         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         | 147         |
| Nov          | 0        | 0        | 92         | 92          | 92          | 88          | 88          | 133         | 134         | 139         | 139         | 139         | 139         | 139         | 139         | 139         | 139         | 139         | 139         | 139         | 140         | 140         | 140         | 140         | 140         | 140         |
| Dec          | 0        | 0        | 96         | 96          | 96          | 95          | 96          | 145         | 146         | 146         | 146         | 146         | 146         | 146         | 146         | 141         | 139         | 141         | 145         | 146         | 130         | 137         | 142         | 144         | 146         | 147         |
| <b>Total</b> | <b>0</b> | <b>0</b> | <b>335</b> | <b>1333</b> | <b>1348</b> | <b>1418</b> | <b>1302</b> | <b>1436</b> | <b>1585</b> | <b>1605</b> | <b>1627</b> | <b>1633</b> | <b>1635</b> | <b>1640</b> | <b>1638</b> | <b>1659</b> | <b>1655</b> | <b>1663</b> | <b>1668</b> | <b>1675</b> | <b>1629</b> | <b>1669</b> | <b>1660</b> | <b>1670</b> | <b>1700</b> | <b>1719</b> |

|   | 2015           | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | 2024           | 2025           | 2026           | 2027           | 2028           | 2029           | 2030           | 2031           | 2032           | 2033           | 2034           | 2035           | 2036           | 2037           | 2038           | 2039             | 2040             |  |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|--|
| <b>Maritime Link Base Load</b>              |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |  |
| Total Unit Cost                             | 472,514        | 487,564        | 430,930        | 327,121        | 336,969        | 355,925        | 364,973        | 378,815        | 389,038        | 398,912        | 408,722        | 419,724        | 430,481        | 442,141        | 445,828        | 468,286        | 477,171        | 491,604        | 508,413        | 527,666        | 564,516        | 580,312        | 607,756        | 638,207        | 663,395          | 696,755          |  |
| Renewables IPPs                             | 119,579        | 130,682        | 140,588        | 150,760        | 150,804        | 151,178        | 150,896        | 150,943        | 129,842        | 130,219        | 129,941        | 129,992        | 130,044        | 130,425        | 130,151        | 130,207        | 130,263        | 130,649        | 130,379        | 130,439        | 130,500        | 130,890        | 130,626        | 130,690        | 130,756          | 131,152          |  |
| Maritime Link (Base Block and Supplemental) | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0                | 0                |  |
| Imports *                                   | 0              | 0              | 52,251         | 90,078         | 92,690         | 95,791         | 100,670        | 107,154        | 120,638        | 124,036        | 133,142        | 136,165        | 141,018        | 142,870        | 156,748        | 155,652        | 160,576        | 165,393        | 177,011        | 189,022        | 182,346        | 194,718        | 201,125        | 206,799        | 220,212          | 229,781          |  |
| <b>Total Operating Cost (k\$)</b>           | <b>592,093</b> | <b>618,246</b> | <b>623,768</b> | <b>567,959</b> | <b>580,464</b> | <b>602,893</b> | <b>616,539</b> | <b>636,912</b> | <b>639,517</b> | <b>653,166</b> | <b>671,805</b> | <b>685,881</b> | <b>701,543</b> | <b>715,436</b> | <b>732,727</b> | <b>754,145</b> | <b>768,010</b> | <b>787,646</b> | <b>815,803</b> | <b>847,127</b> | <b>877,362</b> | <b>905,919</b> | <b>939,506</b> | <b>975,696</b> | <b>1,014,363</b> | <b>1,057,688</b> |  |
| <b>Capital Costs</b>                        |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |  |
| Maritime Link                               | 0              | 0              | 22,033         | 155,703        | 160,477        | 151,105        | 155,948        | 146,514        | 143,824        | 141,413        | 139,011        | 146,145        | 135,823        | 147,261        | 146,988        | 145,738        | 153,641        | 142,802        | 141,185        | 139,471        | 137,673        | 146,337        | 133,855        | 131,858        | 129,802          | 127,698          |  |
| Combined Cycles Units                       | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 49,593         | 48,696         | 47,798         | 46,900         | 46,002         | 99,860         | 97,971         | 96,082         | 94,193         | 92,304           | 90,415           |  |
| <b>Total Capital Costs (k\$)</b>            | <b>0</b>       | <b>0</b>       | <b>22,033</b>  | <b>155,703</b> | <b>160,477</b> | <b>151,105</b> | <b>155,948</b> | <b>146,514</b> | <b>143,824</b> | <b>141,413</b> | <b>139,011</b> | <b>146,145</b> | <b>135,823</b> | <b>147,261</b> | <b>146,988</b> | <b>195,331</b> | <b>202,337</b> | <b>190,600</b> | <b>188,085</b> | <b>185,473</b> | <b>237,533</b> | <b>244,308</b> | <b>229,937</b> | <b>226,051</b> | <b>222,107</b>   | <b>218,113</b>   |  |
| Total Operating Cost NPV (k\$)              | \$9,030,492    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |  |
| Total Capital Cost NPV (k\$)                | \$1,745,566    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |  |
| Total Planning Period NPV (k\$)             | \$10,776,058   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |  |

\* Imports over the NS-NB Tieline and surplus energy from Maritime Link

|                                      | 2015           | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | 2024           | 2025           | 2026           | 2027           | 2028           | 2029           | 2030           | 2031           | 2032           | 2033           | 2034           | 2035             | 2036             | 2037             | 2038             | 2039             | 2040             |
|--------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Other Import Base Load</b>        |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |
| Total Unit Cost                      | 472,514        | 487,564        | 423,295        | 398,639        | 368,079        | 326,077        | 332,129        | 343,824        | 351,144        | 360,981        | 371,389        | 378,763        | 389,687        | 400,357        | 408,952        | 408,744        | 417,277        | 424,861        | 442,282        | 463,253        | 484,035          | 502,656          | 524,877          | 544,349          | 573,281          | 606,500          |
| Renewables IPPs                      | 119,579        | 130,682        | 146,119        | 173,106        | 173,374        | 173,975        | 173,923        | 174,201        | 153,334        | 153,948        | 153,908        | 154,200        | 154,496        | 155,123        | 155,097        | 155,404        | 155,714        | 156,356        | 156,344        | 156,665        | 156,990          | 157,647          | 157,652          | 157,988          | 158,328          | 159,002          |
| Other Import (Contract Energy)       | 0              | 0              | 15,955         | 65,988         | 70,830         | 76,639         | 81,298         | 86,975         | 89,650         | 91,710         | 93,300         | 95,178         | 97,094         | 99,319         | 101,041        | 103,074        | 105,148        | 107,557        | 109,421        | 111,622        | 113,867          | 116,476          | 118,492          | 120,875          | 123,306          | 126,129          |
| Imports *                            | 0              | 0              | 60,390         | 122,639        | 124,468        | 129,998        | 137,174        | 141,867        | 147,726        | 150,241        | 158,709        | 164,167        | 167,366        | 170,122        | 177,956        | 202,297        | 206,667        | 216,247        | 226,109        | 241,177        | 256,354          | 264,102          | 268,689          | 275,845          | 282,751          | 299,822          |
| <b>Total Operating Cost (k\$)</b>    | <b>592,093</b> | <b>618,246</b> | <b>645,760</b> | <b>660,372</b> | <b>676,751</b> | <b>706,689</b> | <b>724,522</b> | <b>746,867</b> | <b>741,854</b> | <b>756,879</b> | <b>777,306</b> | <b>792,307</b> | <b>808,642</b> | <b>824,921</b> | <b>843,046</b> | <b>869,519</b> | <b>884,807</b> | <b>905,021</b> | <b>934,136</b> | <b>972,718</b> | <b>1,011,246</b> | <b>1,040,881</b> | <b>1,069,710</b> | <b>1,099,057</b> | <b>1,137,666</b> | <b>1,191,452</b> |
| <b>Capital Costs</b>                 |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |
| Other Import (Contract Energy)       | 0              | 0              | 8,118          | 56,906         | 57,450         | 57,845         | 58,103         | 58,234         | 58,249         | 58,158         | 57,968         | 57,687         | 57,324         | 56,883         | 56,373         | 55,797         | 55,162         | 54,471         | 53,731         | 52,944         | 52,114           | 51,245           | 50,340           | 49,401           | 48,432           | 47,435           |
| Combustion Turbines & Combined Cycle | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 6,997          | 14,007         | 13,751         | 13,495         | 65,868         | 64,660         | 63,451           | 62,243           | 61,034           | 59,826           | 58,617           | 57,409           |
| <b>Total Capital Costs (k\$)</b>     | <b>0</b>       | <b>0</b>       | <b>8,118</b>   | <b>56,906</b>  | <b>57,450</b>  | <b>57,845</b>  | <b>58,103</b>  | <b>58,234</b>  | <b>58,249</b>  | <b>58,158</b>  | <b>57,968</b>  | <b>57,687</b>  | <b>57,324</b>  | <b>56,883</b>  | <b>63,369</b>  | <b>69,804</b>  | <b>68,913</b>  | <b>67,967</b>  | <b>119,599</b> | <b>117,604</b> | <b>115,565</b>   | <b>113,488</b>   | <b>111,374</b>   | <b>109,227</b>   | <b>107,050</b>   | <b>104,844</b>   |
| Total Operating Cost NPV (k\$)       | \$10,182,719   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |
| Total Capital Cost NPV (k\$)         | \$730,867      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |
| Total Planning Period NPV (k\$)      | \$10,913,585   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |

\* Imports over the upgraded NS-NB Tieline.

| Indigenous Wind Base Load            | 2015           | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | 2024           | 2025           | 2026           | 2027           | 2028           | 2029           | 2030           | 2031           | 2032           | 2033           | 2034           | 2035           | 2036             | 2037             | 2038             | 2039             | 2040             |
|--------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|------------------|
| Total Unit Cost                      | 472,514        | 487,564        | 468,799        | 475,766        | 455,986        | 484,207        | 495,206        | 500,050        | 523,439        | 538,292        | 572,792        | 570,193        | 586,775        | 603,365        | 644,613        | 688,063        | 714,460        | 748,422        | 803,392        | 829,003        | 811,816        | 850,067          | 871,289          | 922,540          | 964,092          | 1,022,131        |
| Renewables IPPs                      | 119,579        | 130,682        | 140,588        | 150,760        | 165,759        | 166,431        | 166,454        | 166,813        | 146,029        | 146,730        | 146,782        | 147,170        | 147,566        | 150,398        | 150,523        | 150,986        | 151,458        | 152,268        | 152,430        | 155,296        | 155,856        | 156,753          | 159,515          | 160,157          | 160,814          | 161,810          |
| Incremental Wind                     | 0              | 0              | 0              | 0              | 1,527          | 1,563          | 1,588          | 1,620          | 1,653          | 1,692          | 1,719          | 1,754          | 1,789          | 2,028          | 2,061          | 2,102          | 2,145          | 2,196          | 2,231          | 2,497          | 2,547          | 2,607            | 2,884            | 2,942            | 3,001            | 3,072            |
| Imports *                            | 0              | 0              | 42,012         | 43,339         | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0                | 0                | 0                | 0                | 0                |
| Less Exports *                       | 0              | 0              | 3,082          | 2,083          | 7,606          | 9,011          | 6,956          | 6,594          | 5,710          | 2,217          | 235            | 7,896          | 597            | 372            | 212            | 184            | 206            | 193            | 172            | 212            | 575            | 397              | 375              | 294              | 261              | 249              |
| <b>Total Operating Cost (k\$)</b>    | <b>592,093</b> | <b>618,246</b> | <b>648,316</b> | <b>667,782</b> | <b>615,666</b> | <b>643,191</b> | <b>656,292</b> | <b>670,889</b> | <b>665,411</b> | <b>684,497</b> | <b>721,058</b> | <b>711,220</b> | <b>735,532</b> | <b>755,619</b> | <b>796,986</b> | <b>840,967</b> | <b>867,857</b> | <b>902,692</b> | <b>958,081</b> | <b>986,584</b> | <b>969,644</b> | <b>1,009,030</b> | <b>1,033,312</b> | <b>1,086,344</b> | <b>1,127,646</b> | <b>1,186,764</b> |
| <b>Capital Costs</b>                 |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |
| Incremental Wind                     | 0              | 0              | 0              | 0              | 55,217         | -4,185         | 63,150         | 97,643         | 114,337        | 121,382        | 123,199        | 122,182        | 119,629        | 123,978        | 111,819        | 117,171        | 117,789        | 115,841        | 112,503        | 117,123        | 103,251        | 109,153          | 118,998          | 106,780          | 110,015          | 45,435           |
| Combustion Turbine & Combined Cycles | 0              | 0              | 0              | 0              | 82,098         | 68,470         | 68,757         | 68,885         | 68,867         | 68,713         | 68,436         | 113,861        | 112,535        | 111,113        | 109,602        | 137,308        | 135,110        | 132,842        | 130,511        | 128,121        | 180,432        | 176,947          | 173,417          | 169,845          | 201,250          | 196,970          |
| <b>Total Capital Costs (k\$)</b>     | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>137,315</b> | <b>64,285</b>  | <b>131,907</b> | <b>166,528</b> | <b>183,203</b> | <b>190,096</b> | <b>191,635</b> | <b>236,043</b> | <b>232,164</b> | <b>235,091</b> | <b>221,421</b> | <b>254,479</b> | <b>252,898</b> | <b>248,683</b> | <b>243,014</b> | <b>245,244</b> | <b>283,683</b> | <b>286,101</b>   | <b>292,415</b>   | <b>276,625</b>   | <b>311,265</b>   | <b>242,405</b>   |
| Total Operating Cost NPV (k\$)       | \$9,720,584    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |
| Total Capital Cost NPV (k\$)         | \$1,922,137    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |
| Total Planning Period NPV (k\$)      | \$11,642,720   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |

\* Imports and Exports over the NS-NB Tieline.

|   | 2015           | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | 2024           | 2025           | 2026           | 2027           | 2028           | 2029           | 2030           | 2031           | 2032           | 2033           | 2034           | 2035           | 2036           | 2037           | 2038           | 2039           | 2040           |  |  |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--|--|
| <b>ML Low Load</b>                          |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |  |
| Total Unit Cost                             | 465,585        | 478,463        | 427,406        | 324,389        | 332,917        | 293,935        | 297,627        | 306,947        | 317,612        | 314,454        | 319,166        | 321,966        | 325,755        | 330,611        | 321,299        | 327,016        | 330,440        | 336,988        | 341,432        | 348,439        | 355,891        | 364,989        | 370,581        | 377,904        | 385,269        | 393,530        |  |  |
| Renewables IPPs                             | 119,579        | 130,682        | 140,588        | 150,760        | 150,804        | 155,203        | 154,931        | 154,988        | 130,376        | 130,763        | 130,496        | 130,558        | 130,622        | 131,015        | 130,752        | 130,820        | 130,888        | 131,287        | 131,030        | 131,103        | 131,177        | 131,581        | 131,330        | 131,409        | 131,489        | 131,899        |  |  |
| Maritime Link (Base Block and Supplemental) | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              |  |  |
| Imports *                                   | 0              | 0              | 46,000         | 82,710         | 84,682         | 65,456         | 68,250         | 71,755         | 75,988         | 82,553         | 86,072         | 86,386         | 86,974         | 85,827         | 96,529         | 98,868         | 98,346         | 96,146         | 101,566        | 104,565        | 109,391        | 110,001        | 114,556        | 116,781        | 119,097        | 119,969        |  |  |
| <b>Total Operating Cost (k\$)</b>           | <b>585,164</b> | <b>609,145</b> | <b>613,993</b> | <b>557,858</b> | <b>568,403</b> | <b>514,593</b> | <b>520,808</b> | <b>533,691</b> | <b>523,976</b> | <b>527,771</b> | <b>535,734</b> | <b>538,910</b> | <b>543,351</b> | <b>547,453</b> | <b>548,581</b> | <b>556,704</b> | <b>559,674</b> | <b>564,420</b> | <b>574,028</b> | <b>584,106</b> | <b>596,459</b> | <b>606,571</b> | <b>616,467</b> | <b>626,094</b> | <b>635,855</b> | <b>645,399</b> |  |  |
| <b>Capital Costs</b>                        |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |  |
| Maritime Link                               | 0              | 0              | 22,033         | 155,703        | 160,477        | 151,105        | 155,948        | 146,514        | 143,824        | 141,413        | 139,011        | 146,145        | 135,823        | 147,261        | 146,988        | 145,738        | 153,641        | 142,802        | 141,185        | 139,471        | 137,673        | 146,337        | 133,855        | 131,858        | 129,802        | 127,698        |  |  |
| <b>Total Capital Costs (k\$)</b>            | <b>0</b>       | <b>0</b>       | <b>22,033</b>  | <b>155,703</b> | <b>160,477</b> | <b>151,105</b> | <b>155,948</b> | <b>146,514</b> | <b>143,824</b> | <b>141,413</b> | <b>139,011</b> | <b>146,145</b> | <b>135,823</b> | <b>147,261</b> | <b>146,988</b> | <b>145,738</b> | <b>153,641</b> | <b>142,802</b> | <b>141,185</b> | <b>139,471</b> | <b>137,673</b> | <b>146,337</b> | <b>133,855</b> | <b>131,858</b> | <b>129,802</b> | <b>127,698</b> |  |  |
| Total Operating Cost NPV (k\$)              | \$7,416,326    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |  |
| Total Capital Cost NPV (k\$)                | \$1,525,928    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |  |
| Total Planning Period NPV (k\$)             | \$8,942,254    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |  |

\* Imports over the NS-NB Tieline and surplus energy from Maritime Link

|                                   | 2015           | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | 2024           | 2025           | 2026           | 2027           | 2028           | 2029           | 2030           | 2031           | 2032           | 2033           | 2034           | 2035           | 2036           | 2037           | 2038           | 2039           | 2040           |
|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Of Low Load</b>                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| Total Unit Cost                   | 465,585        | 478,463        | 414,028        | 297,408        | 300,266        | 277,454        | 282,132        | 292,900        | 292,124        | 292,740        | 294,991        | 299,153        | 304,474        | 310,603        | 301,365        | 303,769        | 306,094        | 313,756        | 315,341        | 324,971        | 330,972        | 331,123        | 339,695        | 350,750        | 356,086        | 364,498        |
| Renewables IPPs                   | 119,579        | 130,682        | 146,119        | 173,106        | 173,374        | 178,000        | 177,958        | 178,246        | 153,868        | 154,492        | 154,463        | 154,766        | 155,074        | 155,713        | 155,699        | 156,017        | 156,339        | 156,994        | 156,995        | 157,329        | 157,667        | 158,338        | 158,356        | 158,707        | 159,061        | 159,749        |
| Other Import (Contract Energy)    | 0              | 0              | 15,955         | 65,988         | 70,830         | 76,639         | 81,298         | 86,975         | 89,650         | 91,710         | 93,300         | 95,178         | 97,094         | 99,319         | 101,041        | 103,074        | 105,148        | 107,557        | 109,421        | 111,622        | 113,867        | 116,476        | 118,492        | 120,875        | 123,306        | 126,129        |
| Imports *                         | 0              | 0              | 57,930         | 112,915        | 119,022        | 87,161         | 89,872         | 87,294         | 93,321         | 96,033         | 102,257        | 101,051        | 100,157        | 97,751         | 108,211        | 113,162        | 114,615        | 110,489        | 117,611        | 118,734        | 124,902        | 131,857        | 133,703        | 132,966        | 136,860        | 137,287        |
| <b>Total Operating Cost (k\$)</b> | <b>585,164</b> | <b>609,145</b> | <b>634,032</b> | <b>649,416</b> | <b>663,492</b> | <b>619,254</b> | <b>631,260</b> | <b>645,415</b> | <b>628,963</b> | <b>634,975</b> | <b>645,011</b> | <b>650,148</b> | <b>656,798</b> | <b>663,385</b> | <b>666,315</b> | <b>676,022</b> | <b>682,196</b> | <b>688,796</b> | <b>699,368</b> | <b>712,656</b> | <b>727,408</b> | <b>737,793</b> | <b>750,246</b> | <b>763,297</b> | <b>775,314</b> | <b>787,663</b> |
| <b>Capital Costs</b>              |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| Other Import (Contract Energy)    | 0              | 0              | 8,118          | 56,906         | 57,450         | 57,845         | 58,103         | 58,234         | 58,249         | 58,158         | 57,968         | 57,687         | 57,324         | 56,883         | 56,373         | 55,797         | 55,162         | 54,471         | 53,731         | 52,944         | 52,114         | 51,245         | 50,340         | 49,401         | 48,432         | 47,435         |
| <b>Total Capital Costs (k\$)</b>  | <b>0</b>       | <b>0</b>       | <b>8,118</b>   | <b>56,906</b>  | <b>57,450</b>  | <b>57,845</b>  | <b>58,103</b>  | <b>58,234</b>  | <b>58,249</b>  | <b>58,158</b>  | <b>57,968</b>  | <b>57,687</b>  | <b>57,324</b>  | <b>56,883</b>  | <b>56,373</b>  | <b>55,797</b>  | <b>55,162</b>  | <b>54,471</b>  | <b>53,731</b>  | <b>52,944</b>  | <b>52,114</b>  | <b>51,245</b>  | <b>50,340</b>  | <b>49,401</b>  | <b>48,432</b>  | <b>47,435</b>  |
| Total Operating Cost NPV (k\$)    | 58,602,058     |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| Total Capital Cost NPV (k\$)      | 585,072        |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| Total Planning Period NPV (k\$)   | 59,187,130     |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |

\* Imports over the upgraded N5-NB Tieline.

| Indigenous Wind Low Load             | 2015           | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | 2024           | 2025           | 2026           | 2027           | 2028           | 2029           | 2030           | 2031           | 2032           | 2033           | 2034           | 2035           | 2036           | 2037           | 2038           | 2039           | 2040           |
|--------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Total Unit Cost                      | 465,585        | 478,463        | 466,288        | 463,134        | 484,285        | 427,635        | 437,783        | 445,314        | 451,845        | 460,072        | 468,917        | 473,060        | 480,069        | 472,709        | 480,174        | 520,516        | 515,603        | 525,186        | 533,993        | 545,105        | 595,852        | 613,418        | 628,324        | 641,368        | 653,254        | 659,609        |
| Renewables IPPs                      | 119,579        | 130,682        | 140,588        | 150,760        | 159,599        | 164,174        | 164,081        | 164,322        | 139,896        | 140,474        | 140,401        | 140,662        | 140,927        | 141,526        | 141,474        | 141,756        | 142,044        | 142,664        | 142,636        | 142,941        | 143,251        | 143,897        | 143,893        | 144,223        | 144,559        | 145,231        |
| Incremental Wind                     | 0              | 0              | 0              | 0              | 770            | 788            | 801            | 817            | 833            | 853            | 867            | 884            | 902            | 923            | 938            | 957            | 976            | 1,000          | 1,016          | 1,036          | 1,056          | 1,082          | 1,099          | 1,121          | 1,144          | 1,171          |
| Imports *                            | 0              | 0              | 35,975         | 41,563         | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| Less Exports *                       | 0              | 0              | 4,957          | 3,917          | 3,926          | 15,185         | 18,123         | 19,947         | 20,092         | 22,256         | 21,224         | 22,010         | 23,755         | 3,737          | 133            | 35,039         | 16,783         | 30,409         | 16,389         | 19,341         | 51,328         | 54,051         | 52,645         | 52,308         | 48,298         | 41,547         |
| <b>Total Operating Cost (k\$)</b>    | <b>585,164</b> | <b>609,145</b> | <b>637,893</b> | <b>651,539</b> | <b>640,729</b> | <b>577,413</b> | <b>584,541</b> | <b>590,506</b> | <b>572,482</b> | <b>579,144</b> | <b>588,961</b> | <b>592,596</b> | <b>598,143</b> | <b>611,421</b> | <b>632,453</b> | <b>628,190</b> | <b>641,840</b> | <b>638,442</b> | <b>661,255</b> | <b>669,741</b> | <b>688,832</b> | <b>704,346</b> | <b>720,671</b> | <b>734,604</b> | <b>750,659</b> | <b>764,464</b> |
| <b>Capital Costs</b>                 |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| Incremental Wind                     | 0              | 0              | 0              | 0              | 30,838         | -4,073         | 35,686         | 56,095         | 66,018         | 70,256         | 71,413         | 70,901         | 69,483         | 67,575         | 65,401         | 63,083         | 60,687         | 58,249         | 55,788         | 53,314         | 50,833         | 48,349         | 45,863         | 43,376         | 36,659         | -4,842         |
| Combustion Turbine & Combined Cycles | 0              | 0              | 0              | 0              | 49,165         | 41,370         | 41,488         | 41,516         | 41,461         | 41,329         | 41,126         | 40,859         | 40,532         | 40,150         | 39,717         | 88,831         | 87,412         | 85,953         | 84,458         | 82,929         | 136,125        | 133,547        | 130,943        | 128,314        | 125,664        | 122,994        |
| <b>Total Capital Costs (k\$)</b>     | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>80,003</b>  | <b>37,297</b>  | <b>77,174</b>  | <b>97,612</b>  | <b>107,479</b> | <b>111,585</b> | <b>112,540</b> | <b>111,760</b> | <b>110,015</b> | <b>107,725</b> | <b>105,118</b> | <b>151,915</b> | <b>148,099</b> | <b>144,202</b> | <b>140,245</b> | <b>136,243</b> | <b>186,958</b> | <b>181,896</b> | <b>176,806</b> | <b>171,690</b> | <b>162,323</b> | <b>118,152</b> |
| Total Operating Cost NPV (k\$)       | \$8,185,364    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| Total Capital Cost NPV (k\$)         | \$1,078,842    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| Total Planning Period NPV (k\$)      | \$9,264,206    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |

\* Imports and Exports over the NS-NB Tieline.

| <b>ML Base Load, High Power &amp; Gas Prices</b> | <b>2015</b>    | <b>2016</b>    | <b>2017</b>    | <b>2018</b>    | <b>2019</b>    | <b>2020</b>    | <b>2021</b>    | <b>2022</b>    | <b>2023</b>    | <b>2024</b>    | <b>2025</b>    | <b>2026</b>    | <b>2027</b>    | <b>2028</b>    | <b>2029</b>    | <b>2030</b>    | <b>2031</b>    | <b>2032</b>    | <b>2033</b>    | <b>2034</b>    | <b>2035</b>      | <b>2036</b>      | <b>2037</b>      | <b>2038</b>      | <b>2039</b>      | <b>2040</b>      |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Total Unit Cost                                  | 495,689        | 518,655        | 460,678        | 372,775        | 385,226        | 405,362        | 412,811        | 434,269        | 445,419        | 455,849        | 469,103        | 479,802        | 490,225        | 487,181        | 474,768        | 476,338        | 497,979        | 519,969        | 557,267        | 594,195        | 639,384          | 677,334          | 717,226          | 754,467          | 804,687          | 861,882          |
| Renewables IPPs                                  | 119,579        | 130,682        | 140,588        | 150,760        | 150,804        | 151,178        | 150,896        | 150,943        | 129,842        | 130,219        | 129,941        | 129,992        | 130,044        | 130,425        | 130,151        | 130,207        | 130,263        | 130,649        | 130,379        | 130,439        | 130,500          | 130,890          | 130,626          | 130,690          | 130,756          | 131,152          |
| Maritime Link (Base Block and Supplemental)      | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0                | 0                | 0                | 0                | 0                | 0                |
| Imports *  | 0              | 0              | 58,183         | 88,489         | 91,374         | 94,635         | 99,415         | 102,327        | 118,951        | 123,322        | 131,107        | 139,582        | 146,846        | 163,521        | 198,437        | 234,276        | 242,124        | 248,195        | 252,746        | 259,214        | 261,783          | 268,280          | 273,027          | 280,037          | 287,423          | 297,452          |
| <b>Total Operating Cost (k\$)</b>                | <b>615,269</b> | <b>649,337</b> | <b>659,449</b> | <b>612,024</b> | <b>627,404</b> | <b>651,174</b> | <b>663,122</b> | <b>687,538</b> | <b>694,211</b> | <b>709,390</b> | <b>730,151</b> | <b>749,375</b> | <b>767,116</b> | <b>781,127</b> | <b>803,356</b> | <b>840,821</b> | <b>870,366</b> | <b>898,813</b> | <b>940,392</b> | <b>983,848</b> | <b>1,031,667</b> | <b>1,076,503</b> | <b>1,120,879</b> | <b>1,165,195</b> | <b>1,222,866</b> | <b>1,290,486</b> |
| <b>Capital Costs</b>                             |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |
| Maritime Link                                    | 0              | 0              | 22,033         | 155,703        | 160,477        | 151,105        | 155,948        | 146,514        | 143,824        | 141,413        | 139,011        | 146,145        | 135,823        | 147,261        | 146,988        | 145,738        | 153,641        | 142,802        | 141,185        | 139,471        | 137,673          | 146,337          | 133,855          | 131,858          | 129,802          | 127,698          |
| Combined Cycles Units                            |                |                | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 49,593         | 48,696         | 47,798         | 46,900         | 46,002         | 99,860           | 97,971           | 96,082           | 94,193           | 92,304           | 90,415           |
| <b>Total Capital Costs (k\$)</b>                 | <b>0</b>       | <b>0</b>       | <b>22,033</b>  | <b>155,703</b> | <b>160,477</b> | <b>151,105</b> | <b>155,948</b> | <b>146,514</b> | <b>143,824</b> | <b>141,413</b> | <b>139,011</b> | <b>146,145</b> | <b>135,823</b> | <b>147,261</b> | <b>146,988</b> | <b>195,331</b> | <b>202,337</b> | <b>190,600</b> | <b>188,085</b> | <b>185,473</b> | <b>237,533</b>   | <b>244,308</b>   | <b>229,937</b>   | <b>226,051</b>   | <b>222,107</b>   | <b>218,113</b>   |
| Total Operating Cost NPV (k\$)                   | \$9,960,675    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |
| Total Capital Cost NPV (k\$)                     | \$1,745,566    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |
| Total Planning Period NPV (k\$)                  | \$11,706,242   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |

\* Imports over the NS-NB Tieline and surplus energy from Maritime Link



| OI Base Load, High Power & Gas Prices | 2015           | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | 2024           | 2025           | 2026           | 2027           | 2028           | 2029           | 2030           | 2031           | 2032             | 2033             | 2034             | 2035             | 2036             | 2037             | 2038             | 2039             | 2040             |
|---------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Total Unit Cost                       | 495,689        | 518,655        | 464,910        | 386,348        | 396,382        | 414,484        | 426,325        | 443,199        | 453,291        | 463,192        | 478,196        | 489,101        | 499,629        | 492,587        | 476,533        | 462,952        | 460,119        | 462,085          | 465,961          | 471,036          | 503,618          | 535,634          | 616,609          | 611,368          | 662,331          | 721,884          |
| Renewables IPPs                       | 119,579        | 130,682        | 146,119        | 173,106        | 173,374        | 173,975        | 173,923        | 174,201        | 153,334        | 153,948        | 153,908        | 154,200        | 154,496        | 155,123        | 155,097        | 155,404        | 155,714        | 156,356          | 156,344          | 156,665          | 156,990          | 157,647          | 157,652          | 157,988          | 158,328          | 159,002          |
| Other Import (Contract Energy)        | 0              | 0              | 15,955         | 65,988         | 70,830         | 76,639         | 81,298         | 86,975         | 89,650         | 91,710         | 93,300         | 95,178         | 97,094         | 99,319         | 101,041        | 103,074        | 105,148        | 107,557          | 109,421          | 111,622          | 113,867          | 116,476          | 118,492          | 120,875          | 123,306          | 126,129          |
| Imports *                             | 0              | 0              | 60,322         | 92,568         | 99,400         | 105,545        | 108,493        | 106,581        | 114,542        | 118,538        | 125,754        | 133,920        | 141,223        | 163,240        | 197,132        | 240,790        | 261,022        | 276,902          | 309,240          | 339,671          | 353,240          | 362,226          | 370,711          | 376,909          | 389,782          | 405,782          |
| <b>Total Operating Cost (k\$)</b>     | <b>615,269</b> | <b>649,337</b> | <b>687,307</b> | <b>718,009</b> | <b>739,985</b> | <b>770,643</b> | <b>790,038</b> | <b>810,956</b> | <b>810,816</b> | <b>827,387</b> | <b>851,158</b> | <b>872,398</b> | <b>892,441</b> | <b>910,269</b> | <b>929,804</b> | <b>962,219</b> | <b>982,003</b> | <b>1,002,899</b> | <b>1,040,966</b> | <b>1,078,995</b> | <b>1,127,714</b> | <b>1,171,983</b> | <b>1,263,464</b> | <b>1,267,140</b> | <b>1,333,947</b> | <b>1,412,796</b> |
| <b>Capital Costs</b>                  |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Other Import (Contract Energy)        | 0              | 0              | 8,118          | 56,906         | 57,450         | 57,845         | 58,103         | 58,234         | 58,249         | 58,158         | 57,968         | 57,687         | 57,324         | 56,883         | 56,373         | 55,797         | 55,162         | 54,471           | 53,731           | 52,944           | 52,114           | 51,245           | 50,340           | 49,401           | 48,432           | 47,435           |
| Combustion Turbines & Combined Cycle  | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 6,997          | 14,007         | 13,751         | 13,495           | 65,868           | 64,660           | 63,451           | 62,243           | 61,034           | 59,826           | 58,617           | 57,409           |
| <b>Total Capital Costs (k\$)</b>      | <b>0</b>       | <b>0</b>       | <b>8,118</b>   | <b>56,906</b>  | <b>57,450</b>  | <b>57,845</b>  | <b>58,103</b>  | <b>58,234</b>  | <b>58,249</b>  | <b>58,158</b>  | <b>57,968</b>  | <b>57,687</b>  | <b>57,324</b>  | <b>56,883</b>  | <b>63,369</b>  | <b>69,804</b>  | <b>68,913</b>  | <b>67,967</b>    | <b>119,599</b>   | <b>117,604</b>   | <b>115,565</b>   | <b>113,488</b>   | <b>111,374</b>   | <b>109,227</b>   | <b>107,050</b>   | <b>104,844</b>   |
| Total Operating Cost NPV (k\$)        | \$11,184,998   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Total Capital Cost NPV (k\$)          | \$730,867      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Total Planning Period NPV (k\$)       | \$11,915,865   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |                  |                  |                  |

\* Imports over the upgraded NS-NB Tieline.

| Indigenous Wind Base Load, High Power & Gas Prices |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|  | 2015           | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | 2024           | 2025           | 2026           | 2027           | 2028           | 2029           | 2030             | 2031             | 2032             | 2033             | 2034             | 2035             | 2036             | 2037             | 2038             | 2039             | 2040             |
| Total Unit Cost                                    | 495,689        | 518,655        | 494,520        | 506,005        | 488,977        | 518,879        | 531,002        | 546,223        | 564,309        | 584,213        | 650,754        | 667,107        | 714,274        | 763,381        | 834,243        | 930,940          | 968,903          | 1,002,881        | 1,101,929        | 1,120,821        | 1,074,469        | 1,129,090        | 1,147,555        | 1,216,114        | 1,297,988        | 1,378,074        |
| Renewables IPPs                                    | 119,579        | 130,682        | 140,588        | 150,760        | 165,759        | 166,431        | 166,454        | 166,813        | 146,029        | 146,730        | 146,782        | 147,170        | 147,566        | 150,398        | 150,523        | 150,986          | 151,458          | 152,268          | 152,430          | 155,296          | 155,856          | 156,753          | 159,515          | 160,157          | 160,814          | 161,810          |
| Incremental Wind                                   | 0              | 0              | 0              | 0              | 1,527          | 1,563          | 1,588          | 1,620          | 1,653          | 1,692          | 1,719          | 1,754          | 1,789          | 2,028          | 2,061          | 2,102            | 2,145            | 2,196            | 2,231            | 2,497            | 2,547            | 2,607            | 2,884            | 2,942            | 3,001            | 3,072            |
| Imports *  | 0              | 0              | 51,910         | 56,392         | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                |
| Less Exports *                                     | 0              | 0              | 4,931          | 4,382          | 9,123          | 10,827         | 11,215         | 12,264         | 11,449         | 297            | 247            | 316            | 296            | 357            | 336            | 218              | 215              | 214              | 189              | 242              | 334              | 316              | 372              | 361              | 315              | 296              |
| <b>Total Operating Cost (k\$)</b>                  | <b>615,269</b> | <b>649,337</b> | <b>682,086</b> | <b>708,775</b> | <b>647,140</b> | <b>676,047</b> | <b>687,830</b> | <b>702,392</b> | <b>700,541</b> | <b>732,338</b> | <b>799,008</b> | <b>815,716</b> | <b>863,332</b> | <b>915,451</b> | <b>986,491</b> | <b>1,083,810</b> | <b>1,122,291</b> | <b>1,157,131</b> | <b>1,256,401</b> | <b>1,278,372</b> | <b>1,232,538</b> | <b>1,288,135</b> | <b>1,309,582</b> | <b>1,378,852</b> | <b>1,461,489</b> | <b>1,542,661</b> |
| <b>Capital Costs</b>                               |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Incremental Wind                                   | 0              | 0              | 0              | 0              | 55,217         | -4,185         | 63,150         | 97,643         | 114,337        | 121,382        | 123,199        | 122,182        | 119,629        | 123,978        | 111,819        | 117,171          | 117,789          | 115,841          | 112,503          | 117,123          | 103,251          | 109,153          | 118,998          | 106,780          | 110,015          | 45,435           |
| Combustion Turbine & Combined Cycles               | 0              | 0              | 0              | 0              | 82,098         | 68,470         | 68,757         | 68,885         | 68,867         | 68,713         | 68,436         | 113,861        | 112,535        | 111,113        | 109,602        | 137,308          | 135,110          | 132,842          | 130,511          | 128,121          | 180,432          | 176,947          | 173,417          | 169,845          | 201,250          | 196,970          |
| <b>Total Capital Costs (k\$)</b>                   | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>137,315</b> | <b>64,285</b>  | <b>131,907</b> | <b>166,528</b> | <b>183,203</b> | <b>190,096</b> | <b>191,635</b> | <b>236,043</b> | <b>232,164</b> | <b>235,091</b> | <b>221,421</b> | <b>254,479</b>   | <b>252,898</b>   | <b>248,683</b>   | <b>243,014</b>   | <b>245,244</b>   | <b>283,683</b>   | <b>286,101</b>   | <b>292,415</b>   | <b>276,625</b>   | <b>311,265</b>   | <b>242,405</b>   |
| Total Operating Cost NPV (k\$)                     | \$11,158,565   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Total Capital Cost NPV (k\$)                       | \$1,922,137    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Total Planning Period NPV (k\$)                    | \$13,080,702   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |

\* Imports and Exports over the NS-NB Tieline.

|   | 2015           | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | 2024           | 2025           | 2026           | 2027           | 2028           | 2029           | 2030           | 2031           | 2032           | 2033           | 2034           | 2035           | 2036           | 2037           | 2038           | 2039           | 2040           |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>ML Base Load, Low Power &amp; Gas Prices</b> |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| Total Unit Cost                                 | 407,536        | 422,161        | 411,907        | 313,973        | 320,138        | 330,892        | 351,767        | 356,680        | 367,376        | 376,342        | 386,610        | 396,431        | 407,285        | 417,485        | 429,504        | 420,208        | 432,469        | 445,236        | 462,681        | 482,531        | 492,580        | 507,745        | 528,789        | 546,969        | 563,144        | 577,933        |
| Renewables IPPs                                 | 119,579        | 130,682        | 140,588        | 150,760        | 150,804        | 151,178        | 150,896        | 150,943        | 129,842        | 130,219        | 129,941        | 129,992        | 130,044        | 130,425        | 130,151        | 130,207        | 130,263        | 130,649        | 130,379        | 130,439        | 130,500        | 130,890        | 130,626        | 130,690        | 130,756        | 131,152        |
| Maritime Link (Base Block and Supplemental)     | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| Imports *                                       | 0              | 0              | 50,675         | 82,957         | 85,398         | 92,503         | 87,361         | 99,412         | 110,573        | 113,822        | 121,999        | 125,384        | 128,512        | 130,629        | 134,225        | 136,719        | 138,966        | 141,707        | 146,993        | 150,026        | 146,405        | 153,561        | 156,950        | 162,103        | 170,913        | 185,162        |
| <b>Total Operating Cost (k\$)</b>               | <b>527,116</b> | <b>552,843</b> | <b>603,169</b> | <b>547,689</b> | <b>556,340</b> | <b>574,572</b> | <b>590,024</b> | <b>607,035</b> | <b>607,791</b> | <b>620,383</b> | <b>638,550</b> | <b>651,807</b> | <b>665,841</b> | <b>678,539</b> | <b>693,880</b> | <b>687,134</b> | <b>701,698</b> | <b>717,592</b> | <b>740,053</b> | <b>762,996</b> | <b>769,485</b> | <b>792,197</b> | <b>816,365</b> | <b>839,762</b> | <b>864,813</b> | <b>894,247</b> |
| <b>Capital Costs</b>                            |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| Maritime Link                                   | 0              | 0              | 22,033         | 155,703        | 160,477        | 151,105        | 155,948        | 146,514        | 143,824        | 141,413        | 139,011        | 146,145        | 135,823        | 147,261        | 146,988        | 145,738        | 153,641        | 142,802        | 141,185        | 139,471        | 137,673        | 146,337        | 133,855        | 131,858        | 129,802        | 127,698        |
| Combined Cycles Units                           | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 49,593         | 48,696         | 47,798         | 46,900         | 46,002         | 99,860         | 97,971         | 96,082         | 94,193         | 92,304         | 90,415         |
| <b>Total Capital Costs (k\$)</b>                | <b>0</b>       | <b>0</b>       | <b>22,033</b>  | <b>155,703</b> | <b>160,477</b> | <b>151,105</b> | <b>155,948</b> | <b>146,514</b> | <b>143,824</b> | <b>141,413</b> | <b>139,011</b> | <b>146,145</b> | <b>135,823</b> | <b>147,261</b> | <b>146,988</b> | <b>195,331</b> | <b>202,337</b> | <b>190,600</b> | <b>188,085</b> | <b>185,473</b> | <b>237,533</b> | <b>244,308</b> | <b>229,937</b> | <b>226,051</b> | <b>222,107</b> | <b>218,113</b> |
| Total Operating Cost NPV (k\$)                  | \$8,360,729    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| Total Capital Cost NPV (k\$)                    | \$1,745,566    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| Total Planning Period NPV (k\$)                 | \$10,106,295   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |

\* Imports over the NS-NB Tieline and surplus energy from Maritime Link

| OI Base Load, Low Power & Gas Prices | 2015           | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | 2024           | 2025           | 2026           | 2027           | 2028           | 2029           | 2030           | 2031           | 2032           | 2033           | 2034           | 2035           | 2036           | 2037           | 2038             | 2039             | 2040             |
|--------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|
| Total Unit Cost                      | 407,536        | 422,161        | 407,417        | 286,254        | 294,017        | 308,258        | 324,548        | 334,340        | 337,590        | 353,167        | 352,629        | 354,178        | 362,626        | 380,062        | 386,933        | 413,333        | 419,363        | 441,137        | 423,480        | 441,285        | 459,805        | 477,782        | 495,302        | 503,591          | 510,707          | 526,894          |
| Renewables IPPs                      | 119,579        | 130,682        | 146,119        | 173,106        | 173,374        | 173,975        | 173,923        | 174,201        | 153,334        | 153,948        | 153,908        | 154,200        | 154,496        | 155,123        | 155,097        | 155,404        | 155,714        | 156,356        | 156,344        | 156,665        | 156,990        | 157,647        | 157,652        | 157,988          | 158,328          | 159,002          |
| Other Import (Contract Energy)       | 0              | 0              | 15,955         | 65,988         | 70,830         | 76,639         | 81,298         | 86,975         | 89,650         | 91,710         | 93,300         | 95,178         | 97,094         | 99,319         | 101,041        | 103,074        | 105,148        | 107,557        | 109,421        | 111,622        | 113,867        | 116,476        | 118,492        | 120,875          | 123,306          | 126,129          |
| Imports *                            | 0              | 0              | 59,421         | 116,772        | 119,195        | 126,440        | 124,628        | 129,242        | 139,365        | 133,904        | 151,921        | 160,720        | 165,656        | 163,942        | 172,249        | 167,641        | 175,621        | 171,514        | 181,885        | 186,611        | 193,660        | 198,948        | 206,778        | 222,951          | 244,203          | 256,470          |
| <b>Total Operating Cost (k\$)</b>    | <b>527,116</b> | <b>552,843</b> | <b>628,912</b> | <b>642,120</b> | <b>657,416</b> | <b>685,312</b> | <b>704,397</b> | <b>724,758</b> | <b>719,939</b> | <b>732,729</b> | <b>751,758</b> | <b>764,276</b> | <b>779,871</b> | <b>798,446</b> | <b>815,320</b> | <b>839,451</b> | <b>855,846</b> | <b>876,563</b> | <b>871,130</b> | <b>896,183</b> | <b>924,322</b> | <b>950,853</b> | <b>978,224</b> | <b>1,005,405</b> | <b>1,036,544</b> | <b>1,067,495</b> |
| <b>Capital Costs</b>                 |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |
| Other Import (Contract Energy)       | 0              | 0              | 8,118          | 56,906         | 57,450         | 57,845         | 58,103         | 58,234         | 58,249         | 58,158         | 57,968         | 57,687         | 57,324         | 56,883         | 56,373         | 55,797         | 55,162         | 54,471         | 53,731         | 52,944         | 52,114         | 51,245         | 50,340         | 49,401           | 48,432           | 47,435           |
| Combustion Turbines & Combined Cycle | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 6,997          | 14,007         | 13,751         | 13,495         | 65,868         | 64,660         | 63,451         | 62,243         | 61,034         | 59,826           | 58,617           | 57,409           |
| <b>Total Capital Costs (k\$)</b>     | <b>0</b>       | <b>0</b>       | <b>8,118</b>   | <b>56,906</b>  | <b>57,450</b>  | <b>57,845</b>  | <b>58,103</b>  | <b>58,234</b>  | <b>58,249</b>  | <b>58,158</b>  | <b>57,968</b>  | <b>57,687</b>  | <b>57,324</b>  | <b>56,883</b>  | <b>63,369</b>  | <b>69,804</b>  | <b>68,913</b>  | <b>67,967</b>  | <b>119,599</b> | <b>117,604</b> | <b>115,565</b> | <b>113,488</b> | <b>111,374</b> | <b>109,227</b>   | <b>107,050</b>   | <b>104,844</b>   |
| Total Operating Cost NPV (k\$)       |                | \$9,662,832    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |
| Total Capital Cost NPV (k\$)         |                | \$730,867      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |
| Total Planning Period NPV (k\$)      |                | \$10,393,699   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                  |                  |                  |

\* Imports over the upgraded NS-NB Tieline.

**Indigenous Wind Base Load, Low Power &**

|                                      | 2015           | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | 2024           | 2025           | 2026           | 2027           | 2028           | 2029           | 2030           | 2031           | 2032           | 2033           | 2034           | 2035           | 2036           | 2037           | 2038           | 2039           | 2040           |  |
|--------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--|
| <b>Gas Prices</b>                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |
| Total Unit Cost                      | 407,536        | 422,161        | 450,572        | 452,951        | 437,166        | 455,712        | 470,752        | 483,702        | 497,478        | 510,362        | 541,241        | 522,434        | 535,208        | 532,930        | 563,785        | 588,145        | 604,934        | 629,593        | 661,388        | 673,281        | 645,100        | 669,914        | 684,644        | 710,968        | 723,901        | 757,396        |  |
| Renewables IPPs                      | 119,579        | 130,682        | 140,588        | 150,760        | 165,759        | 166,431        | 166,454        | 166,813        | 146,029        | 146,730        | 146,782        | 147,170        | 147,566        | 150,398        | 150,523        | 150,986        | 151,458        | 152,268        | 152,430        | 155,296        | 155,856        | 156,753        | 159,515        | 160,157        | 160,814        | 161,810        |  |
| Incremental Wind                     | 0              | 0              | 0              | 0              | 1,527          | 1,563          | 1,588          | 1,620          | 1,653          | 1,692          | 1,719          | 1,754          | 1,789          | 2,028          | 2,061          | 2,102          | 2,145          | 2,196          | 2,231          | 2,497          | 2,547          | 2,607          | 2,884          | 2,942          | 3,001          | 3,072          |  |
| Imports *                            | 0              | 0              | 38,482         | 39,293         | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              |  |
| Less Exports *                       | 0              | 0              | 484            | 519            | 7,282          | 6,644          | 7,248          | 7,786          | 6,716          | 6,656          | 998            | 10,054         | 9,346          | 5,354          | 701            | 1,275          | 983            | 622            | 303            | 276            | 2,506          | 1,820          | 1,838          | 875            | 1,710          | 448            |  |
| <b>Total Operating Cost (k\$)</b>    | <b>527,116</b> | <b>552,843</b> | <b>629,157</b> | <b>642,485</b> | <b>597,169</b> | <b>617,061</b> | <b>631,546</b> | <b>644,349</b> | <b>638,444</b> | <b>652,128</b> | <b>688,744</b> | <b>661,304</b> | <b>675,217</b> | <b>680,002</b> | <b>715,668</b> | <b>739,958</b> | <b>757,554</b> | <b>783,435</b> | <b>815,747</b> | <b>830,797</b> | <b>800,897</b> | <b>827,454</b> | <b>845,205</b> | <b>873,192</b> | <b>886,007</b> | <b>921,831</b> |  |
| <b>Capital Costs</b>                 |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |
| Incremental Wind                     | 0              | 0              | 0              | 0              | 55,217         | -4,185         | 63,150         | 97,643         | 114,337        | 121,382        | 123,199        | 122,182        | 119,629        | 123,978        | 111,819        | 117,171        | 117,789        | 115,841        | 112,503        | 117,123        | 103,251        | 109,153        | 118,998        | 106,780        | 110,015        | 45,435         |  |
| Combustion Turbine & Combined Cycles | 0              | 0              | 0              | 0              | 82,098         | 68,470         | 68,757         | 68,885         | 68,867         | 68,713         | 68,436         | 113,861        | 112,535        | 111,113        | 109,602        | 137,308        | 135,110        | 132,842        | 130,511        | 128,121        | 180,432        | 176,947        | 173,417        | 169,845        | 201,250        | 196,970        |  |
| <b>Total Capital Costs (k\$)</b>     | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>137,315</b> | <b>64,285</b>  | <b>131,907</b> | <b>166,528</b> | <b>183,203</b> | <b>190,096</b> | <b>191,635</b> | <b>236,043</b> | <b>232,164</b> | <b>235,091</b> | <b>221,421</b> | <b>254,479</b> | <b>252,898</b> | <b>246,683</b> | <b>243,014</b> | <b>245,244</b> | <b>283,683</b> | <b>286,101</b> | <b>292,415</b> | <b>276,625</b> | <b>311,265</b> | <b>242,405</b> |  |
| Total Operating Cost NPV (k\$)       |                | 58,809,017     |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |
| Total Capital Cost NPV (k\$)         |                | 51,922,137     |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |
| Total Planning Period NPV (k\$)      |                | 510,731,153    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |

\* Imports and Exports over the NS-NB Tieline.

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1 **Request IR-12:**

2  
3 **Reference: Appendix 6.03, Maritime Link Alternatives Study Input Assumptions and**  
4 **Application, page 117, Section 6.3 "Alternatives Analysis"**

5  
6 **Have any reviews or analyses been done of the input assumptions from recent integrated**  
7 **resource plans and load forecasts in comparison to the input assumptions used in the**  
8 **Maritime Link analyses? If so please provide that material, and discuss.**

9  
10 **Response IR-12:**

11  
12 The main areas of difference between the 2009 IRP update and this Application are as follows:

- 13  
14 • Load Forecast (included on page 6 of Appendix 6.03 of the Application)
- 15  
16 • DSM assumption – As revised by Efficiency Nova Scotia to 2032 and extended to the  
17 end of the 2040 planning period by NS Power (included on page 7 of Appendix 6.03 of  
18 the Application).
- 19  
20 • Nova Scotia Renewable Electricity Standard Amendments – A link to the Amended  
21 Regulations is provided:
- 22  
23 <http://gov.ns.ca/just/regulations/regs/elecnew.htm>
- 24  
25 • Air emission hard caps – Known changes to Hg targets for 2020 are used as are changes  
26 under the proposed equivalency agreement for CO<sub>2</sub> emissions out to 2030. Forecasted  
27 changes to SO<sub>2</sub>, NO<sub>x</sub> and Hg emissions based on ongoing discussions with the Federal  
28 and Provincial Governments related to Base Level Industrial Emission Requirements

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1 (BLIERS) for the period out to 2030 are used. Minor reductions were forecasted in all  
2 air emissions from 2030 levels for the period extending to 2040.

3  
4 A link to the Nova Scotia Greenhouse Gas Regulations is provided:

5  
6 <http://www.gov.ns.ca/just/regulations/regs/envgreenhouse.htm>

7  
8 A link to the Nova Scotia Air Quality Regulations is provided:

9  
10 <http://www.gov.ns.ca/just/regulations/regs/envairqt.htm>

11  
12 A link to the proposed Greenhouse Gas Equivalency Agreement is provided:

13  
14 [http://www.ec.gc.ca/lcpe-cepa/1ADECED-33F7-45D3-8F7B-69A361029E75/Agreement-](http://www.ec.gc.ca/lcpe-cepa/1ADECED-33F7-45D3-8F7B-69A361029E75/Agreement-NE_NS-Agreement_eng.pdf)  
15 [NE\\_NS-Agreement\\_eng.pdf](http://www.ec.gc.ca/lcpe-cepa/1ADECED-33F7-45D3-8F7B-69A361029E75/Agreement-NE_NS-Agreement_eng.pdf)

- 16  
17 • Unit Retirements – In this application NS Power forecasted unit retirements based on  
18 efforts to manage planning reserve margins in the range of 20 percent as other forms of  
19 generation or firm imports were added to the system to comply with environmental  
20 requirements.
- 21  
22 • Fuel and Energy Price Forecasts – Fuel price forecasts have been updated to more  
23 current forecasts as referenced in the Application.
- 24  
25 • Existing and Forecasted Renewable Generation – Since 2009, NS Power has added to  
26 the renewable generation on the electric power system and further additions are under  
27 construction or are in planning.
- 28

Maritime Link Project (NSUARB ML-2013-01)  
NSPML Responses to Synapse Information Requests

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1 Please refer to the Table below which provides post-2001 renewable generation in Nova  
2 Scotia, which includes renewable generation added to the power system since the 2009  
3 IRP Update.

4

5 **Inventory of Post-2001 Renewable Generation in Nova Scotia**

| <b>Renewable Generation Project</b>                         | <b>In Service Year</b> | <b>Annual GWh</b> | <b>Installed Capacity (MW)</b> |
|---|------------------------|-------------------|--------------------------------|
| <b>NSPI Owned Wind</b>                                      |                        |                   |                                |
| Grand Etang & Little Brook                                  | 2002                   | 3.3               | 1.3                            |
| Nuttby Mountain   | 2010                   | 140.3             | 50.6                           |
| Digby Neck  | 2010                   | 110.1             | 30.0                           |
| <b>Total NSPI Owned Wind</b>                                |                        | <b>253.8</b>      | <b>81.9</b>                    |
| <b>Post-2001 Renewable Independent Power Producer (IPP)</b> |                        |                   |                                |
| Pubnico   | 2004 - 2005            | 88.7              | 30.6                           |
| Lingan  | 2006 - 2007            | 41.9              | 14.0                           |
| Glace Bay   | 2005                   | 2.5               | 0.8                            |
| Donkin  | 2005                   | 2.5               | 0.8                            |
| Tiverton  | 2006                   | 1.5               | 0.9                            |
| Springhill  | 2005 - 2006            | 5.2               | 2.1                            |
| Higgins Mountain  | 2007                   | 7.0               | 3.6                            |
| Goodwood  | 2005                   | 1.0               | 0.6                            |
| Brookfield  | 2005                   | 0.8               | 0.6                            |
| Fitzpatrick Mountain  | 2006                   | 4.0               | 1.6                            |
| Point Tupper 1  | 2006                   | 2.0               | 0.8                            |
| Digby (RESL)  | 2006                   | 2.0               | 0.8                            |
| Tatamagouche (Marshville/River John)                        | 2006                   | 1.5               | 0.8                            |
| Amherst (Sprott)  | 2012                   | 86.7              | 30.0                           |
| Dalhousie Mountain  | 2009                   | 168.0             | 51.0                           |
| Glen Dhu North  | 2011                   | 165.0             | 60.0                           |
| Maryvale  | 2010                   | 14.5              | 6.0                            |
| Point Tupper 3 Wind   | 2010                   | 66.2              | 22.0                           |
| Watts Section   | 2011                   | 4.3               | 1.5                            |
| Distribution Connected Wind                                 | 2013                   | 52.6              | 9.5                            |
| Halifax Landfill  | 2006                   | 9.0               | 2.0                            |
| <b>Total Post-2001 Renewable IPPs</b>                       |                        | <b>726.9</b>      | <b>240.0</b>                   |
| <b>Total - All Renewable Sources (excludes NSPI Hydro)</b>  |                        | <b>980.6</b>      | <b>321.9</b>                   |

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1 **Request IR-13:**

2  
3 **Reference: Appendix 6.03, Maritime Link Alternatives Study Input Assumptions, pages 3-7**  
4 **of 19**

5  
6 **(a) Please state how the Base Load and the Low Load scenarios compares to NSP's**  
7 **current forecast, and explain why NSPML believes that the "base load" forecast is**  
8 **the correct baseline to use for this analysis, rather than a forecast that includes**  
9 **future DSM. In particular, discuss why some intermediate path between the "with**  
10 **DSM" and "without DSM" trend was not used as a baseline.**

11  
12 **(b) Please explain overall methods employed for the Company's load forecasts by**  
13 **sector.**

14  
15 **(c) Please provide the basis for the following three key assumptions used to develop the**  
16 **Base Load case.**

17  
18 **(i) The growth of economic indicators was increased by 50% in the forecast**  
19 **models over the Low Load case**

20  
21 **(ii) The rate of growth in residential electric heating was increased by 1% every**  
22 **5 years**

23  
24 **(iii) Electric vehicles would grow to become 1% of annual auto sales in 10 years.**

25  
26 **(d) Please provide a table which lists and compares the above key assumptions for both**  
27 **the Base Load and the Low Load cases, along with the impact on sectorial electricity**  
28 **consumption in terms of annual percentage growth rate.**

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- 1 (e) Please provide a list of federal and provincial building codes and appliance  
2 standards that are used when constructing the Company's load forecast. Please also  
3 describe if or how the Company estimated the impact from each code and standard,  
4 and if or how it incorporated the impact in its load forecasts.  
5
- 6 (f) Please describe other key factors that the Company used to develop load forecasts, if  
7 any.  
8
- 9 (g) Please provide the Company's load forecast by residential, commercial, and  
10 industrial sectors separately, in terms of GWh and MW for both the Low Load and  
11 the Base Load cases.  
12
- 13 (h) Please provide the Company's forecast of incremental and cumulative OSM energy  
14 savings (in GWh) from 2015 through 2040 by residential, commercial, and  
15 industrial sector separately.  
16
- 17 (i) Please provide the Company's forecast of peak load reduction from OSM (in MW)  
18 from 2015 through 2040, by residential, commercial, and industrial sector  
19 separately.  
20
- 21 (j) Please explain how the Company derived 175 GWh savings for 2015 based on the  
22 ENSC plan for the savings for 2013 through 2015. Please indicate specific page  
23 numbers which contain the key data that the Company used to derive the 175 GWh  
24 savings.  
25
- 26 (k) Provide the original document referred to as "the long-term outlook provided by  
27 ENSC" for the savings for 2016 through 2032, and indicate specific page numbers,  
28 and tables, and/or figures being relied upon in the ENSC document to construct the  
29 energy savings for this time period.
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1 **(l) Please provide the basis for the Company's forecast for 2032 to 2040 "Assumed that**  
2 **DSM effects would be equal to load growth in low load case".**

3  
4 **(m) If DSM effects are different between the Base and Low Load cases, please provide**  
5 **DSM effects for the both cases.**

6

7 Response IR-13:

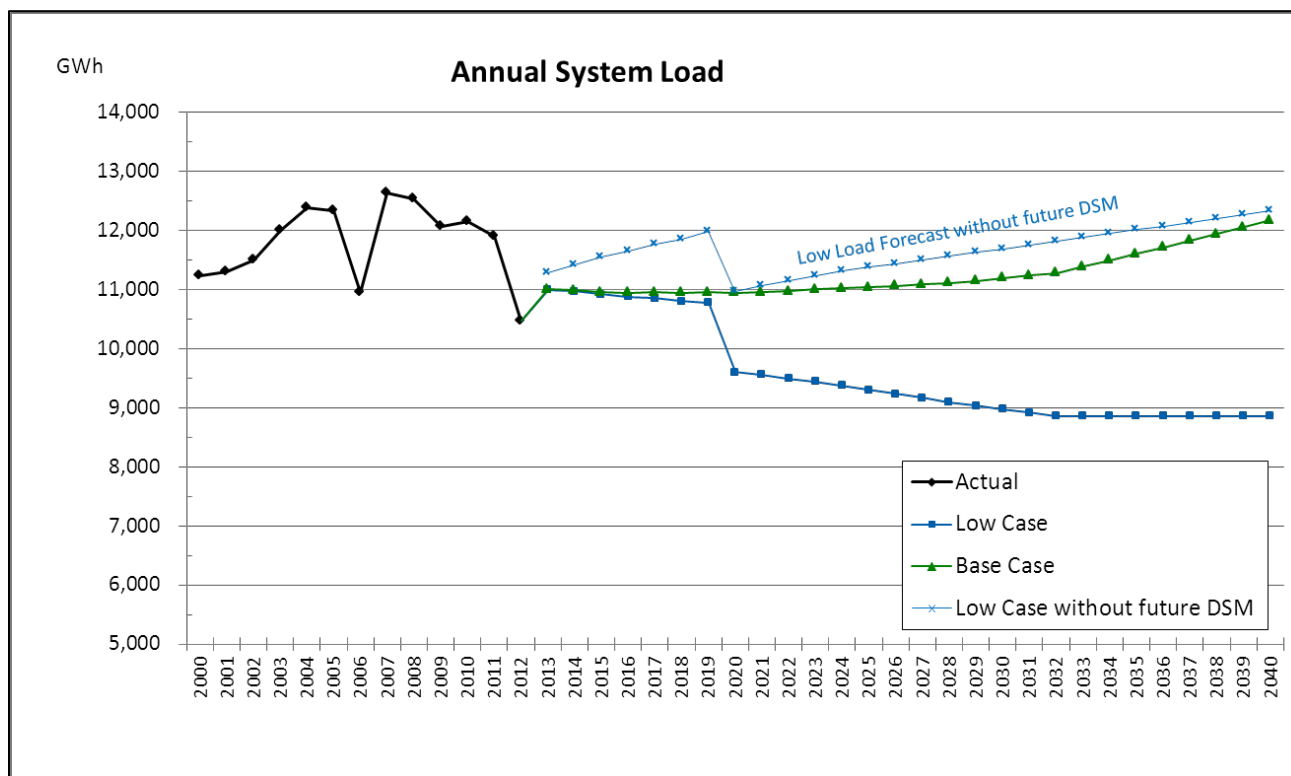
8

9 (a) For the purposes of the NSPML filing, the Port Hawkesbury paper mill was added to the  
10 GRA-Refresh forecast for the years 2013 to 2019 and this was considered the low case  
11 forecast.

12

13 For the purposes of the analysis, NSPML wanted to test the robustness of alternatives  
14 over a range of load scenarios over the long-term. The upperend of that range is referred  
15 to as base load and the low end is referred to as low load. The upper end reflects slightly  
16 more aggressive load growth with current DSM projections as well as the continued  
17 operation of Port Hawkesbury. The low end reflects less aggressive load growth with  
18 current DSM projections and the loss of the Port Hawkesbury load after 2019. The base  
19 load scenario is considered the appropriate baseline for this scenario because it is lower  
20 than the low case without future DSM assumptions even when Port Hawkesbury is  
21 assumed closed and therefore does represent an intermediate path between “with DSM”  
22 and “without DSM” (as shown is the figure below). When planning long-term to meet  
23 future compliance regulations that are based on load it is prudent to be on the  
24 conservative side of DSM assumptions because if they do not materialize then  
25 compliance is jeopardized.

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- (b) Please refer to GRA 2013 SR-02 Attachment 1 for details on how NS Power’s load forecast is developed by sector.
- (c) Please refer to CA IR-49 (b).
- (d) Please refer to CA IR-49 (b).
- (e) The impacts of codes and standards are in the DSM savings calculated by ENSC.
- (f) All key details on how the development of the load forecast are documented in GRA 2013 SR-02 Attachment 1 and CA-IR-49.

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1 (g) Please refer to NSUARB IR-61 Attachment 1 for a breakdown of the total energy  
2 requirement (GWh) by sector. Details for the forecasted MW by sector can be found in  
3 Attachment 1.

4  
5 (h-i) A detailed breakdown by sector of DSM savings is not available beyond 2015. All DSM  
6 savings on p.7 of Appendix 6.03 were applied to the net system requirement rather than  
7 by class.

8  
9 (j) The details in the below table detail how the Company derived 175 GWh savings for  
10 2015 based on the ENSC plan for the savings for 2013 through 2015.

11

| <b>Year</b> | <b>Source</b>                         | <b>Page Reference</b> | <b>DSM Savings (GWh)</b> | <b>Amount used in 2015 calculation (GWh)</b> |
|-------------|---------------------------------------|-----------------------|--------------------------|--|
| 2014        | Incremental Annual Net Energy Savings | 20                    | 137.5                    | 68.75  |
| 2014        | Estimated codes and standards savings | 22                    | 30.5                     | 15.25  |
| 2015        | Incremental Annual Net Energy Savings | 21                    | 137.7                    | 68.85  |
| 2015        | Estimated codes and standards savings | 22                    | 44.2                     | 22.1   |
| Total       |                                       |                       |                          | 174.95                                       |

12  
13 (k) The 2016 – 2032 long term outlook is available publicly in response to Multeese IR-6 (b)  
14 from ENSC’s application to the UARB for approval of its Demand Side Management  
15 Plan 2013 – 2015.

16  
17 (l) Please refer to CA-IR 54.  
18

Maritime Link Project (NSUARB ML-2013-01)  
NSPML Responses to Synapse Information Requests

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- 1 (m) The DSM impacts are the same for both cases.

Demand forecast (MW) by sector, low load case

| NSPML LOW |             |            |            |        |       | DSM MW | System Peak MW | Firm MW |
|-----------|-------------|------------|------------|--------|-------|--------|----------------|---------|
| Year      | Residential | Commercial | Industrial | Losses | Total |        |                |         |
| 2015      | 1,079       | 557        | 213        | 222    | 2,070 | -100   | 1,970          | 1,885   |
| 2016      | 1,091       | 562        | 214        | 224    | 2,091 | -129   | 1,962          | 1,877   |
| 2017      | 1,101       | 568        | 216        | 227    | 2,111 | -155   | 1,956          | 1,870   |
| 2018      | 1,108       | 573        | 218        | 229    | 2,128 | -182   | 1,946          | 1,860   |
| 2019      | 1,119       | 579        | 222        | 231    | 2,152 | -210   | 1,942          | 1,857   |
| 2020      | 1,130       | 585        | 225        | 234    | 2,174 | -240   | 1,934          | 1,849   |
| 2021      | 1,139       | 591        | 228        | 236    | 2,193 | -268   | 1,925          | 1,840   |
| 2022      | 1,146       | 596        | 229        | 238    | 2,208 | -296   | 1,913          | 1,827   |
| 2023      | 1,156       | 600        | 230        | 239    | 2,225 | -323   | 1,902          | 1,817   |
| 2024      | 1,163       | 605        | 230        | 241    | 2,239 | -351   | 1,889          | 1,803   |
| 2025      | 1,167       | 609        | 231        | 242    | 2,250 | -376   | 1,874          | 1,788   |
| 2026      | 1,171       | 614        | 232        | 243    | 2,261 | -401   | 1,860          | 1,775   |
| 2027      | 1,175       | 619        | 233        | 244    | 2,272 | -426   | 1,846          | 1,761   |
| 2028      | 1,180       | 623        | 234        | 246    | 2,283 | -451   | 1,832          | 1,746   |
| 2029      | 1,184       | 628        | 235        | 247    | 2,294 | -475   | 1,819          | 1,734   |
| 2030      | 1,188       | 633        | 236        | 248    | 2,305 | -498   | 1,807          | 1,722   |
| 2031      | 1,192       | 638        | 237        | 250    | 2,317 | -521   | 1,796          | 1,711   |
| 2032      | 1,197       | 643        | 238        | 251    | 2,328 | -544   | 1,784          | 1,698   |
| 2033      | 1,201       | 648        | 239        | 252    | 2,340 | -556   | 1,784          | 1,698   |
| 2034      | 1,206       | 653        | 240        | 254    | 2,352 | -569   | 1,784          | 1,698   |
| 2035      | 1,210       | 658        | 241        | 255    | 2,364 | -581   | 1,784          | 1,698   |
| 2036      | 1,215       | 664        | 242        | 256    | 2,377 | -593   | 1,784          | 1,698   |
| 2037      | 1,220       | 669        | 243        | 258    | 2,389 | -605   | 1,784          | 1,698   |
| 2038      | 1,224       | 674        | 244        | 259    | 2,401 | -618   | 1,784          | 1,698   |
| 2039      | 1,229       | 679        | 245        | 261    | 2,414 | -630   | 1,784          | 1,698   |
| 2040      | 1,234       | 685        | 246        | 262    | 2,427 | -643   | 1,784          | 1,698   |

Demand forecast (MW) by sector, base case

| NSPML Base |             |            |            |        |            | DSM MW | System Peak MW | Firm MW |
|------------|-------------|------------|------------|--------|------------|--------|----------------|---------|
| Year       | Residential | Commercial | Industrial | Losses | Total Peak |        |                |         |
| 2015       | 1,051       | 539        | 335        | 217    | 2,142      | -100   | 2,042          | 1,891   |
| 2016       | 1,066       | 546        | 337        | 220    | 2,169      | -129   | 2,041          | 1,890   |
| 2017       | 1,079       | 554        | 340        | 223    | 2,197      | -155   | 2,042          | 1,892   |
| 2018       | 1,090       | 562        | 343        | 226    | 2,221      | -182   | 2,039          | 1,888   |
| 2019       | 1,105       | 570        | 346        | 229    | 2,250      | -210   | 2,040          | 1,890   |
| 2020       | 1,119       | 578        | 350        | 232    | 2,279      | -240   | 2,039          | 1,889   |
| 2021       | 1,134       | 586        | 353        | 235    | 2,308      | -268   | 2,040          | 1,890   |
| 2022       | 1,147       | 594        | 357        | 239    | 2,337      | -296   | 2,041          | 1,891   |
| 2023       | 1,164       | 602        | 361        | 242    | 2,368      | -323   | 2,045          | 1,895   |
| 2024       | 1,178       | 610        | 365        | 245    | 2,398      | -351   | 2,047          | 1,897   |
| 2025       | 1,189       | 619        | 369        | 248    | 2,425      | -376   | 2,049          | 1,898   |
| 2026       | 1,201       | 627        | 373        | 251    | 2,452      | -401   | 2,051          | 1,901   |
| 2027       | 1,212       | 636        | 378        | 254    | 2,480      | -426   | 2,054          | 1,904   |
| 2028       | 1,224       | 645        | 382        | 257    | 2,508      | -451   | 2,057          | 1,906   |
| 2029       | 1,236       | 654        | 387        | 260    | 2,536      | -475   | 2,061          | 1,911   |
| 2030       | 1,248       | 664        | 391        | 263    | 2,565      | -498   | 2,067          | 1,917   |
| 2031       | 1,260       | 673        | 396        | 266    | 2,594      | -521   | 2,074          | 1,924   |
| 2032       | 1,272       | 682        | 400        | 269    | 2,624      | -544   | 2,080          | 1,930   |
| 2033       | 1,285       | 692        | 405        | 273    | 2,655      | -556   | 2,099          | 1,948   |
| 2034       | 1,298       | 702        | 410        | 276    | 2,687      | -569   | 2,118          | 1,968   |
| 2035       | 1,311       | 713        | 415        | 280    | 2,718      | -581   | 2,138          | 1,987   |
| 2036       | 1,324       | 723        | 420        | 283    | 2,751      | -593   | 2,158          | 2,007   |
| 2037       | 1,337       | 734        | 426        | 287    | 2,783      | -605   | 2,178          | 2,028   |
| 2038       | 1,351       | 744        | 431        | 290    | 2,816      | -618   | 2,198          | 2,048   |
| 2039       | 1,365       | 755        | 436        | 293    | 2,849      | -630   | 2,219          | 2,069   |
| 2040       | 1,379       | 766        | 442        | 296    | 2,883      | -643   | 2,240          | 2,090   |



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1 **Request IR-14:**

2  
3 **Reference: Appendix 6.03, Maritime Link Alternatives Study Input Assumptions, Slides**  
4 **10-19**

5  
6 **(a) Please provide supporting data for the assumptions regarding capacity**  
7 **Contributions on slide 10.**

8  
9 **(b) Please confirm that the PH biomass plant is closed in 2019 in the low load case.**

10  
11 **(c) Please provide the operational characteristics of the Port Hawkesbury (PH) biomass**  
12 **plant, both when the paper mill is assumed in-service and shut, including: ramp rate**  
13 **(MW/minute), assumed forced outage characteristics, assumed planned outage**  
14 **characteristics, Derating Adjusted Forced Outage Rate (DAFOR), and min/max**  
15 **capacities.**

16  
17 **(d) Please provide the dispatch schedule and/or operating instructions for PH. If**  
18 **scheduling or operating instructions vary, please describe the decision process by**  
19 **which PH is dispatched.**

20  
21 **(e) Please provide the operational characteristics of the biomass plant related to the**  
22 **Small Biomass PPA in service July 2015, including: ramp rate (MW/minute),**  
23 **assumed forced outage characteristics, assumed planned outage characteristics,**  
24 **Derating Adjusted Forced Outage Rate (DAFOR), and min/max capacities.**

25  
26 **(f) Please provide the dispatch schedule and/or operating instructions for the biomass**  
27 **plant related to the Small Biomass PPA. If scheduling or operating instructions**  
28 **vary, please describe the decision process by which the Small Biomass plant is**  
29 **dispatched.**

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- 1 (g) Please provide supporting data for the thermal unit assumptions on slides 12 and  
2 13  
3
- 4 (h) Please provide supporting data for the coal and heavy fuel oil price assumptions on  
5 slide 13.  
6
- 7 (i) Please provide supporting data for the cost assumptions on slides 14 and 15.  
8
- 9 (j) Please provide supporting documentation indicating the adequacy of the  
10 alternatives in both the base and low load cases to meet the load requirements.  
11
- 12 (k) Please provide supporting documentation for all the financial assumptions  
13 Presented on slides 16 and 17.  
14
- 15 (l) Please provide supporting documentation for all the wind assumptions presented on  
16 slide 18 in particular explain why the debt rate used is 6% for indigenous wind,  
17 instead of the 5% debt rate used for the *Other Import* alternative...  
18
- 19 (m) Please provide supporting documentation for all the natural gas resource  
20 assumptions presented on slide 19. This includes all computations and/or supporting  
21 documentation for capital cost, variable O&M cost, and fixed O&Mcost for the CT  
22 50 MW, CT 100 MW, CC 150 MW, and CC 250 MW units described. Additionally,  
23 please provide any documentation or explanation detailing why, for each of the two  
24 gas-fired generation technologies presented, the variable O&M cost (\$/MWh) for  
25 the larger unit is higher than the smaller unit in each case.  
26

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1 Response IR-14:

2  
3 (a) Direction for capacity contribution was taken from the ICF International whitepaper titled  
4 “Integrating Variable Renewable Electric Power Generators and the Natural Gas  
5 Infrastructure” November 2011, Page 7.

6  
7 (b) In the Low Load case, the Port Hawkesbury Mill is assumed to be closed in 2020, but the  
8 Port Hawkesbury Biomass Generator continues to operate.

9  
10 (c-d) Port Hawkesbury Biomass plant was modeled in Strategist as a fixed transaction, due to  
11 RES requirements and expected limited capability to operate as a load following unit.  
12 Unit capacity information, with and without PH mill, are presented in the Appendix 6.03  
13 page 11.

14  
15 (e-f) The Small Biomass PPA was modeled in Strategist as a fixed transaction similar to the  
16 Port Hawkesbury Biomass plant.

17  
18 (g) Please refer to Attachment 1 for 2009 IRP fleet maintenance schedule. The same  
19 maintenance schedule was used for all years modeled. Please refer to McMaster IR-4 for  
20 unit operating characteristics.

21  
22 (h) Please refer to Synapse IR-33.

23  
24 (i) The Maritime Link Cost assumptions are based on information in the Financial Appendix  
25 4.01 of the Filing. The Other Import Capital Cost is based on the WKM Report,  
26 Appendix 6.05 of the Application. Please refer to Attachment 2, filed electronically, for  
27 the model associated with the Other Import option. For the Indigenous Wind  
28 assumptions, please refer to Synapse IR-1 Attachment 1, filed electronically and Synapse  
29 IR-1 Attachment 2.

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- 1 (j) Please refer to SBA IR-243 Attachment 2.  
2
- 3 (k) For slide 16, “Alternatives – Maritime Link Assumptions”, the 70 percent debt rate is  
4 based on details in the Federal Loan Guarantee Term Sheet, Appendix 4.03 of the Filing.  
5 Please refer to NSUARB IR-87 for background on the 4 percent debt rate assumption.  
6 The ROE assumptions represent an adequate return for a project of this type. For Slide  
7 17, “Alternatives – Other Import”, the percent debt is based on the capital structure for a  
8 project in rate base, the 5 percent debt rate is 100 basis points higher than the Maritime  
9 Link assumptions as it would not include any benefit of a Federal Loan Guarantee. The  
10 ROE is an acceptable return for a project of this type.  
11
- 12 (l) Please refer to Synapse IR-1 Attachment 1 and Synapse IR-1 Attachment 2. The debt  
13 rate on the wind cases is higher as these projects would be built in the future (2019, 2028,  
14 2044 & 2037) and it is anticipated that interest rates will rise from current levels.  
15
- 16 (m) NS Power developed the assumptions for resource option costs from a number of sources  
17 using previously vetted data where available. Many of these assumptions were originally  
18 developed from Gas Turbine World information with regional adjustments. The 2009  
19 IRP update was the source for data on the CT 50 MW (with escalations to 2015). More  
20 recent data was available from the Atlantic Energy Gateway and this was used for the CC  
21 150 MW as well as the CC 250 MW. Some updates to the CC 150 MW costs were made  
22 to reflect the assumptions in recent filings (2014 GRA). The CT 100 MW values were  
23 derived from manufacturer supplied information with NS Power engineering input (GE  
24 LMS100). The increased complexity of the CT 100 MW together with market pricing of  
25 maintenance and services on this speciality equipment were the rationale for the higher  
26 variable cost assumptions used in the model.  
27
- 28 All Alternatives were offered the same resource options with these common cost  
29 assumptions.

### Thermal Maintenance Schedule 2008 Base Assumptions (2010-2032)

| ID | Task Name    | Duration | Start        | Finish       | Apr '08      |   | May '08 |    |    | Jun '08 |    |    | Jul '08 |   |   | Aug '08 |    |    | Sep '08 |    |    | Oct '08 |   |    | Nov '08 |    |    | D |   |    |    |    |   |    |    |
|----|--------------|----------|--------------|--------------|--------------|---|---------|----|----|---------|----|----|---------|---|---|---------|----|----|---------|----|----|---------|---|----|---------|----|----|---|---|----|----|----|---|----|----|
|    |              |          |              |              | 30           | 6 | 13      | 20 | 27 | 4       | 11 | 18 | 25      | 1 | 8 | 15      | 22 | 29 | 6       | 13 | 20 | 27      | 3 | 10 | 17      | 24 | 31 |   | 7 | 14 | 21 | 28 | 5 | 12 | 19 |
| 1  | Pt Aconi     | 4 ewks   | Tue 4/15/08  | Tue 5/13/08  | Pt Aconi     |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 2  | Lingan 1     | 3 ewks   | Tue 5/13/08  | Tue 6/3/08   | Lingan 1     |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 3  | Lingan 2     | 3 ewks   | Thu 6/5/08   | Thu 6/26/08  | Lingan 2     |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 4  | Lingan 3     | 3 ewks   | Sat 6/28/08  | Sat 7/19/08  | Lingan 3     |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 5  | Lingan 4     | 3 ewks   | Mon 7/21/08  | Mon 8/11/08  | Lingan 4     |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 6  | Tupper 2     | 3 ewks   | Wed 8/13/08  | Wed 9/3/08   | Tupper 2     |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 7  | Trenton 5    | 4 ewks   | Wed 9/3/08   | Wed 10/1/08  | Trenton 5    |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 8  | Trenton 6    | 3 ewks   | Wed 10/1/08  | Wed 10/22/08 | Trenton 6    |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 9  | Tufts Cove 3 | 3 ewks   | Wed 10/22/08 | Wed 11/12/08 | Tufts Cove 3 |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 10 | Tufts Cove 2 | 3 ewks   | Sat 6/7/08   | Sat 6/28/08  | Tufts Cove 2 |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 11 | Tufts Cove 1 | 3 ewks   | Tue 7/1/08   | Tue 7/22/08  | Tufts Cove 1 |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 12 |              |          |              |              |              |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 13 |              |          |              |              |              |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 14 | VJ 2         | 2 ewks   | Thu 4/24/08  | Thu 5/8/08   | VJ 2         |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 15 | Burnside 2   | 3 ewks   | Thu 5/15/08  | Thu 6/5/08   | Burnside 2   |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 16 | Burnside 1   | 2 ewks   | Thu 6/5/08   | Thu 6/19/08  | Burnside 1   |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 17 | TUC 4        | 2 ewks   | Tue 7/22/08  | Tue 8/5/08   | TUC 4        |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 18 | TUC 5        | 2 ewks   | Tue 8/5/08   | Tue 8/19/08  | TUC 5        |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 19 | VJ 1         | 2 ewks   | Tue 8/19/08  | Tue 9/2/08   | VJ 1         |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 20 | Burnside 4   | 3 ewks   | Thu 9/4/08   | Thu 9/25/08  | Burnside 4   |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 21 | Tusket       | 3 ewks   | Thu 9/25/08  | Thu 10/16/08 | Tusket       |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |
| 22 | Burnside 3   | 3 ewks   | Thu 10/16/08 | Thu 11/6/08  | Burnside 3   |   |         |    |    |         |    |    |         |   |   |         |    |    |         |    |    |         |   |    |         |    |    |   |   |    |    |    |   |    |    |

Note: ewks = elapsed weeks

**Inputs for Rate Base Model**

|  |                   |
|--|-------------------|
| Total Capital Cost, including AFUDC (2015 \$000) | \$442             |
| Contingency                                      | 50.0% Contingency |
| Year of Estimate                                 | 2015              |
| % Equity   | 40.0%             |
| % Debt   | 60.0%             |
| ROE  | 10.00%            |
| Interest Cost                                    | 5.0%              |

**Inputs for Firm Purchase Revenue Requirement**

|                                    |         |
|------------------------------------|---------|
| Firm Capacity Associated with F    | 165     |
| Days of Energy Delivery            | 365     |
| Hours per Day                      | 16      |
| On Peak days per week              | 5       |
| Off peak days per week             | 2       |
| Total Energy Purchased             | 963,600 |
| Total On Peak Energy Purchased     | 688,286 |
| Total Off Peak Energy Purchased    | 275,314 |
| Losses to Delivery Point           | 3.30%   |
| Total New Transmission Reserve     | 500     |
| New NB Tariff Transmission Service | \$38.26 |
| Year                               | 2015    |
| Escalator                          | 1.01%   |
| New NB Tariff Ancillary Service:   | \$5.11  |
| Year                               | 2015    |
| Escalator                          | 0.99%   |

**Inputs for Numbers to V**

|                      |     |
|----------------------|-----|
| % of First year sale | 25% |
|----------------------|-----|

## Other Import Option - 500MW Firm Capital Recovery Portion

|   | Year 1<br>2017 | Year 2<br>2018 | Year 3<br>2019 |
|---|----------------|----------------|----------------|
| <b>Plant Associated Cost Assumptions</b>                    |                |                |                |
| Total Capital Cost, including AFUDC (2015 \$000) WITH Conti | \$663          | 663            | \$0            |
| Total Capital Cost, including AFUDC (2017 \$000) WITH Conti | \$676          |                |                |
| Useful Economic Life/Depreciation Period (yrs.)             | 45             | 45             | 45             |
| % of Year's Sales applicable to Revenue Requirement         | 25%            | 100%           | 100%           |
| <b>Economic Assumptions</b>                                 |                |                |                |
| Inflation   | 2.0%           | 2.0%           | 2.0%           |
| Escalation of Capital                                       | 1.0%           | 1.0%           | 1.0%           |
| Escalation of Fuel Costs                                    | 2.0%           | 2.0%           | 2.0%           |
| <b>Finance Assumptions</b>                                  |                |                |                |
| % Equity  | 40.0%          | 40.0%          | 40.0%          |
| % Debt  | 60.0%          | 60.0%          | 60.0%          |
| ROE   | 10.0%          | 10.0%          | 10.0%          |
| Interest Cost   | 5.0%           | 5.0%           | 5.0%           |
| <b>Tax Assumptions</b>                                      |                |                |                |
| Tax Rate  | 31%            | 31%            | 31%            |
| CCA Rate's  |                |                |                |
| Rate 1  | 8.0%           | 8.0%           | 8.0%           |
| % of Capital  | 100.0%         | 100.0%         | 100.0%         |
| Rate 2  | 0.0%           | 0.0%           | 0.0%           |
| % of Capital  | 0.0%           | 0.0%           | 0.0%           |
| Rate 3  | 0.0%           | 0.0%           | 0.0%           |
| % of Capital  | 0.0%           | 0.0%           | 0.0%           |
| Weighted Average CCA Rate                                   | 8.0%           | 8.0%           | 8.0%           |
| <b>COD</b>  | 2017           | 2017           | 2017           |
| <b>Revenue Requirement</b>                                  | 1              | 2              | 3              |
|   | 2017           | 2018           | 2019           |
| Depreciation  | \$4            | \$15           | \$15           |
| Interest Cost   | \$5            | \$20           | \$20           |
| ROE   | \$7            | \$27           | \$26           |
| Taxes   | \$ (7)         | \$ (5)         | \$ (3)         |
| <b>Total Revenue Requirement</b>                            | \$ 8           | \$ 57          | \$ 57          |
| <b>NPV of Revenue Requirement</b>                           | 1              | 2              | 3              |
| Depreciation  | 6.6%           | \$205.40       |                |
| Interest Cost   | 6.6%           | \$197.75       |                |
| ROE   | 6.6%           | \$263.67       |                |
| Taxes   | 6.6%           | \$49.16        |                |
| <b>Total Revenue Requirement</b>                            | 6.6%           | \$715.97       | \$ 4.77        |

| Rate Base           |          | 1     | 2     | 3     |
|---------------------|----------|-------|-------|-------|
|                     |          | 2017  | 2018  | 2019  |
| Opening             |          | \$676 | \$673 | \$658 |
| Annual Depreciation | \$661.30 | \$4   | \$15  | \$15  |
| Closing             | \$676    | \$673 | \$658 | \$643 |
| Average Rate Base   |          | \$674 | \$665 | \$650 |

| Taxes (Assumes Losses are used elsewhere in corporation) |  | 1              | 2              | 3              |
|--|--|----------------|----------------|----------------|
|  |  | 2017           | 2018           | 2019           |
| Revenue Requirement                                      |  | \$ 8           | \$ 57          | \$ 57          |
| Less: Interest   |  | \$ 5           | \$ 20          | \$ 20          |
| Less: Tax Depreciation                                   |  | \$ 27          | \$ 52          | \$ 48          |
| Taxable Income before application of losses              |  | <b>\$ (24)</b> | <b>\$ (15)</b> | <b>\$ (10)</b> |
| Losses Applied   |  |                |                |                |
| Taxable Income After Application of Losses               |  | <b>\$ (24)</b> | <b>\$ (15)</b> | <b>\$ (10)</b> |
| Tax Rate   |  | 31%            | 31%            | 31%            |
| <b>Taxes Payable</b>                                     |  | <b>(\$7)</b>   | <b>(\$5)</b>   | <b>(\$3)</b>   |

| Losses Available for Carryforward |     |      |      |      |
|-----------------------------------|-----|------|------|------|
| Opening                           |     | \$0  | \$24 | \$39 |
| Current Losses                    |     | \$24 | \$15 | \$10 |
| Less: Application of Losses       |     | \$0  | \$0  | \$0  |
| Ending                            | \$0 | \$24 | \$39 | \$49 |

| CCA Balances |       |       |       |       |
|--------------|-------|-------|-------|-------|
| Opening      | \$0   | \$338 | \$649 | \$597 |
| Additions    | \$338 | \$338 |       |       |
| Claimed      |       | \$27  | \$52  | \$48  |
| Ending       | \$338 | \$649 | \$597 | \$550 |

| Depreciation                     |  | 1          | 2           | 3           |
|----------------------------------|--|------------|-------------|-------------|
|                                  |  | 2017       | 2018        | 2019        |
| <b>Capital</b>                   |  | \$676      | \$676       | \$676       |
| Depreciation Period (Yrs.)       |  | 45         | 45          | 45          |
| <b>Total Annual Depreciation</b> |  | <b>\$4</b> | <b>\$15</b> | <b>\$15</b> |



| <b>Year 4<br/>2020</b> | <b>Year 5<br/>2021</b> | <b>Year 6<br/>2022</b> | <b>Year 7<br/>2023</b> | <b>Year 8<br/>2024</b> | <b>Year 9<br/>2025</b> | <b>Year 10<br/>2026</b> | <b>Year 11<br/>2027</b> |
|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|-------------------------|
| 45                     | 45                     | 45                     | 45                     | 45                     | 45                     | 45                      | 45                      |
| 100%                   | 100%                   | 100%                   | 100%                   | 100%                   | 100%                   | 100%                    | 100%                    |
| 2.0%                   | 2.0%                   | 2.0%                   | 2.0%                   | 2.0%                   | 2.0%                   | 2.0%                    | 2.0%                    |
| 1.0%                   | 1.0%                   | 1.0%                   | 1.0%                   | 1.0%                   | 1.0%                   | 1.0%                    | 1.0%                    |
| 2.0%                   | 2.0%                   | 2.0%                   | 2.0%                   | 2.0%                   | 2.0%                   | 2.0%                    | 2.0%                    |
| 40.0%                  | 40.0%                  | 40.0%                  | 40.0%                  | 40.0%                  | 40.0%                  | 40.0%                   | 40.0%                   |
| 60.0%                  | 60.0%                  | 60.0%                  | 60.0%                  | 60.0%                  | 60.0%                  | 60.0%                   | 60.0%                   |
| 10.0%                  | 10.0%                  | 10.0%                  | 10.0%                  | 10.0%                  | 10.0%                  | 10.0%                   | 10.0%                   |
| 5.0%                   | 5.0%                   | 5.0%                   | 5.0%                   | 5.0%                   | 5.0%                   | 5.0%                    | 5.0%                    |
| 31%                    | 31%                    | 31%                    | 31%                    | 31%                    | 31%                    | 31%                     | 31%                     |
| 8.0%                   | 8.0%                   | 8.0%                   | 8.0%                   | 8.0%                   | 8.0%                   | 8.0%                    | 8.0%                    |
| 100.0%                 | 100.0%                 | 100.0%                 | 100.0%                 | 100.0%                 | 100.0%                 | 100.0%                  | 100.0%                  |
| 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                    | 0.0%                    |
| 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                    | 0.0%                    |
| 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                    | 0.0%                    |
| 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                   | 0.0%                    | 0.0%                    |
| 8.0%                   | 8.0%                   | 8.0%                   | 8.0%                   | 8.0%                   | 8.0%                   | 8.0%                    | 8.0%                    |
| 2017                   | 2017                   | 2017                   | 2017                   | 2017                   | 2017                   | 2017                    | 2017                    |
| 4                      | 5                      | 6                      | 7                      | 8                      | 9                      | 10                      | 11                      |
| <b>2020</b>            | <b>2021</b>            | <b>2022</b>            | <b>2023</b>            | <b>2024</b>            | <b>2025</b>            | <b>2026</b>             | <b>2027</b>             |
| \$15                   | \$15                   | \$15                   | \$15                   | \$15                   | \$15                   | \$15                    | \$15                    |
| \$ 19                  | \$ 19                  | \$ 18                  | \$ 18                  | \$ 17                  | \$ 17                  | \$ 16                   | \$ 16                   |
| \$ 25                  | \$ 25                  | \$ 24                  | \$ 24                  | \$ 23                  | \$ 22                  | \$ 22                   | \$ 21                   |
| \$ (2)                 | \$ (0)                 | \$ 1                   | \$ 2                   | \$ 3                   | \$ 4                   | \$ 5                    | \$ 5                    |
| <b>\$ 58</b>           | <b>\$ 58</b>           | <b>\$ 58</b>           | <b>\$ 58</b>           | <b>\$ 58</b>           | <b>\$ 58</b>           | <b>\$ 58</b>            | <b>\$ 57</b>            |
| <b>4</b>               | <b>5</b>               | <b>6</b>               | <b>7</b>               | <b>8</b>               | <b>9</b>               | <b>10</b>               | <b>11</b>               |



| Year 12<br>2028 | Year 13<br>2029 | Year 14<br>2030 | Year 15<br>2031 | Year 16<br>2032 | Year 17<br>2033 | Year 18<br>2034 | Year 19<br>2035 |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 45              | 45              | 45              | 45              | 45              | 45              | 45              | 45              |
| 100%            | 100%            | 100%            | 100%            | 100%            | 100%            | 100%            | 100%            |
| 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            |
| 1.0%            | 1.0%            | 1.0%            | 1.0%            | 1.0%            | 1.0%            | 1.0%            | 1.0%            |
| 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            |
| 40.0%           | 40.0%           | 40.0%           | 40.0%           | 40.0%           | 40.0%           | 40.0%           | 40.0%           |
| 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           |
| 10.0%           | 10.0%           | 10.0%           | 10.0%           | 10.0%           | 10.0%           | 10.0%           | 10.0%           |
| 5.0%            | 5.0%            | 5.0%            | 5.0%            | 5.0%            | 5.0%            | 5.0%            | 5.0%            |
| 31%             | 31%             | 31%             | 31%             | 31%             | 31%             | 31%             | 31%             |
| 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            |
| 100.0%          | 100.0%          | 100.0%          | 100.0%          | 100.0%          | 100.0%          | 100.0%          | 100.0%          |
| 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            |
| 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            |
| 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            |
| 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            |
| 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            |
| 2017            | 2017            | 2017            | 2017            | 2017            | 2017            | 2017            | 2017            |
| 12              | 13              | 14              | 15              | 16              | 17              | 18              | 19              |
| 2028            | 2029            | 2030            | 2031            | 2032            | 2033            | 2034            | 2035            |
| \$15            | \$15            | \$15            | \$15            | \$15            | \$15            | \$15            | \$15            |
| \$ 15           | \$ 15           | \$ 15           | \$ 14           | \$ 14           | \$ 13           | \$ 13           | \$ 12           |
| \$ 21           | \$ 20           | \$ 19           | \$ 19           | \$ 18           | \$ 18           | \$ 17           | \$ 16           |
| \$ 6            | \$ 6            | \$ 7            | \$ 7            | \$ 8            | \$ 8            | \$ 8            | \$ 8            |
| <b>\$ 57</b>    | <b>\$ 56</b>    | <b>\$ 56</b>    | <b>\$ 55</b>    | <b>\$ 55</b>    | <b>\$ 54</b>    | <b>\$ 53</b>    | <b>\$ 52</b>    |
| 12              | 13              | 14              | 15              | 16              | 17              | 18              | 19              |



| Year 20<br>2036 | Year 21<br>2037 | Year 22<br>2038 | Year 23<br>2039 | Year 24<br>2040 | Year 25<br>2041 | Year 26<br>2042 | Year 27<br>2043 |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 45              | 45              | 45              | 45              | 45              | 45              | 45              | 45              |
| 100%            | 100%            | 100%            | 100%            | 100%            | 100%            | 100%            | 100%            |
| 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            |
| 1.0%            | 1.0%            | 1.0%            | 1.0%            | 1.0%            | 1.0%            | 1.0%            | 1.0%            |
| 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            |
| 40.0%           | 40.0%           | 40.0%           | 40.0%           | 40.0%           | 40.0%           | 40.0%           | 40.0%           |
| 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           |
| 10.0%           | 10.0%           | 10.0%           | 10.0%           | 10.0%           | 10.0%           | 10.0%           | 10.0%           |
| 5.0%            | 5.0%            | 5.0%            | 5.0%            | 5.0%            | 5.0%            | 5.0%            | 5.0%            |
| 31%             | 31%             | 31%             | 31%             | 31%             | 31%             | 31%             | 31%             |
| 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            |
| 100.0%          | 100.0%          | 100.0%          | 100.0%          | 100.0%          | 100.0%          | 100.0%          | 100.0%          |
| 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            |
| 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            |
| 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            |
| 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            |
| 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            |
| 2017            | 2017            | 2017            | 2017            | 2017            | 2017            | 2017            | 2017            |
| <b>20</b>       | <b>21</b>       | <b>22</b>       | <b>23</b>       | <b>24</b>       | <b>25</b>       | <b>26</b>       | <b>27</b>       |
| <b>2036</b>     | <b>2037</b>     | <b>2038</b>     | <b>2039</b>     | <b>2040</b>     | <b>2041</b>     | <b>2042</b>     | <b>2043</b>     |
| \$15            | \$15            | \$15            | \$15            | \$15            | \$15            | \$15            | \$15            |
| \$ 12           | \$ 11           | \$ 11           | \$ 10           | \$ 10           | \$ 10           | \$ 9            | \$ 9            |
| \$ 16           | \$ 15           | \$ 15           | \$ 14           | \$ 13           | \$ 13           | \$ 12           | \$ 12           |
| \$ 9            | \$ 9            | \$ 9            | \$ 9            | \$ 9            | \$ 9            | \$ 9            | \$ 9            |
| <b>\$ 51</b>    | <b>\$ 50</b>    | <b>\$ 49</b>    | <b>\$ 48</b>    | <b>\$ 47</b>    | <b>\$ 46</b>    | <b>\$ 45</b>    | <b>\$ 44</b>    |
| <b>20</b>       | <b>21</b>       | <b>22</b>       | <b>23</b>       | <b>24</b>       | <b>25</b>       | <b>26</b>       | <b>27</b>       |



| Year 28<br>2044 | Year 29<br>2045 | Year 30<br>2046 | Year 31<br>2047 | Year 32<br>2048 | Year 33<br>2049 | Year 34<br>2050 | Year 35<br>2051 |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 45              | 45              | 45              | 45              | 45              | 45              | 45              | 45              |
| 100%            | 100%            | 100%            | 100%            | 100%            | 100%            | 100%            | 100%            |
| 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            |
| 1.0%            | 1.0%            | 1.0%            | 1.0%            | 1.0%            | 1.0%            | 1.0%            | 1.0%            |
| 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            |
| 40.0%           | 40.0%           | 40.0%           | 40.0%           | 40.0%           | 40.0%           | 40.0%           | 40.0%           |
| 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           |
| 10.0%           | 10.0%           | 10.0%           | 10.0%           | 10.0%           | 10.0%           | 10.0%           | 10.0%           |
| 5.0%            | 5.0%            | 5.0%            | 5.0%            | 5.0%            | 5.0%            | 5.0%            | 5.0%            |
| 31%             | 31%             | 31%             | 31%             | 31%             | 31%             | 31%             | 31%             |
| 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            |
| 100.0%          | 100.0%          | 100.0%          | 100.0%          | 100.0%          | 100.0%          | 100.0%          | 100.0%          |
| 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            |
| 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            |
| 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            |
| 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            |
| 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            | 8.0%            |
| 2017            | 2017            | 2017            | 2017            | 2017            | 2017            | 2017            | 2017            |
| <b>28</b>       | <b>29</b>       | <b>30</b>       | <b>31</b>       | <b>32</b>       | <b>33</b>       | <b>34</b>       | <b>35</b>       |
| <b>2044</b>     | <b>2045</b>     | <b>2046</b>     | <b>2047</b>     | <b>2048</b>     | <b>2049</b>     | <b>2050</b>     | <b>2051</b>     |
| \$15            | \$15            | \$15            | \$15            | \$15            | \$15            | \$15            | \$15            |
| \$ 8            | \$ 8            | \$ 7            | \$ 7            | \$ 6            | \$ 6            | \$ 6            | \$ 5            |
| \$ 11           | \$ 10           | \$ 10           | \$ 9            | \$ 9            | \$ 8            | \$ 7            | \$ 7            |
| \$ 9            | \$ 9            | \$ 9            | \$ 9            | \$ 9            | \$ 9            | \$ 8            | \$ 8            |
| <b>\$ 43</b>    | <b>\$ 42</b>    | <b>\$ 41</b>    | <b>\$ 40</b>    | <b>\$ 39</b>    | <b>\$ 38</b>    | <b>\$ 36</b>    | <b>\$ 35</b>    |
| <b>28</b>       | <b>29</b>       | <b>30</b>       | <b>31</b>       | <b>32</b>       | <b>33</b>       | <b>34</b>       | <b>35</b>       |





| <b>Year 36<br/>2052</b> | <b>Year 37<br/>2053</b> | <b>Year 38<br/>2054</b> | <b>Year 39<br/>2055</b> | <b>Year 40<br/>2056</b> | <b>Year 41<br/>2057</b> | <b>Year 42<br/>2058</b> | <b>Year 43<br/>2059</b> |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| 45                      | 45                      | 45                      | 45                      | 45                      | 45                      | 45                      | 45                      |
| 100%                    | 100%                    | 100%                    | 100%                    | 100%                    | 100%                    | 100%                    | 100%                    |
| 2.0%                    | 2.0%                    | 2.0%                    | 2.0%                    | 2.0%                    | 2.0%                    | 2.0%                    | 2.0%                    |
| 1.0%                    | 1.0%                    | 1.0%                    | 1.0%                    | 1.0%                    | 1.0%                    | 1.0%                    | 1.0%                    |
| 2.0%                    | 2.0%                    | 2.0%                    | 2.0%                    | 2.0%                    | 2.0%                    | 2.0%                    | 2.0%                    |
| 40.0%                   | 40.0%                   | 40.0%                   | 40.0%                   | 40.0%                   | 40.0%                   | 40.0%                   | 40.0%                   |
| 60.0%                   | 60.0%                   | 60.0%                   | 60.0%                   | 60.0%                   | 60.0%                   | 60.0%                   | 60.0%                   |
| 10.0%                   | 10.0%                   | 10.0%                   | 10.0%                   | 10.0%                   | 10.0%                   | 10.0%                   | 10.0%                   |
| 5.0%                    | 5.0%                    | 5.0%                    | 5.0%                    | 5.0%                    | 5.0%                    | 5.0%                    | 5.0%                    |
| 31%                     | 31%                     | 31%                     | 31%                     | 31%                     | 31%                     | 31%                     | 31%                     |
| 8.0%                    | 8.0%                    | 8.0%                    | 8.0%                    | 8.0%                    | 8.0%                    | 8.0%                    | 8.0%                    |
| 100.0%                  | 100.0%                  | 100.0%                  | 100.0%                  | 100.0%                  | 100.0%                  | 100.0%                  | 100.0%                  |
| 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    |
| 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    |
| 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    |
| 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    | 0.0%                    |
| 8.0%                    | 8.0%                    | 8.0%                    | 8.0%                    | 8.0%                    | 8.0%                    | 8.0%                    | 8.0%                    |
| 2017                    | 2017                    | 2017                    | 2017                    | 2017                    | 2017                    | 2017                    | 2017                    |
| <b>36</b>               | <b>37</b>               | <b>38</b>               | <b>39</b>               | <b>40</b>               | <b>41</b>               | <b>42</b>               | <b>43</b>               |
| <b>2052</b>             | <b>2053</b>             | <b>2054</b>             | <b>2055</b>             | <b>2056</b>             | <b>2057</b>             | <b>2058</b>             | <b>2059</b>             |
| \$15                    | \$15                    | \$15                    | \$15                    | \$15                    | \$15                    | \$15                    | \$15                    |
| \$ 5                    | \$ 4                    | \$ 4                    | \$ 3                    | \$ 3                    | \$ 2                    | \$ 2                    | \$ 1                    |
| \$ 6                    | \$ 6                    | \$ 5                    | \$ 4                    | \$ 4                    | \$ 3                    | \$ 3                    | \$ 2                    |
| \$ 8                    | \$ 8                    | \$ 8                    | \$ 8                    | \$ 7                    | \$ 7                    | \$ 7                    | \$ 7                    |
| <b>\$ 34</b>            | <b>\$ 33</b>            | <b>\$ 32</b>            | <b>\$ 30</b>            | <b>\$ 29</b>            | <b>\$ 28</b>            | <b>\$ 27</b>            | <b>\$ 25</b>            |
| <b>36</b>               | <b>37</b>               | <b>38</b>               | <b>39</b>               | <b>40</b>               | <b>41</b>               | <b>42</b>               | <b>43</b>               |



| Year 44<br>2060 | Year 45<br>2061 | Year 46<br>2062 |
|-----------------|-----------------|-----------------|
|-----------------|-----------------|-----------------|

|            |            |           |
|------------|------------|-----------|
| 45<br>100% | 45<br>100% | 45<br>75% |
|------------|------------|-----------|

|      |      |      |
|------|------|------|
| 2.0% | 2.0% | 2.0% |
| 1.0% | 1.0% | 1.0% |
| 2.0% | 2.0% | 2.0% |

|       |       |       |
|-------|-------|-------|
| 40.0% | 40.0% | 40.0% |
| 60.0% | 60.0% | 60.0% |
| 10.0% | 10.0% | 10.0% |
| 5.0%  | 5.0%  | 5.0%  |

|     |     |     |
|-----|-----|-----|
| 31% | 31% | 31% |
|-----|-----|-----|

|        |        |        |
|--------|--------|--------|
| 8.0%   | 8.0%   | 8.0%   |
| 100.0% | 100.0% | 100.0% |
| 0.0%   | 0.0%   | 0.0%   |
| 0.0%   | 0.0%   | 0.0%   |
| 0.0%   | 0.0%   | 0.0%   |
| 0.0%   | 0.0%   | 0.0%   |
| 8.0%   | 8.0%   | 8.0%   |

|      |      |      |
|------|------|------|
| 2017 | 2017 | 2017 |
|------|------|------|

|           |           |           |
|-----------|-----------|-----------|
| <b>44</b> | <b>45</b> | <b>46</b> |
|-----------|-----------|-----------|

|             |             |             |
|-------------|-------------|-------------|
| <b>2060</b> | <b>2061</b> | <b>2062</b> |
|-------------|-------------|-------------|

|      |      |      |
|------|------|------|
| \$15 | \$15 | \$11 |
| \$ 1 | \$ 1 | \$ 0 |
| \$ 1 | \$ 1 | \$ 0 |
| \$ 7 | \$ 6 | \$ 5 |

---

|              |              |              |
|--------------|--------------|--------------|
| <b>\$ 24</b> | <b>\$ 23</b> | <b>\$ 17</b> |
|--------------|--------------|--------------|

|           |           |           |
|-----------|-----------|-----------|
| <b>44</b> | <b>45</b> | <b>46</b> |
|-----------|-----------|-----------|

| <b>44</b>   | <b>45</b>   | <b>46</b>   |
|-------------|-------------|-------------|
| <b>2060</b> | <b>2061</b> | <b>2062</b> |
| \$41        | \$26        | \$15        |
| \$15        | \$11        | \$0         |
| <hr/>       |             |             |
| \$26        | \$15        | \$15        |
| \$34        | \$21        | \$15        |

| <b>44</b>    | <b>45</b>    | <b>46</b>    |
|--------------|--------------|--------------|
| <b>2060</b>  | <b>2061</b>  | <b>2062</b>  |
| \$ 24        | \$ 23        | \$ 17        |
| \$ 1         | \$ 1         | \$ 0         |
| \$ 2         | \$ 1         | \$ 1         |
| <hr/>        |              |              |
| <b>\$ 21</b> | <b>\$ 21</b> | <b>\$ 15</b> |

|              |              |              |
|--------------|--------------|--------------|
| <b>\$ 21</b> | <b>\$ 21</b> | <b>\$ 15</b> |
| 31%          | 31%          | 31%          |
| <hr/>        |              |              |
| <b>\$7</b>   | <b>\$6</b>   | <b>\$5</b>   |

|       |     |     |
|-------|-----|-----|
| \$0   | \$0 | \$0 |
| \$0   | \$0 | \$0 |
| \$0   | \$0 | \$0 |
| <hr/> |     |     |
| \$0   | \$0 | \$0 |

|       |      |      |
|-------|------|------|
| \$20  | \$18 | \$17 |
| \$2   | \$1  | \$1  |
| <hr/> |      |      |
| \$18  | \$17 | \$15 |

| <b>44</b>   | <b>45</b>   | <b>46</b>   |
|-------------|-------------|-------------|
| <b>2060</b> | <b>2061</b> | <b>2062</b> |
| \$676       | \$676       | \$676       |
| 45          | 45          | 45          |
| <b>\$15</b> | <b>\$15</b> | <b>\$11</b> |

**Other Import Option - 500MW Firm**

|                          |                                 | Energy Purchased                          |  |                                 |   | Energy Delivered                           |        |                          |                                 | Fixed Annual Revenue Requirement |   |  |   | Energy Prices for Firm Energy |                                     |                            |                     |                               |   |                               |   |
|--------------------------|---------------------------------|---|--|---------------------------------|---|--|--------|--------------------------|---------------------------------|----------------------------------|---|--|---|-------------------------------|-------------------------------------|----------------------------|---------------------|-------------------------------|---|-------------------------------|---|
| Based on 7X.16           |                                 | Hours per Year 3,840                      |  | Hours per Year 4,171            |   | Hours per Year 1,669                       |        |                          |                                 |                                  |   |  |   |                               |                                     |                            |                     |                               |   |                               |   |
| Firm Energy Purchased MW | Total Firm Energy Purchased MWh | Total Firm Energy Purchased - On Peak MWh | Total Firm Energy Purchased - Off Peak MWh | Total Firm Energy Delivered MWh | Total Firm Energy Delivered - On Peak MWh | Total Firm Energy Delivered - Off Peak MWh | Losses | Firm Energy Purchased MW | Total Firm Energy Purchased MWh | Total Firm Energy Delivered MWh  | Total Firm Energy Delivered - On Peak MWh | Total Firm Energy Delivered - Off Peak MWh | Revenue Requirement from Investment in Transmission Capital \$M | New NB OATT Charges \$/kW/Yr  | NB OATT Ancillary Services \$/kW/Yr | Firm Capacity Purchased MW | NB OATT Charges \$M | Total Revenue Requirement \$M | Mass Hub - On Peak - Base +10% US\$/MWh | Plus: Capacity Adder US\$/MWh | Less: ISO New England Fees (Exports from NE) US\$/MWh |
| 2017                     | 963,600                         | 172,071                                   | 68,829                                     | 232,950                         | 166,557                                   | 66,557                                     | 3.30%  | 2017                     | 963,600                         | 232,950                          | 166,557                                   | 66,557                                     | \$8   | \$39.0                        | \$5.2                               | 500                        | \$13.7              | \$66.24                       | \$ 6.56                                 | \$ 1.68                       |   |
| 2018                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2018                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$57  | \$39.4                        | \$5.3                               | 500                        | \$79.3              | \$66.74                       | \$ 8.18                                 | \$ 1.68                       |   |
| 2019                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2019                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$57  | \$39.8                        | \$5.3                               | 500                        | \$79.3              | \$68.62                       | \$11.56                                 | \$ 1.69                       |   |
| 2020                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2020                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$58  | \$40.2                        | \$5.4                               | 500                        | \$80.7              | \$71.68                       | \$14.55                                 | \$ 1.71                       |   |
| 2021                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2021                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$58  | \$40.6                        | \$5.4                               | 500                        | \$81.2              | \$73.61                       | \$17.82                                 | \$ 1.73                       |   |
| 2022                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2022                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$58  | \$41.0                        | \$5.5                               | 500                        | \$81.5              | \$76.61                       | \$20.88                                 | \$ 1.75                       |   |
| 2023                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2023                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$58  | \$41.5                        | \$5.5                               | 500                        | \$81.8              | \$78.14                       | \$22.26                                 | \$ 1.76                       |   |
| 2024                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2024                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$58  | \$41.9                        | \$5.6                               | 500                        | \$81.9              | \$79.70                       | \$22.70                                 | \$ 1.78                       |   |
| 2025                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2025                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$58  | \$42.3                        | \$5.6                               | 500                        | \$82.0              | \$81.30                       | \$23.15                                 | \$ 1.80                       |   |
| 2026                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2026                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$58  | \$42.7                        | \$5.7                               | 500                        | \$82.0              | \$82.92                       | \$23.61                                 | \$ 1.82                       |   |
| 2027                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2027                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$57  | \$43.1                        | \$5.8                               | 500                        | \$81.8              | \$84.58                       | \$24.07                                 | \$ 1.83                       |   |
| 2028                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2028                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$57  | \$43.6                        | \$5.8                               | 500                        | \$81.6              | \$86.27                       | \$24.55                                 | \$ 1.85                       |   |
| 2029                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2029                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$56  | \$44.0                        | \$5.9                               | 500                        | \$81.4              | \$88.00                       | \$25.03                                 | \$ 1.87                       |   |
| 2030                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2030                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$56  | \$44.5                        | \$5.9                               | 500                        | \$81.0              | \$89.76                       | \$25.53                                 | \$ 1.89                       |   |
| 2031                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2031                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$55  | \$44.9                        | \$6.0                               | 500                        | \$80.7              | \$91.55                       | \$26.03                                 | \$ 1.91                       |   |
| 2032                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2032                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$55  | \$45.4                        | \$6.0                               | 500                        | \$80.2              | \$93.39                       | \$26.55                                 | \$ 1.93                       |   |
| 2033                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2033                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$54  | \$45.8                        | \$6.1                               | 500                        | \$80.0              | \$95.25                       | \$27.07                                 | \$ 1.95                       |   |
| 2034                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2034                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$53  | \$46.3                        | \$6.2                               | 500                        | \$79.2              | \$97.16                       | \$27.61                                 | \$ 1.97                       |   |
| 2035                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2035                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$52  | \$46.8                        | \$6.2                               | 500                        | \$78.6              | \$99.10                       | \$28.15                                 | \$ 1.99                       |   |
| 2036                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2036                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$51  | \$47.2                        | \$6.3                               | 500                        | \$78.0              | \$101.08                      | \$28.71                                 | \$ 2.01                       |   |
| 2037                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2037                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$50  | \$47.7                        | \$6.3                               | 500                        | \$77.4              | \$103.10                      | \$29.28                                 | \$ 2.03                       |   |
| 2038                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2038                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$49  | \$48.2                        | \$6.4                               | 500                        | \$76.7              | \$105.17                      | \$29.86                                 | \$ 2.05                       |   |
| 2039                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2039                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$48  | \$48.7                        | \$6.5                               | 500                        | \$76.0              | \$107.27                      | \$30.45                                 | \$ 2.07                       |   |
| 2040                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2040                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$47  | \$49.2                        | \$6.5                               | 500                        | \$75.3              | \$109.42                      | \$31.05                                 | \$ 2.09                       |   |
| 2041                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2041                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$46  | \$49.7                        | \$6.6                               | 500                        | \$74.6              | \$109.42                      | \$31.05                                 | \$ 2.11                       |   |
| 2042                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2042                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$45  | \$50.2                        | \$6.7                               | 500                        | \$73.8              | \$109.42                      | \$31.05                                 | \$ 2.13                       |   |
| 2043                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2043                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$44  | \$50.7                        | \$6.7                               | 500                        | \$73.0              | \$109.42                      | \$31.05                                 | \$ 2.15                       |   |
| 2044                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2044                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$43  | \$51.2                        | \$6.8                               | 500                        | \$72.2              | \$109.42                      | \$31.05                                 | \$ 2.17                       |   |
| 2045                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2045                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$42  | \$51.7                        | \$6.9                               | 500                        | \$71.4              | \$109.42                      | \$31.05                                 | \$ 2.19                       |   |
| 2046                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2046                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$41  | \$52.2                        | \$6.9                               | 500                        | \$70.6              | \$109.42                      | \$31.05                                 | \$ 2.22                       |   |
| 2047                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2047                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$40  | \$52.7                        | \$7.0                               | 500                        | \$69.7              | \$109.42                      | \$31.05                                 | \$ 2.24                       |   |
| 2048                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2048                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$39  | \$53.3                        | \$7.1                               | 500                        | \$68.9              | \$109.42                      | \$31.05                                 | \$ 2.26                       |   |
| 2049                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2049                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$38  | \$53.8                        | \$7.1                               | 500                        | \$68.0              | \$109.42                      | \$31.05                                 | \$ 2.28                       |   |
| 2050                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2050                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$36  | \$54.3                        | \$7.2                               | 500                        | \$67.1              | \$109.42                      | \$31.05                                 | \$ 2.31                       |   |
| 2051                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2051                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$35  | \$54.9                        | \$7.3                               | 500                        | \$66.3              | \$109.42                      | \$31.05                                 | \$ 2.33                       |   |
| 2052                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2052                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$34  | \$55.4                        | \$7.4                               | 500                        | \$65.4              | \$109.42                      | \$31.05                                 | \$ 2.35                       |   |
| 2053                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2053                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$33  | \$56.0                        | \$7.4                               | 500                        | \$64.5              | \$109.42                      | \$31.05                                 | \$ 2.38                       |   |
| 2054                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2054                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$32  | \$56.6                        | \$7.5                               | 500                        | \$63.6              | \$109.42                      | \$31.05                                 | \$ 2.40                       |   |
| 2055                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2055                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$30  | \$57.1                        | \$7.6                               | 500                        | \$62.7              | \$109.42                      | \$31.05                                 | \$ 2.42                       |   |
| 2056                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2056                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$29  | \$57.7                        | \$7.7                               | 500                        | \$61.8              | \$109.42                      | \$31.05                                 | \$ 2.45                       |   |
| 2057                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2057                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$28  | \$58.3                        | \$7.8                               | 500                        | \$60.8              | \$109.42                      | \$31.05                                 | \$ 2.47                       |   |
| 2058                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2058                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$27  | \$58.9                        | \$7.8                               | 500                        | \$59.9              | \$109.42                      | \$31.05                                 | \$ 2.50                       |   |
| 2059                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2059                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$25  | \$59.5                        | \$7.9                               | 500                        | \$59.0              | \$109.42                      | \$31.05                                 | \$ 2.52                       |   |
| 2060                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2060                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$24  | \$60.1                        | \$8.0                               | 500                        | \$58.1              | \$109.42                      | \$31.05                                 | \$ 2.55                       |   |
| 2061                     | 963,600                         | 688,286                                   | 275,314                                    | 931,801                         | 665,572                                   | 266,229                                    | 3.30%  | 2061                     | 931,801                         | 931,801                          | 665,572                                   | 266,229                                    | \$23  | \$60.7                        | \$8.0                               | 500                        | \$57.3              | \$109.42                      | \$31.05                                 | \$ 2.57                       |   |

| Purchased (165MW)                 |                                    |  |                                  |                                      |  |   |                                  |   |                                   |                                    |   |                                  |                                       |  |                               |  |
|-----------------------------------|------------------------------------|--|----------------------------------|--------------------------------------|--|---|----------------------------------|---|-----------------------------------|------------------------------------|---|----------------------------------|---------------------------------------|--|-------------------------------|--|
| Price at NB/US Border<br>US\$/MWh | Price at NB/US Border<br>CAD\$/MWh | Less: NB Transmission (On Peak)<br>CAD\$/MWh | Price Before Losses<br>CAD\$/MWh | Firm On Peak Energy Delivered<br>MWh | On Peak Revenue Requirement<br>CAD \$(000) | Mass Hub - Off Peak Base +10%<br>US\$/MWh | Plus: Capacity Adder<br>US\$/MWh | Less: ISO New (Exports from NE)<br>US\$/MWh | Price at NB/US Border<br>US\$/MWh | Price at NB/US Border<br>CAD\$/MWh | Less: NB Transmission (Off Peak)<br>CAD\$/MWh | Price Before Losses<br>CAD\$/MWh | Firm Off Peak Energy Delivered<br>MWh | On Peak Revenue Requirement<br>CAD \$(000) | Total Energy Delivered<br>MWh | Total Revenue Requirement<br>CAD \$(000) |
| \$71.13                           | \$73.27                            |  | \$73.27                          | 166,393                              | \$121,911                                  | 10%                                       | \$50.00                          | \$1.66                                      | \$54.90                           | \$56.55                            |   | \$56.55                          | 66,357                                | \$3,764                                    | 232,950                       | \$15,955                                 |
| \$73.24                           | \$75.44                            |  | \$75.44                          | 665,572                              | \$50,210                                   |   | \$51.04                          | \$8.18                                      | \$59.27                           | \$59.27                            |   | \$59.27                          | 266,229                               | \$15,779                                   | 931,801                       | \$65,989                                 |
| \$78.49                           | \$80.84                            |  | \$80.84                          | 665,572                              | \$53,807                                   |   | \$52.21                          | \$11.56                                     | \$62.08                           | \$63.94                            |   | \$63.94                          | 266,229                               | \$17,022                                   | 931,801                       | \$70,830                                 |
| \$84.52                           | \$87.06                            |  | \$87.06                          | 665,572                              | \$57,942                                   |   | \$54.58                          | \$14.55                                     | \$67.42                           | \$68.44                            |   | \$68.44                          | 266,229                               | \$18,488                                   | 931,801                       | \$76,430                                 |
| \$89.70                           | \$92.39                            |  | \$92.39                          | 665,572                              | \$61,493                                   |   | \$56.13                          | \$17.82                                     | \$72.22                           | \$74.39                            |   | \$74.39                          | 266,229                               | \$19,805                                   | 931,801                       | \$81,298                                 |
| \$96.75                           | \$98.62                            |  | \$98.62                          | 665,572                              | \$65,637                                   |   | \$58.68                          | \$20.88                                     | \$77.82                           | \$80.15                            |   | \$80.15                          | 266,229                               | \$21,339                                   | 931,801                       | \$86,676                                 |
| \$98.63                           | \$101.59                           |  | \$101.59                         | 665,572                              | \$67,618                                   |   | \$59.85                          | \$22.26                                     | \$80.35                           | \$82.76                            |   | \$82.76                          | 266,229                               | \$22,033                                   | 931,801                       | \$89,651                                 |
| \$100.62                          | \$103.64                           |  | \$103.64                         | 665,572                              | \$68,981                                   |   | \$61.05                          | \$22.70                                     | \$81.97                           | \$84.43                            |   | \$84.43                          | 266,229                               | \$22,478                                   | 931,801                       | \$91,459                                 |
| \$102.65                          | \$105.73                           |  | \$105.73                         | 665,572                              | \$70,369                                   |   | \$62.27                          | \$23.15                                     | \$83.62                           | \$86.13                            |   | \$86.13                          | 266,229                               | \$22,931                                   | 931,801                       | \$93,300                                 |
| \$104.71                          | \$107.86                           |  | \$107.86                         | 665,572                              | \$71,785                                   |   | \$63.52                          | \$23.61                                     | \$85.31                           | \$87.87                            |   | \$87.87                          | 266,229                               | \$23,393                                   | 931,801                       | \$95,178                                 |
| \$106.82                          | \$110.03                           |  | \$110.03                         | 665,572                              | \$73,230                                   |   | \$64.79                          | \$24.07                                     | \$87.03                           | \$89.64                            |   | \$89.64                          | 266,229                               | \$23,864                                   | 931,801                       | \$97,094                                 |
| \$108.97                          | \$112.24                           |  | \$112.24                         | 665,572                              | \$74,703                                   |   | \$66.08                          | \$24.55                                     | \$88.78                           | \$91.44                            |   | \$91.44                          | 266,229                               | \$24,345                                   | 931,801                       | \$99,048                                 |
| \$111.16                          | \$114.50                           |  | \$114.50                         | 665,572                              | \$76,206                                   |   | \$67.41                          | \$25.03                                     | \$90.57                           | \$93.29                            |   | \$93.29                          | 266,229                               | \$24,835                                   | 931,801                       | \$101,041                                |
| \$113.40                          | \$116.80                           |  | \$116.80                         | 665,572                              | \$77,739                                   |   | \$68.75                          | \$25.53                                     | \$92.39                           | \$95.16                            |   | \$95.16                          | 266,229                               | \$25,335                                   | 931,801                       | \$103,074                                |
| \$115.68                          | \$119.15                           |  | \$119.15                         | 665,572                              | \$79,302                                   |   | \$70.13                          | \$26.03                                     | \$94.25                           | \$97.08                            |   | \$97.08                          | 266,229                               | \$25,846                                   | 931,801                       | \$105,148                                |
| \$118.01                          | \$121.55                           |  | \$121.55                         | 665,572                              | \$80,897                                   |   | \$71.53                          | \$26.55                                     | \$96.15                           | \$99.04                            |   | \$99.04                          | 266,229                               | \$26,366                                   | 931,801                       | \$107,263                                |
| \$120.38                          | \$123.99                           |  | \$123.99                         | 665,572                              | \$82,524                                   |   | \$72.96                          | \$27.07                                     | \$98.09                           | \$101.03                           |   | \$101.03                         | 266,229                               | \$26,897                                   | 931,801                       | \$109,421                                |
| \$122.80                          | \$126.48                           |  | \$126.48                         | 665,572                              | \$84,183                                   |   | \$74.42                          | \$27.61                                     | \$100.06                          | \$103.06                           |   | \$103.06                         | 266,229                               | \$27,439                                   | 931,801                       | \$111,622                                |
| \$125.27                          | \$129.03                           |  | \$129.03                         | 665,572                              | \$85,876                                   |   | \$75.91                          | \$28.15                                     | \$102.08                          | \$105.14                           |   | \$105.14                         | 266,229                               | \$27,991                                   | 931,801                       | \$113,867                                |
| \$127.79                          | \$131.62                           |  | \$131.62                         | 665,572                              | \$87,603                                   |   | \$77.43                          | \$28.71                                     | \$104.13                          | \$107.25                           |   | \$107.25                         | 266,229                               | \$28,554                                   | 931,801                       | \$116,157                                |
| \$130.36                          | \$134.27                           |  | \$134.27                         | 665,572                              | \$89,364                                   |   | \$78.98                          | \$29.28                                     | \$106.23                          | \$109.41                           |   | \$109.41                         | 266,229                               | \$29,129                                   | 931,801                       | \$118,493                                |
| \$132.98                          | \$136.97                           |  | \$136.97                         | 665,572                              | \$91,160                                   |   | \$80.56                          | \$29.86                                     | \$108.36                          | \$111.62                           |   | \$111.62                         | 266,229                               | \$29,715                                   | 931,801                       | \$120,876                                |
| \$135.65                          | \$139.72                           |  | \$139.72                         | 665,572                              | \$92,993                                   |   | \$82.17                          | \$30.45                                     | \$110.55                          | \$113.86                           |   | \$113.86                         | 266,229                               | \$30,313                                   | 931,801                       | \$123,306                                |
| \$138.38                          | \$142.53                           |  | \$142.53                         | 665,572                              | \$94,862                                   |   | \$83.81                          | \$31.05                                     | \$112.77                          | \$116.15                           |   | \$116.15                         | 266,229                               | \$30,923                                   | 931,801                       | \$125,785                                |
| \$138.35                          | \$142.53                           |  | \$142.53                         | 665,572                              | \$94,847                                   |   | \$83.81                          | \$31.05                                     | \$112.75                          | \$116.13                           |   | \$116.13                         | 266,229                               | \$30,918                                   | 931,801                       | \$125,765                                |
| \$138.33                          | \$142.48                           |  | \$142.48                         | 665,572                              | \$94,833                                   |   | \$83.81                          | \$31.05                                     | \$112.73                          | \$116.11                           |   | \$116.11                         | 266,229                               | \$30,912                                   | 931,801                       | \$125,745                                |
| \$138.31                          | \$142.46                           |  | \$142.46                         | 665,572                              | \$94,818                                   |   | \$83.81                          | \$31.05                                     | \$112.71                          | \$116.09                           |   | \$116.09                         | 266,229                               | \$30,906                                   | 931,801                       | \$125,724                                |
| \$138.29                          | \$142.44                           |  | \$142.44                         | 665,572                              | \$94,804                                   |   | \$83.81                          | \$31.05                                     | \$112.68                          | \$116.07                           |   | \$116.07                         | 266,229                               | \$30,900                                   | 931,801                       | \$125,704                                |
| \$138.27                          | \$142.42                           |  | \$142.42                         | 665,572                              | \$94,789                                   |   | \$83.81                          | \$31.05                                     | \$112.66                          | \$116.04                           |   | \$116.04                         | 266,229                               | \$30,894                                   | 931,801                       | \$125,683                                |
| \$138.25                          | \$142.39                           |  | \$142.39                         | 665,572                              | \$94,774                                   |   | \$83.81                          | \$31.05                                     | \$112.64                          | \$116.02                           |   | \$116.02                         | 266,229                               | \$30,888                                   | 931,801                       | \$125,662                                |
| \$138.22                          | \$142.37                           |  | \$142.37                         | 665,572                              | \$94,758                                   |   | \$83.81                          | \$31.05                                     | \$112.62                          | \$116.00                           |   | \$116.00                         | 266,229                               | \$30,882                                   | 931,801                       | \$125,640                                |
| \$138.20                          | \$142.35                           |  | \$142.35                         | 665,572                              | \$94,743                                   |   | \$83.81                          | \$31.05                                     | \$112.60                          | \$115.97                           |   | \$115.97                         | 266,229                               | \$30,876                                   | 931,801                       | \$125,619                                |
| \$138.18                          | \$142.33                           |  | \$142.33                         | 665,572                              | \$94,728                                   |   | \$83.81                          | \$31.05                                     | \$112.57                          | \$115.95                           |   | \$115.95                         | 266,229                               | \$30,870                                   | 931,801                       | \$125,597                                |
| \$138.16                          | \$142.30                           |  | \$142.30                         | 665,572                              | \$94,712                                   |   | \$83.81                          | \$31.05                                     | \$112.55                          | \$115.93                           |   | \$115.93                         | 266,229                               | \$30,863                                   | 931,801                       | \$125,575                                |
| \$138.13                          | \$142.28                           |  | \$142.28                         | 665,572                              | \$94,696                                   |   | \$83.81                          | \$31.05                                     | \$112.53                          | \$115.90                           |   | \$115.90                         | 266,229                               | \$30,857                                   | 931,801                       | \$125,553                                |
| \$138.11                          | \$142.25                           |  | \$142.25                         | 665,572                              | \$94,680                                   |   | \$83.81                          | \$31.05                                     | \$112.50                          | \$115.88                           |   | \$115.88                         | 266,229                               | \$30,851                                   | 931,801                       | \$125,531                                |
| \$138.09                          | \$142.23                           |  | \$142.23                         | 665,572                              | \$94,664                                   |   | \$83.81                          | \$31.05                                     | \$112.48                          | \$115.86                           |   | \$115.86                         | 266,229                               | \$30,844                                   | 931,801                       | \$125,508                                |
| \$138.06                          | \$142.21                           |  | \$142.21                         | 665,572                              | \$94,648                                   |   | \$83.81                          | \$31.05                                     | \$112.46                          | \$115.83                           |   | \$115.83                         | 266,229                               | \$30,838                                   | 931,801                       | \$125,485                                |
| \$138.04                          | \$142.18                           |  | \$142.18                         | 665,572                              | \$94,631                                   |   | \$83.81                          | \$31.05                                     | \$112.43                          | \$115.81                           |   | \$115.81                         | 266,229                               | \$30,831                                   | 931,801                       | \$125,462                                |
| \$138.01                          | \$142.16                           |  | \$142.16                         | 665,572                              | \$94,615                                   |   | \$83.81                          | \$31.05                                     | \$112.41                          | \$115.78                           |   | \$115.78                         | 266,229                               | \$30,824                                   | 931,801                       | \$125,439                                |
| \$137.99                          | \$142.13                           |  | \$142.13                         | 665,572                              | \$94,598                                   |   | \$83.81                          | \$31.05                                     | \$112.38                          | \$115.76                           |   | \$115.76                         | 266,229                               | \$30,818                                   | 931,801                       | \$125,416                                |
| \$137.97                          | \$142.10                           |  | \$142.10                         | 665,572                              | \$94,581                                   |   | \$83.81                          | \$31.05                                     | \$112.36                          | \$115.73                           |   | \$115.73                         | 266,229                               | \$30,811                                   | 931,801                       | \$125,392                                |
| \$137.94                          | \$142.08                           |  | \$142.08                         | 665,572                              | \$94,564                                   |   | \$83.81                          | \$31.05                                     | \$112.34                          | \$115.71                           |   | \$115.71                         | 266,229                               | \$30,804                                   | 931,801                       | \$125,368                                |
| \$137.92                          | \$142.05                           |  | \$142.05                         | 665,572                              | \$94,547                                   |   | \$83.81                          | \$31.05                                     | \$112.31                          | \$115.68                           |   | \$115.68                         | 266,229                               | \$30,797                                   | 931,801                       | \$125,344                                |
| \$137.89                          | \$142.03                           |  | \$142.03                         | 665,572                              | \$94,529                                   |   | \$83.81                          | \$31.05                                     | \$112.28                          | \$115.65                           |   | \$115.65                         | 266,229                               | \$30,790                                   | 931,801                       | \$125,319                                |



|             | <b>OI Base Load Economy Energy Purchases from NB</b> | <b>Purchase Cost</b> | <b>OI Base Load EE</b> |
|-------------|--|----------------------|------------------------|
|             | <b>GWh</b>   | <b>k\$</b>           |                        |
| <b>2015</b> | 0.0  | \$0.0                |                        |
| <b>2016</b> | 0.0  | \$0.0                |                        |
| <b>2017</b> | 1241.2   | \$60,390.3           | \$48.65                |
| <b>2018</b> | 2532.2   | \$122,638.5          | \$48.43                |
| <b>2019</b> | 2494.3   | \$124,468.3          | \$49.90                |
| <b>2020</b> | 2489.7   | \$129,997.7          | \$52.21                |
| <b>2021</b> | 2531.2   | \$137,173.5          | \$54.19                |
| <b>2022</b> | 2505.2   | \$141,867.0          | \$56.63                |
| <b>2023</b> | 2546.3   | \$147,725.9          | \$58.02                |
| <b>2024</b> | 2541.0   | \$150,241.1          | \$59.13                |
| <b>2025</b> | 2599.5   | \$158,709.3          | \$61.05                |
| <b>2026</b> | 2629.1   | \$164,166.6          | \$62.44                |
| <b>2027</b> | 2635.8   | \$167,365.5          | \$63.50                |
| <b>2028</b> | 2632.1   | \$170,121.5          | \$64.63                |
| <b>2029</b> | 2684.5   | \$177,955.6          | \$66.29                |
| <b>2030</b> | 2904.7   | \$202,297.1          | \$69.65                |
| <b>2031</b> | 2927.5   | \$206,667.4          | \$70.60                |
| <b>2032</b> | 2988.8   | \$216,246.7          | \$72.35                |
| <b>2033</b> | 3067.2   | \$226,108.7          | \$73.72                |
| <b>2034</b> | 3158.2   | \$241,177.3          | \$76.37                |
| <b>2035</b> | 3254.6   | \$256,353.7          | \$78.77                |
| <b>2036</b> | 3276.3   | \$264,102.2          | \$80.61                |
| <b>2037</b> | 3275.6   | \$268,689.3          | \$82.03                |
| <b>2038</b> | 3291.4   | \$275,845.1          | \$83.81                |
| <b>2039</b> | 3309.8   | \$282,751.1          | \$85.43                |
| <b>2040</b> | 3379.0   | \$299,821.5          | \$88.73                |



Off Peak Excess Energy Sales

|        | MassHub On Peak | Less: ISO NE Out | Sub Total | Less: NB TX | Price at HQ/NB Border |
|--------|-----------------|------------------|-----------|-------------|-----------------------|
|        | US\$/MWh        | US\$/MWh         | CADS/MWh  | CADS/MWh    | CADS/MWh              |
| Jan-17 | \$106.92        | \$0.00           | \$110.13  | \$0.00      | \$110.13              |
| Feb-17 | \$77.22         | \$0.00           | \$79.54   | \$0.00      | \$79.54               |
| Mar-17 | \$51.09         | \$0.00           | \$52.62   | \$0.00      | \$52.62               |
| Apr-17 | \$46.18         | \$0.00           | \$47.57   | \$0.00      | \$47.57               |
| May-17 | \$45.48         | \$0.00           | \$46.84   | \$0.00      | \$46.84               |
| Jun-17 | \$54.36         | \$0.00           | \$56.00   | \$0.00      | \$56.00               |
| Jul-17 | \$69.85         | \$0.00           | \$71.94   | \$0.00      | \$71.94               |
| Aug-17 | \$59.46         | \$0.00           | \$61.24   | \$0.00      | \$61.24               |
| Sep-17 | \$46.23         | \$0.00           | \$47.62   | \$0.00      | \$47.62               |
| Oct-17 | \$48.34         | \$0.00           | \$49.30   | \$0.00      | \$49.30               |
| Nov-17 | \$47.77         | \$0.00           | \$49.11   | \$0.00      | \$49.11               |
| Dec-17 | \$74.18         | \$0.00           | \$76.41   | \$0.00      | \$76.41               |
| Jan-18 | \$104.05        | \$0.00           | \$107.79  | \$0.00      | \$107.79              |
| Feb-18 | \$76.17         | \$0.00           | \$78.46   | \$0.00      | \$78.46               |
| Mar-18 | \$51.45         | \$0.00           | \$52.99   | \$0.00      | \$52.99               |
| Apr-18 | \$46.96         | \$0.00           | \$48.37   | \$0.00      | \$48.37               |
| May-18 | \$47.60         | \$0.00           | \$49.03   | \$0.00      | \$49.03               |
| Jun-18 | \$55.88         | \$0.00           | \$57.55   | \$0.00      | \$57.55               |
| Jul-18 | \$71.31         | \$0.00           | \$73.45   | \$0.00      | \$73.45               |
| Aug-18 | \$58.82         | \$0.00           | \$60.58   | \$0.00      | \$60.58               |
| Sep-18 | \$47.33         | \$0.00           | \$48.75   | \$0.00      | \$48.75               |
| Oct-18 | \$46.93         | \$0.00           | \$46.30   | \$0.00      | \$46.30               |
| Nov-18 | \$48.93         | \$0.00           | \$50.39   | \$0.00      | \$50.39               |
| Dec-18 | \$74.04         | \$0.00           | \$76.26   | \$0.00      | \$76.26               |
| Jan-19 | \$106.18        | \$0.00           | \$109.36  | \$0.00      | \$109.36              |
| Feb-19 | \$76.48         | \$0.00           | \$78.77   | \$0.00      | \$78.77               |
| Mar-19 | \$52.98         | \$0.00           | \$54.57   | \$0.00      | \$54.57               |
| Apr-19 | \$46.70         | \$0.00           | \$50.16   | \$0.00      | \$50.16               |
| May-19 | \$49.75         | \$0.00           | \$51.24   | \$0.00      | \$51.24               |
| Jun-19 | \$58.08         | \$0.00           | \$59.82   | \$0.00      | \$59.82               |
| Jul-19 | \$74.80         | \$0.00           | \$77.05   | \$0.00      | \$77.05               |
| Aug-19 | \$59.90         | \$0.00           | \$61.70   | \$0.00      | \$61.70               |
| Sep-19 | \$48.57         | \$0.00           | \$50.03   | \$0.00      | \$50.03               |
| Oct-19 | \$46.15         | \$0.00           | \$47.53   | \$0.00      | \$47.53               |
| Nov-19 | \$50.65         | \$0.00           | \$52.17   | \$0.00      | \$52.17               |
| Dec-19 | \$76.40         | \$0.00           | \$78.69   | \$0.00      | \$78.69               |
| Jan-20 | \$110.28        | \$0.00           | \$113.59  | \$0.00      | \$113.59              |
| Feb-20 | \$79.06         | \$0.00           | \$81.43   | \$0.00      | \$81.43               |
| Mar-20 | \$55.55         | \$0.00           | \$57.21   | \$0.00      | \$57.21               |
| Apr-20 | \$50.62         | \$0.00           | \$52.14   | \$0.00      | \$52.14               |
| May-20 | \$52.59         | \$0.00           | \$54.16   | \$0.00      | \$54.16               |
| Jun-20 | \$62.94         | \$0.00           | \$64.82   | \$0.00      | \$64.82               |
| Jul-20 | \$77.08         | \$0.00           | \$79.40   | \$0.00      | \$79.40               |
| Aug-20 | \$61.69         | \$0.00           | \$63.55   | \$0.00      | \$63.55               |
| Sep-20 | \$50.33         | \$0.00           | \$51.84   | \$0.00      | \$51.84               |
| Oct-20 | \$47.90         | \$0.00           | \$49.33   | \$0.00      | \$49.33               |
| Nov-20 | \$54.00         | \$0.00           | \$55.62   | \$0.00      | \$55.62               |
| Dec-20 | \$112.83        | \$0.00           | \$116.21  | \$0.00      | \$116.21              |
| Jan-21 | \$81.56         | \$0.00           | \$84.01   | \$0.00      | \$84.01               |
| Feb-21 | \$57.25         | \$0.00           | \$58.97   | \$0.00      | \$58.97               |
| Mar-21 | \$52.48         | \$0.00           | \$54.05   | \$0.00      | \$54.05               |
| Apr-21 | \$55.85         | \$0.00           | \$57.52   | \$0.00      | \$57.52               |
| May-21 | \$64.46         | \$0.00           | \$66.39   | \$0.00      | \$66.39               |
| Jun-21 | \$78.35         | \$0.00           | \$80.70   | \$0.00      | \$80.70               |
| Jul-21 | \$62.36         | \$0.00           | \$64.23   | \$0.00      | \$64.23               |
| Aug-21 | \$51.41         | \$0.00           | \$52.95   | \$0.00      | \$52.95               |
| Sep-21 | \$48.03         | \$0.00           | \$49.50   | \$0.00      | \$49.50               |
| Oct-21 | \$56.97         | \$0.00           | \$57.65   | \$0.00      | \$57.65               |
| Nov-21 | \$81.50         | \$0.00           | \$83.95   | \$0.00      | \$83.95               |
| Dec-21 | \$116.15        | \$0.00           | \$119.63  | \$0.00      | \$119.63              |
| Jan-22 | \$64.25         | \$0.00           | \$66.78   | \$0.00      | \$66.78               |
| Feb-22 | \$59.30         | \$0.00           | \$61.08   | \$0.00      | \$61.08               |
| Mar-22 | \$55.44         | \$0.00           | \$57.11   | \$0.00      | \$57.11               |
| Apr-22 | \$62.65         | \$0.00           | \$64.53   | \$0.00      | \$64.53               |
| May-22 | \$66.32         | \$0.00           | \$68.31   | \$0.00      | \$68.31               |
| Jun-22 | \$80.98         | \$0.00           | \$83.41   | \$0.00      | \$83.41               |
| Jul-22 | \$63.31         | \$0.00           | \$65.21   | \$0.00      | \$65.21               |
| Aug-22 | \$53.27         | \$0.00           | \$54.87   | \$0.00      | \$54.87               |
| Sep-22 | \$50.96         | \$0.00           | \$52.49   | \$0.00      | \$52.49               |
| Oct-22 | \$58.55         | \$0.00           | \$60.31   | \$0.00      | \$60.31               |
| Nov-22 | \$84.55         | \$0.00           | \$87.08   | \$0.00      | \$87.08               |

On Peak Excess Energy Sales

|        | MassHub Off Peak | Less: ISO NE Out | Sub Total | Less: NB TX | Price at HQ/NB Border | Net On Peak Price delivered to NS | Plus TX to NS | Net On Peak Price delivered to NS |
|--------|------------------|------------------|-----------|-------------|-----------------------|-----------------------------------|---------------|-----------------------------------|
|        | US\$/MWh         | US\$/MWh         | CADS/MWh  | CADS/MWh    | CADS/MWh              | CADS/MWh                          | here          | CADS/MWh                          |
| Jan-17 | \$70.73          | \$0.00           | \$72.85   | \$0.00      | \$72.85               | \$110.13                          | \$0.00        | \$110.13                          |
| Feb-17 | \$63.87          | \$0.00           | \$65.78   | \$0.00      | \$65.78               | \$79.54                           | \$0.00        | \$79.54                           |
| Mar-17 | \$42.34          | \$0.00           | \$43.61   | \$0.00      | \$43.61               | \$52.62                           | \$0.00        | \$52.62                           |
| Apr-17 | \$37.69          | \$0.00           | \$38.62   | \$0.00      | \$38.62               | \$47.57                           | \$0.00        | \$47.57                           |
| May-17 | \$37.74          | \$0.00           | \$38.87   | \$0.00      | \$38.87               | \$46.84                           | \$0.00        | \$46.84                           |
| Jun-17 | \$37.64          | \$0.00           | \$38.77   | \$0.00      | \$38.77               | \$56.00                           | \$0.00        | \$56.00                           |
| Jul-17 | \$41.15          | \$0.00           | \$42.39   | \$0.00      | \$42.39               | \$71.94                           | \$0.00        | \$71.94                           |
| Aug-17 | \$40.72          | \$0.00           | \$41.94   | \$0.00      | \$41.94               | \$61.24                           | \$0.00        | \$61.24                           |
| Sep-17 | \$39.72          | \$0.00           | \$40.91   | \$0.00      | \$40.91               | \$47.62                           | \$0.00        | \$47.62                           |
| Oct-17 | \$37.17          | \$0.00           | \$38.59   | \$0.00      | \$38.59               | \$49.30                           | \$0.00        | \$49.30                           |
| Nov-17 | \$41.31          | \$0.00           | \$42.65   | \$0.00      | \$42.65               | \$49.11                           | \$0.00        | \$49.11                           |
| Dec-17 | \$55.58          | \$0.00           | \$57.25   | \$0.00      | \$57.25               | \$76.41                           | \$0.00        | \$76.41                           |
| Jan-18 | \$71.43          | \$0.00           | \$73.17   | \$0.00      | \$73.17               | \$107.79                          | \$0.00        | \$107.79                          |
| Feb-18 | \$64.25          | \$0.00           | \$66.18   | \$0.00      | \$66.18               | \$78.46                           | \$0.00        | \$78.46                           |
| Mar-18 | \$43.04          | \$0.00           | \$44.33   | \$0.00      | \$44.33               | \$52.99                           | \$0.00        | \$52.99                           |
| Apr-18 | \$38.15          | \$0.00           | \$39.30   | \$0.00      | \$39.30               | \$48.37                           | \$0.00        | \$48.37                           |
| May-18 | \$38.94          | \$0.00           | \$40.10   | \$0.00      | \$40.10               | \$49.03                           | \$0.00        | \$49.03                           |
| Jun-18 | \$38.94          | \$0.00           | \$40.11   | \$0.00      | \$40.11               | \$57.55                           | \$0.00        | \$57.55                           |
| Jul-18 | \$42.78          | \$0.00           | \$44.06   | \$0.00      | \$44.06               | \$73.45                           | \$0.00        | \$73.45                           |
| Aug-18 | \$42.17          | \$0.00           | \$43.44   | \$0.00      | \$43.44               | \$60.58                           | \$0.00        | \$60.58                           |
| Sep-18 | \$40.44          | \$0.00           | \$41.66   | \$0.00      | \$41.66               | \$48.75                           | \$0.00        | \$48.75                           |
| Oct-18 | \$38.16          | \$0.00           | \$39.31   | \$0.00      | \$39.31               | \$46.30                           | \$0.00        | \$46.30                           |
| Nov-18 | \$42.36          | \$0.00           | \$43.63   | \$0.00      | \$43.63               | \$50.39                           | \$0.00        | \$50.39                           |
| Dec-18 | \$56.15          | \$0.00           | \$57.84   | \$0.00      | \$57.84               | \$76.26                           | \$0.00        | \$76.26                           |
| Jan-19 | \$71.78          | \$0.00           | \$73.94   | \$0.00      | \$73.94               | \$109.36                          | \$0.00        | \$109.36                          |
| Feb-19 | \$64.55          | \$0.00           | \$66.49   | \$0.00      | \$66.49               | \$78.77                           | \$0.00        | \$78.77                           |
| Mar-19 | \$43.97          | \$0.00           | \$45.29   | \$0.00      | \$45.29               | \$54.57                           | \$0.00        | \$54.57                           |
| Apr-19 | \$40.02          | \$0.00           | \$40.31   | \$0.00      | \$40.31               | \$50.16                           | \$0.00        | \$50.16                           |
| May-19 | \$41.22          | \$0.00           | \$41.52   | \$0.00      | \$41.52               | \$51.24                           | \$0.00        | \$51.24                           |
| Jun-19 | \$44.15          | \$0.00           | \$45.48   | \$0.00      | \$45.48               | \$59.82                           | \$0.00        | \$59.82                           |
| Jul-19 | \$43.44          | \$0.00           | \$44.74   | \$0.00      | \$44.74               | \$77.05                           | \$0.00        | \$77.05                           |
| Aug-19 | \$41.31          | \$0.00           | \$42.55   | \$0.00      | \$42.55               | \$61.70                           | \$0.00        | \$61.70                           |
| Sep-19 | \$43.81          | \$0.00           | \$45.12   | \$0.00      | \$45.12               | \$50.03                           | \$0.00        | \$50.03                           |
| Oct-19 | \$48.16          | \$0.00           | \$49.58   | \$0.00      | \$49.58               | \$52.17                           | \$0.00        | \$52.17                           |
| Nov-19 | \$57.71          | \$0.00           | \$59.44   | \$0.00      | \$59.44               | \$78.69                           | \$0.00        | \$78.69                           |
| Dec-19 | \$76.41          | \$0.00           | \$78.61   | \$0.00      | \$78.61               | \$113.59                          | \$0.00        | \$113.59                          |
| Jan-20 | \$66.85          | \$0.00           | \$68.86   | \$0.00      | \$68.86               | \$81.43                           | \$0.00        | \$81.43                           |
| Feb-20 | \$46.05          | \$0.00           | \$47.43   | \$0.00      | \$47.43               | \$57.21                           | \$0.00        | \$57.21                           |
| Mar-20 | \$41.18          | \$0.00           | \$42.42   | \$0.00      | \$42.42               | \$52.14                           | \$0.00        | \$52.14                           |
| Apr-20 | \$42.39          | \$0.00           | \$43.66   | \$0.00      | \$43.66               | \$54.16                           | \$0.00        | \$54.16                           |
| May-20 | \$43.16          | \$0.00           | \$44.45   | \$0.00      | \$44.45               | \$64.82                           | \$0.00        | \$64.82                           |
| Jun-20 | \$46.23          | \$0.00           | \$47.62   | \$0.00      | \$47.62               | \$79.40                           | \$0.00        | \$79.40                           |
| Jul-20 | \$45.28          | \$0.00           | \$46.63   | \$0.00      | \$46.63               | \$63.55                           | \$0.00        | \$63.55                           |
| Aug-20 | \$43.17          | \$0.00           | \$44.47   | \$0.00      | \$44.47               | \$51.84                           | \$0.00        | \$51.84                           |
| Sep-20 | \$45.79          | \$0.00           | \$47.17   | \$0.00      | \$47.17               | \$49.33                           | \$0.00        | \$49.33                           |
| Oct-20 | \$59.77          | \$0.00           | \$61.57   | \$0.00      | \$61.57               | \$55.62                           | \$0.00        | \$55.62                           |
| Nov-20 | \$75.93          | \$0.00           | \$78.21   | \$0.00      | \$78.21               | \$82.30                           | \$0.00        | \$82.30                           |
| Dec-20 | \$68.03          | \$0.00           | \$70.77   | \$0.00      | \$70.77               | \$116.21                          | \$0.00        | \$116.21                          |
| Jan-21 | \$47.50          | \$0.00           | \$48.93   | \$0.00      | \$48.93               | \$84.01                           | \$0.00        | \$84.01                           |
| Feb-21 | \$42.46          | \$0.00           | \$43.73   | \$0.00      | \$43.73               | \$58.97                           | \$0.00        | \$58.97                           |
| Mar-21 | \$43.83          | \$0.00           | \$45.14   | \$0.00      | \$45.14               | \$54.05                           | \$0.00        | \$54.05                           |
| Apr-21 | \$44.87          | \$0.00           | \$46.21   | \$0.00      | \$46.21               | \$57.52                           | \$0.00        | \$57.52                           |
| May-21 | \$47.65          | \$0.00           | \$49.08   | \$0.00      | \$49.08               | \$66.39                           | \$0.00        | \$66.39                           |
| Jun-21 | \$46.58          | \$0.00           | \$47.98   | \$0.00      | \$47.98               | \$80.70                           | \$0.00        | \$80.70                           |
| Jul-21 | \$44.52          | \$0.00           | \$45.85   | \$0.00      | \$45.85               | \$64.23                           | \$0.00        | \$64.23                           |
| Aug-21 | \$42.52          | \$0.00           | \$43.80   | \$0.00      | \$43.80               | \$52.95                           | \$0.00        | \$52.95                           |
| Sep-21 | \$47.11          | \$0.00           | \$48.53   | \$0.00      | \$48.53               | \$49.50                           | \$0.00        | \$49.50                           |
| Oct-21 | \$61.37          | \$0.00           | \$63.31   | \$0.00      | \$63.31               | \$57.65                           | \$0.00        | \$57.65                           |
| Nov-21 | \$78.48          | \$0.00           | \$80.93   | \$0.00      | \$80.93               | \$83.95                           | \$0.00        | \$83.95                           |
| Dec-21 | \$69.74          | \$0.00           | \$72.76   | \$0.00      | \$72.76               | \$119.63                          | \$0.00        | \$119.63                          |
| Jan-22 | \$49.71          | \$0.00           | \$51.20   | \$0.00      | \$51.20               | \$66.78                           | \$0.00        | \$66.78                           |
| Feb-22 | \$46.58          | \$0.00           | \$48.52   | \$0.00      | \$48.52               | \$61.08                           | \$0.00        | \$61.08                           |
| Mar-22 | \$46.20          | \$0.00           | \$47.58   | \$0.00      | \$47.58               | \$57.11                           | \$0.00        | \$57.11                           |
| Apr-22 | \$47.33          | \$0.00           | \$48.75   | \$0.00      | \$48.75               | \$64.53                           | \$0.00        | \$64.53                           |
| May-22 | \$49.33          | \$0.00           | \$50.53   | \$0.00      | \$50.53               | \$68.31                           | \$0.00        | \$68.31                           |
| Jun-22 | \$46.86          | \$0.00           | \$48.05   | \$0.00      | \$48.05               | \$83.41                           | \$0.00        | \$83.41                           |
| Jul-22 | \$46.65          | \$0.00           | \$48.05   | \$0.00      | \$48.05               | \$65.21                           | \$0.00        | \$65.21                           |
| Aug-22 | \$44.59          | \$0.00           | \$45.92   | \$0.00      | \$45.92               | \$54.87                           | \$0.00        | \$54.87                           |
| Sep-22 | \$49.12          | \$0.00           | \$50.59   | \$0.00      | \$50.59               | \$52.49                           | \$0.00        | \$52.49                           |
| Oct-22 | \$63.57          | \$0.00           | \$65.89   | \$0.00      | \$65.89               | \$60.31                           | \$0.00        | \$60.31                           |
| Nov-22 | \$84.55          | \$0.00           | \$87.08   | \$0.00      | \$87.08               | \$87.08                           | \$0.00        | \$87.08                           |

Off Peak Excess Energy Sales

|        | MassHub Off Peak | Less: ISO NE Out | Sub Total | Less: NB TX | Price at HQ/NB Border |
|--------|------------------|------------------|-----------|-------------|-----------------------|
|        | US\$/MWh         | US\$/MWh         | CADS/MWh  | CADS/MWh    | CADS/MWh              |
| Jan-17 | \$70.73          | \$0.00           | \$72.85   | \$0.00      | \$72.85               |
| Feb-17 | \$63.87          | \$0.00           | \$65.78   | \$0.00      | \$65.78               |
| Mar-17 | \$42.34          | \$0.00           | \$43.61   | \$0.00      | \$43.61               |
| Apr-17 | \$37.69          | \$0.00           | \$38.62   | \$0.00      | \$38.62               |
| May-17 | \$37.74          | \$0.00           | \$38.87   | \$0.00      | \$38.87               |
| Jun-17 | \$37.64          | \$0.00           | \$38.77   | \$0.00      | \$38.77               |
| Jul-17 | \$41.15          | \$0.00           | \$42.39   | \$0.00      | \$42.39               |
| Aug-17 | \$40.72          | \$0.00           | \$41.94   | \$0.00      | \$41.94               |
| Sep-17 | \$39.72          | \$0.00           | \$40.91   | \$0.00      | \$40.91               |
| Oct-17 | \$37.17          | \$0.00           | \$38.59   | \$0.00      | \$38.59               |
| Nov-17 | \$41.31          | \$0.00           | \$42.65   | \$0.00      | \$42.65               |
| Dec-17 | \$55.58          | \$0.00           | \$57.     |             |                       |

|        |          |        |          |        |         |        |         |        |         |
|--------|----------|--------|----------|--------|---------|--------|---------|--------|---------|
| Jan-23 | \$118.47 | \$0.00 | \$122.02 | \$0.00 | \$80.05 | \$0.00 | \$62.45 | \$0.00 | \$82.45 |
| Feb-23 | \$85.93  | \$0.00 | \$88.51  | \$0.00 | \$72.06 | \$0.00 | \$74.22 | \$0.00 | \$74.22 |
| Mar-23 | \$60.49  | \$0.00 | \$62.30  | \$0.00 | \$50.70 | \$0.00 | \$52.22 | \$0.00 | \$52.22 |
| Apr-23 | \$56.55  | \$0.00 | \$58.25  | \$0.00 | \$46.48 | \$0.00 | \$46.84 | \$0.00 | \$46.84 |
| May-23 | \$63.91  | \$0.00 | \$65.82  | \$0.00 | \$47.12 | \$0.00 | \$48.54 | \$0.00 | \$48.54 |
| Jun-23 | \$67.65  | \$0.00 | \$69.68  | \$0.00 | \$48.27 | \$0.00 | \$49.72 | \$0.00 | \$49.72 |
| Jul-23 | \$82.60  | \$0.00 | \$85.08  | \$0.00 | \$50.83 | \$0.00 | \$52.35 | \$0.00 | \$52.35 |
| Aug-23 | \$64.58  | \$0.00 | \$66.52  | \$0.00 | \$50.04 | \$0.00 | \$51.55 | \$0.00 | \$51.55 |
| Sep-23 | \$54.33  | \$0.00 | \$55.96  | \$0.00 | \$47.58 | \$0.00 | \$49.01 | \$0.00 | \$49.01 |
| Oct-23 | \$51.98  | \$0.00 | \$53.54  | \$0.00 | \$46.48 | \$0.00 | \$46.84 | \$0.00 | \$46.84 |
| Nov-23 | \$59.72  | \$0.00 | \$61.51  | \$0.00 | \$50.10 | \$0.00 | \$51.60 | \$0.00 | \$51.60 |
| Dec-23 | \$86.24  | \$0.00 | \$88.82  | \$0.00 | \$65.21 | \$0.00 | \$67.21 | \$0.00 | \$67.21 |
| Jan-24 | \$120.94 | \$0.00 | \$124.46 | \$0.00 | \$81.65 | \$0.00 | \$84.10 | \$0.00 | \$84.10 |
| Feb-24 | \$87.65  | \$0.00 | \$90.28  | \$0.00 | \$73.50 | \$0.00 | \$75.70 | \$0.00 | \$75.70 |
| Mar-24 | \$61.70  | \$0.00 | \$63.55  | \$0.00 | \$51.71 | \$0.00 | \$53.27 | \$0.00 | \$53.27 |
| Apr-24 | \$57.68  | \$0.00 | \$59.41  | \$0.00 | \$46.39 | \$0.00 | \$47.78 | \$0.00 | \$47.78 |
| May-24 | \$69.00  | \$0.00 | \$71.14  | \$0.00 | \$48.07 | \$0.00 | \$49.51 | \$0.00 | \$49.51 |
| Jun-24 | \$84.25  | \$0.00 | \$86.78  | \$0.00 | \$49.34 | \$0.00 | \$50.72 | \$0.00 | \$50.72 |
| Jul-24 | \$66.87  | \$0.00 | \$67.85  | \$0.00 | \$51.84 | \$0.00 | \$53.40 | \$0.00 | \$53.40 |
| Aug-24 | \$55.42  | \$0.00 | \$57.08  | \$0.00 | \$48.53 | \$0.00 | \$49.58 | \$0.00 | \$49.58 |
| Sep-24 | \$53.02  | \$0.00 | \$54.61  | \$0.00 | \$46.39 | \$0.00 | \$47.78 | \$0.00 | \$47.78 |
| Oct-24 | \$60.92  | \$0.00 | \$62.74  | \$0.00 | \$51.10 | \$0.00 | \$52.63 | \$0.00 | \$52.63 |
| Nov-24 | \$87.96  | \$0.00 | \$90.60  | \$0.00 | \$66.56 | \$0.00 | \$68.55 | \$0.00 | \$68.55 |
| Dec-24 | \$123.25 | \$0.00 | \$126.95 | \$0.00 | \$83.28 | \$0.00 | \$85.78 | \$0.00 | \$85.78 |
| Jan-25 | \$89.41  | \$0.00 | \$92.09  | \$0.00 | \$74.97 | \$0.00 | \$77.22 | \$0.00 | \$77.22 |
| Feb-25 | \$62.93  | \$0.00 | \$64.82  | \$0.00 | \$52.75 | \$0.00 | \$54.33 | \$0.00 | \$54.33 |
| Mar-25 | \$58.84  | \$0.00 | \$60.60  | \$0.00 | \$47.31 | \$0.00 | \$48.73 | \$0.00 | \$48.73 |
| Apr-25 | \$66.49  | \$0.00 | \$68.48  | \$0.00 | \$49.03 | \$0.00 | \$50.50 | \$0.00 | \$50.50 |
| May-25 | \$70.38  | \$0.00 | \$72.49  | \$0.00 | \$50.22 | \$0.00 | \$51.73 | \$0.00 | \$51.73 |
| Jun-25 | \$85.94  | \$0.00 | \$88.51  | \$0.00 | \$52.88 | \$0.00 | \$54.47 | \$0.00 | \$54.47 |
| Jul-25 | \$67.19  | \$0.00 | \$69.20  | \$0.00 | \$49.50 | \$0.00 | \$50.99 | \$0.00 | \$50.99 |
| Aug-25 | \$56.53  | \$0.00 | \$58.23  | \$0.00 | \$52.07 | \$0.00 | \$53.63 | \$0.00 | \$53.63 |
| Sep-25 | \$54.08  | \$0.00 | \$55.70  | \$0.00 | \$47.31 | \$0.00 | \$48.73 | \$0.00 | \$48.73 |
| Oct-25 | \$62.13  | \$0.00 | \$64.00  | \$0.00 | \$52.12 | \$0.00 | \$53.69 | \$0.00 | \$53.69 |
| Nov-25 | \$89.72  | \$0.00 | \$92.41  | \$0.00 | \$67.89 | \$0.00 | \$69.92 | \$0.00 | \$69.92 |
| Dec-25 | \$125.72 | \$0.00 | \$129.49 | \$0.00 | \$84.95 | \$0.00 | \$87.49 | \$0.00 | \$87.49 |
| Jan-26 | \$91.19  | \$0.00 | \$93.93  | \$0.00 | \$76.47 | \$0.00 | \$78.76 | \$0.00 | \$78.76 |
| Feb-26 | \$64.19  | \$0.00 | \$66.12  | \$0.00 | \$53.80 | \$0.00 | \$55.42 | \$0.00 | \$55.42 |
| Mar-26 | \$60.01  | \$0.00 | \$61.81  | \$0.00 | \$48.26 | \$0.00 | \$49.71 | \$0.00 | \$49.71 |
| Apr-26 | \$67.82  | \$0.00 | \$69.85  | \$0.00 | \$50.01 | \$0.00 | \$51.51 | \$0.00 | \$51.51 |
| May-26 | \$71.79  | \$0.00 | \$73.94  | \$0.00 | \$51.23 | \$0.00 | \$52.76 | \$0.00 | \$52.76 |
| Jun-26 | \$87.65  | \$0.00 | \$90.28  | \$0.00 | \$53.94 | \$0.00 | \$55.56 | \$0.00 | \$55.56 |
| Jul-26 | \$68.53  | \$0.00 | \$70.59  | \$0.00 | \$53.11 | \$0.00 | \$54.70 | \$0.00 | \$54.70 |
| Aug-26 | \$57.66  | \$0.00 | \$59.39  | \$0.00 | \$50.49 | \$0.00 | \$52.01 | \$0.00 | \$52.01 |
| Sep-26 | \$55.16  | \$0.00 | \$56.82  | \$0.00 | \$48.26 | \$0.00 | \$49.71 | \$0.00 | \$49.71 |
| Oct-26 | \$63.38  | \$0.00 | \$65.28  | \$0.00 | \$53.16 | \$0.00 | \$54.76 | \$0.00 | \$54.76 |
| Nov-26 | \$91.52  | \$0.00 | \$94.26  | \$0.00 | \$69.25 | \$0.00 | \$71.32 | \$0.00 | \$71.32 |
| Dec-26 | \$128.23 | \$0.00 | \$132.08 | \$0.00 | \$86.65 | \$0.00 | \$89.24 | \$0.00 | \$89.24 |
| Jan-27 | \$93.02  | \$0.00 | \$95.81  | \$0.00 | \$78.00 | \$0.00 | \$80.34 | \$0.00 | \$80.34 |
| Feb-27 | \$65.47  | \$0.00 | \$67.44  | \$0.00 | \$54.88 | \$0.00 | \$56.53 | \$0.00 | \$56.53 |
| Mar-27 | \$61.21  | \$0.00 | \$63.05  | \$0.00 | \$49.22 | \$0.00 | \$50.70 | \$0.00 | \$50.70 |
| Apr-27 | \$69.17  | \$0.00 | \$71.25  | \$0.00 | \$51.01 | \$0.00 | \$52.54 | \$0.00 | \$52.54 |
| May-27 | \$73.22  | \$0.00 | \$75.42  | \$0.00 | \$52.25 | \$0.00 | \$53.82 | \$0.00 | \$53.82 |
| Jun-27 | \$88.41  | \$0.00 | \$92.09  | \$0.00 | \$55.02 | \$0.00 | \$56.67 | \$0.00 | \$56.67 |
| Jul-27 | \$69.90  | \$0.00 | \$72.00  | \$0.00 | \$54.17 | \$0.00 | \$55.79 | \$0.00 | \$55.79 |
| Aug-27 | \$58.81  | \$0.00 | \$60.58  | \$0.00 | \$51.50 | \$0.00 | \$53.05 | \$0.00 | \$53.05 |
| Sep-27 | \$56.26  | \$0.00 | \$57.95  | \$0.00 | \$49.23 | \$0.00 | \$50.70 | \$0.00 | \$50.70 |
| Oct-27 | \$64.64  | \$0.00 | \$66.58  | \$0.00 | \$54.23 | \$0.00 | \$55.85 | \$0.00 | \$55.85 |
| Nov-27 | \$93.35  | \$0.00 | \$96.15  | \$0.00 | \$70.63 | \$0.00 | \$72.75 | \$0.00 | \$72.75 |
| Dec-27 | \$130.80 | \$0.00 | \$134.72 | \$0.00 | \$88.38 | \$0.00 | \$91.03 | \$0.00 | \$91.03 |
| Jan-28 | \$94.88  | \$0.00 | \$97.73  | \$0.00 | \$79.56 | \$0.00 | \$81.94 | \$0.00 | \$81.94 |
| Feb-28 | \$66.78  | \$0.00 | \$68.79  | \$0.00 | \$55.98 | \$0.00 | \$57.66 | \$0.00 | \$57.66 |
| Mar-28 | \$62.44  | \$0.00 | \$64.31  | \$0.00 | \$50.21 | \$0.00 | \$51.72 | \$0.00 | \$51.72 |
| Apr-28 | \$70.55  | \$0.00 | \$72.67  | \$0.00 | \$52.03 | \$0.00 | \$53.59 | \$0.00 | \$53.59 |
| May-28 | \$84.69  | \$0.00 | \$86.93  | \$0.00 | \$53.30 | \$0.00 | \$54.90 | \$0.00 | \$54.90 |
| Jun-28 | \$91.20  | \$0.00 | \$93.93  | \$0.00 | \$56.12 | \$0.00 | \$57.80 | \$0.00 | \$57.80 |
| Jul-28 | \$71.30  | \$0.00 | \$73.44  | \$0.00 | \$55.35 | \$0.00 | \$56.91 | \$0.00 | \$56.91 |
| Aug-28 | \$59.89  | \$0.00 | \$61.79  | \$0.00 | \$52.53 | \$0.00 | \$54.11 | \$0.00 | \$54.11 |
| Sep-28 | \$67.39  | \$0.00 | \$69.11  | \$0.00 | \$53.11 | \$0.00 | \$54.72 | \$0.00 | \$54.72 |
| Oct-28 | \$66.94  | \$0.00 | \$67.92  | \$0.00 | \$55.31 | \$0.00 | \$56.57 | \$0.00 | \$56.57 |
| Nov-28 | \$95.21  | \$0.00 | \$98.07  | \$0.00 | \$72.04 | \$0.00 | \$74.20 | \$0.00 | \$74.20 |
| Dec-28 | \$133.41 | \$0.00 | \$137.42 | \$0.00 | \$80.15 | \$0.00 | \$82.85 | \$0.00 | \$82.85 |
| Jan-29 | \$96.78  | \$0.00 | \$99.68  | \$0.00 | \$70.16 | \$0.00 | \$73.10 | \$0.00 | \$73.10 |
| Feb-29 | \$68.12  | \$0.00 | \$70.16  | \$0.00 | \$51.21 | \$0.00 | \$53.81 | \$0.00 | \$53.81 |
| Mar-29 | \$63.69  | \$0.00 | \$65.60  | \$0.00 | \$48.47 | \$0.00 | \$50.25 | \$0.00 | \$50.25 |
| Apr-29 | \$71.97  | \$0.00 | \$74.13  | \$0.00 | \$53.07 | \$0.00 | \$54.66 | \$0.00 | \$54.66 |
| May-29 | \$95.02  | \$0.00 | \$98.47  | \$0.00 | \$74.36 | \$0.00 | \$76.18 | \$0.00 | \$76.18 |
| Jun-29 | \$76.18  | \$0.00 | \$78.47  | \$0.00 | \$59.81 | \$0.00 | \$61.92 | \$0.00 | \$61.92 |
| Jul-29 | \$93.02  | \$0.00 | \$95.81  | \$0.00 | \$74.91 | \$0.00 | \$77.73 | \$0.00 | \$77.73 |
| Aug-29 | \$72.73  | \$0.00 | \$74.91  | \$0.00 | \$53.59 | \$0.00 | \$55.19 | \$0.00 | \$55.19 |
| Sep-29 | \$61.19  | \$0.00 | \$63.03  | \$0.00 | \$48.03 | \$0.00 | \$49.54 | \$0.00 | \$49.54 |
| Oct-29 | \$58.54  | \$0.00 | \$60.29  | \$0.00 | \$51.21 | \$0.00 | \$52.75 | \$0.00 | \$52.75 |

|        |          |          |        |          |          |          |        |          |          |        |          |
|--------|----------|----------|--------|----------|----------|----------|--------|----------|----------|--------|----------|
| Nov-29 | \$67.26  | \$69.27  | \$0.00 | \$69.27  | \$69.27  | \$56.42  | \$0.00 | \$58.11  | \$58.11  | \$0.00 | \$58.11  |
| Dec-29 | \$97.12  | \$100.03 | \$0.00 | \$100.03 | \$100.03 | \$73.48  | \$0.00 | \$75.69  | \$75.69  | \$0.00 | \$75.69  |
| Jan-30 | \$136.08 | \$140.17 | \$0.00 | \$140.17 | \$140.17 | \$91.95  | \$0.00 | \$94.71  | \$94.71  | \$0.00 | \$94.71  |
| Feb-30 | \$98.71  | \$101.67 | \$0.00 | \$101.67 | \$101.67 | \$82.77  | \$0.00 | \$85.25  | \$85.25  | \$0.00 | \$85.25  |
| Mar-30 | \$69.48  | \$71.57  | \$0.00 | \$71.57  | \$71.57  | \$58.24  | \$0.00 | \$59.99  | \$59.99  | \$0.00 | \$59.99  |
| Apr-30 | \$64.96  | \$66.91  | \$0.00 | \$66.91  | \$66.91  | \$52.24  | \$0.00 | \$53.80  | \$53.80  | \$0.00 | \$53.80  |
| May-30 | \$73.41  | \$75.61  | \$0.00 | \$75.61  | \$75.61  | \$54.13  | \$0.00 | \$55.75  | \$55.75  | \$0.00 | \$55.75  |
| Jun-30 | \$77.70  | \$80.04  | \$0.00 | \$80.04  | \$80.04  | \$55.45  | \$0.00 | \$57.11  | \$57.11  | \$0.00 | \$57.11  |
| Jul-30 | \$94.88  | \$97.73  | \$0.00 | \$97.73  | \$97.73  | \$58.38  | \$0.00 | \$60.14  | \$60.14  | \$0.00 | \$60.14  |
| Aug-30 | \$74.18  | \$76.41  | \$0.00 | \$76.41  | \$76.41  | \$57.48  | \$0.00 | \$59.21  | \$59.21  | \$0.00 | \$59.21  |
| Sep-30 | \$62.41  | \$64.29  | \$0.00 | \$64.29  | \$64.29  | \$54.66  | \$0.00 | \$56.30  | \$56.30  | \$0.00 | \$56.30  |
| Oct-30 | \$59.71  | \$61.50  | \$0.00 | \$61.50  | \$61.50  | \$52.74  | \$0.00 | \$53.81  | \$53.81  | \$0.00 | \$53.81  |
| Nov-30 | \$68.60  | \$70.66  | \$0.00 | \$70.66  | \$70.66  | \$57.55  | \$0.00 | \$59.27  | \$59.27  | \$0.00 | \$59.27  |
| Dec-30 | \$99.06  | \$102.03 | \$0.00 | \$102.03 | \$102.03 | \$74.95  | \$0.00 | \$77.20  | \$77.20  | \$0.00 | \$77.20  |
| Jan-31 | \$138.80 | \$142.97 | \$0.00 | \$142.97 | \$142.97 | \$93.79  | \$0.00 | \$96.60  | \$96.60  | \$0.00 | \$96.60  |
| Feb-31 | \$100.69 | \$103.71 | \$0.00 | \$103.71 | \$103.71 | \$84.03  | \$0.00 | \$86.96  | \$86.96  | \$0.00 | \$86.96  |
| Mar-31 | \$70.87  | \$73.00  | \$0.00 | \$73.00  | \$73.00  | \$59.40  | \$0.00 | \$61.18  | \$61.18  | \$0.00 | \$61.18  |
| Apr-31 | \$66.26  | \$68.25  | \$0.00 | \$68.25  | \$68.25  | \$53.38  | \$0.00 | \$54.88  | \$54.88  | \$0.00 | \$54.88  |
| May-31 | \$74.88  | \$77.12  | \$0.00 | \$77.12  | \$77.12  | \$55.31  | \$0.00 | \$56.97  | \$56.97  | \$0.00 | \$56.97  |
| Jun-31 | \$96.78  | \$99.08  | \$0.00 | \$99.08  | \$99.08  | \$61.64  | \$0.00 | \$63.34  | \$63.34  | \$0.00 | \$63.34  |
| Jul-31 | \$75.66  | \$77.93  | \$0.00 | \$77.93  | \$77.93  | \$59.55  | \$0.00 | \$60.39  | \$60.39  | \$0.00 | \$60.39  |
| Aug-31 | \$63.66  | \$65.57  | \$0.00 | \$65.57  | \$65.57  | \$55.75  | \$0.00 | \$57.42  | \$57.42  | \$0.00 | \$57.42  |
| Sep-31 | \$60.90  | \$62.73  | \$0.00 | \$62.73  | \$62.73  | \$53.28  | \$0.00 | \$54.88  | \$54.88  | \$0.00 | \$54.88  |
| Oct-31 | \$69.97  | \$72.07  | \$0.00 | \$72.07  | \$72.07  | \$58.70  | \$0.00 | \$60.46  | \$60.46  | \$0.00 | \$60.46  |
| Nov-31 | \$101.04 | \$104.07 | \$0.00 | \$104.07 | \$104.07 | \$76.45  | \$0.00 | \$78.75  | \$78.75  | \$0.00 | \$78.75  |
| Dec-31 | \$141.58 | \$145.83 | \$0.00 | \$145.83 | \$145.83 | \$95.66  | \$0.00 | \$98.53  | \$98.53  | \$0.00 | \$98.53  |
| Jan-32 | \$102.70 | \$105.78 | \$0.00 | \$105.78 | \$105.78 | \$86.11  | \$0.00 | \$88.70  | \$88.70  | \$0.00 | \$88.70  |
| Feb-32 | \$72.29  | \$74.46  | \$0.00 | \$74.46  | \$74.46  | \$60.59  | \$0.00 | \$62.41  | \$62.41  | \$0.00 | \$62.41  |
| Mar-32 | \$67.58  | \$69.61  | \$0.00 | \$69.61  | \$69.61  | \$54.35  | \$0.00 | \$55.98  | \$55.98  | \$0.00 | \$55.98  |
| Apr-32 | \$76.37  | \$78.66  | \$0.00 | \$78.66  | \$78.66  | \$56.32  | \$0.00 | \$58.01  | \$58.01  | \$0.00 | \$58.01  |
| May-32 | \$80.84  | \$83.27  | \$0.00 | \$83.27  | \$83.27  | \$57.69  | \$0.00 | \$59.42  | \$59.42  | \$0.00 | \$59.42  |
| Jun-32 | \$98.71  | \$101.67 | \$0.00 | \$101.67 | \$101.67 | \$60.74  | \$0.00 | \$62.57  | \$62.57  | \$0.00 | \$62.57  |
| Jul-32 | \$77.18  | \$79.49  | \$0.00 | \$79.49  | \$79.49  | \$59.81  | \$0.00 | \$61.60  | \$61.60  | \$0.00 | \$61.60  |
| Sep-32 | \$64.93  | \$66.88  | \$0.00 | \$66.88  | \$66.88  | \$56.87  | \$0.00 | \$58.57  | \$58.57  | \$0.00 | \$58.57  |
| Oct-32 | \$62.12  | \$63.98  | \$0.00 | \$63.98  | \$63.98  | \$54.35  | \$0.00 | \$55.98  | \$55.98  | \$0.00 | \$55.98  |
| Nov-32 | \$71.37  | \$73.51  | \$0.00 | \$73.51  | \$73.51  | \$59.87  | \$0.00 | \$61.67  | \$61.67  | \$0.00 | \$61.67  |
| Dec-32 | \$103.06 | \$106.15 | \$0.00 | \$106.15 | \$106.15 | \$77.98  | \$0.00 | \$80.32  | \$80.32  | \$0.00 | \$80.32  |
| Jan-33 | \$144.41 | \$148.74 | \$0.00 | \$148.74 | \$148.74 | \$97.58  | \$0.00 | \$100.50 | \$100.50 | \$0.00 | \$100.50 |
| Feb-33 | \$104.75 | \$107.90 | \$0.00 | \$107.90 | \$107.90 | \$87.84  | \$0.00 | \$90.47  | \$90.47  | \$0.00 | \$90.47  |
| Mar-33 | \$73.73  | \$75.95  | \$0.00 | \$75.95  | \$75.95  | \$61.80  | \$0.00 | \$63.66  | \$63.66  | \$0.00 | \$63.66  |
| Apr-33 | \$68.94  | \$71.00  | \$0.00 | \$71.00  | \$71.00  | \$55.43  | \$0.00 | \$57.10  | \$57.10  | \$0.00 | \$57.10  |
| May-33 | \$77.90  | \$80.24  | \$0.00 | \$80.24  | \$80.24  | \$57.44  | \$0.00 | \$59.17  | \$59.17  | \$0.00 | \$59.17  |
| Jun-33 | \$82.46  | \$84.93  | \$0.00 | \$84.93  | \$84.93  | \$61.96  | \$0.00 | \$63.82  | \$63.82  | \$0.00 | \$63.82  |
| Jul-33 | \$100.69 | \$103.71 | \$0.00 | \$103.71 | \$103.71 | \$81.08  | \$0.00 | \$83.80  | \$83.80  | \$0.00 | \$83.80  |
| Aug-33 | \$78.72  | \$81.08  | \$0.00 | \$81.08  | \$81.08  | \$61.00  | \$0.00 | \$62.83  | \$62.83  | \$0.00 | \$62.83  |
| Sep-33 | \$66.23  | \$68.22  | \$0.00 | \$68.22  | \$68.22  | \$58.00  | \$0.00 | \$59.74  | \$59.74  | \$0.00 | \$59.74  |
| Oct-33 | \$63.36  | \$65.26  | \$0.00 | \$65.26  | \$65.26  | \$55.44  | \$0.00 | \$57.10  | \$57.10  | \$0.00 | \$57.10  |
| Nov-33 | \$72.80  | \$74.98  | \$0.00 | \$74.98  | \$74.98  | \$61.07  | \$0.00 | \$62.90  | \$62.90  | \$0.00 | \$62.90  |
| Dec-33 | \$105.12 | \$108.28 | \$0.00 | \$108.28 | \$108.28 | \$79.54  | \$0.00 | \$81.93  | \$81.93  | \$0.00 | \$81.93  |
| Jan-34 | \$147.30 | \$151.72 | \$0.00 | \$151.72 | \$151.72 | \$99.53  | \$0.00 | \$102.51 | \$102.51 | \$0.00 | \$102.51 |
| Feb-34 | \$106.85 | \$110.05 | \$0.00 | \$110.05 | \$110.05 | \$89.59  | \$0.00 | \$92.28  | \$92.28  | \$0.00 | \$92.28  |
| Mar-34 | \$75.21  | \$77.47  | \$0.00 | \$77.47  | \$77.47  | \$63.04  | \$0.00 | \$64.93  | \$64.93  | \$0.00 | \$64.93  |
| Apr-34 | \$70.31  | \$72.42  | \$0.00 | \$72.42  | \$72.42  | \$65.54  | \$0.00 | \$67.44  | \$67.44  | \$0.00 | \$67.44  |
| May-34 | \$79.46  | \$81.84  | \$0.00 | \$81.84  | \$81.84  | \$68.59  | \$0.00 | \$70.35  | \$70.35  | \$0.00 | \$70.35  |
| Jun-34 | \$84.11  | \$86.63  | \$0.00 | \$86.63  | \$86.63  | \$60.02  | \$0.00 | \$61.82  | \$61.82  | \$0.00 | \$61.82  |
| Jul-34 | \$102.70 | \$105.78 | \$0.00 | \$105.78 | \$105.78 | \$83.20  | \$0.00 | \$85.09  | \$85.09  | \$0.00 | \$85.09  |
| Aug-34 | \$80.30  | \$82.70  | \$0.00 | \$82.70  | \$82.70  | \$69.16  | \$0.00 | \$70.94  | \$70.94  | \$0.00 | \$70.94  |
| Sep-34 | \$67.56  | \$69.58  | \$0.00 | \$69.58  | \$69.58  | \$56.55  | \$0.00 | \$58.24  | \$58.24  | \$0.00 | \$58.24  |
| Oct-34 | \$64.63  | \$66.57  | \$0.00 | \$66.57  | \$66.57  | \$56.29  | \$0.00 | \$57.48  | \$57.48  | \$0.00 | \$57.48  |
| Nov-34 | \$74.26  | \$76.48  | \$0.00 | \$76.48  | \$76.48  | \$61.13  | \$0.00 | \$63.57  | \$63.57  | \$0.00 | \$63.57  |
| Dec-34 | \$107.32 | \$110.44 | \$0.00 | \$110.44 | \$110.44 | \$81.33  | \$0.00 | \$83.57  | \$83.57  | \$0.00 | \$83.57  |
| Jan-35 | \$150.25 | \$154.75 | \$0.00 | \$154.75 | \$154.75 | \$101.52 | \$0.00 | \$104.56 | \$104.56 | \$0.00 | \$104.56 |
| Feb-35 | \$108.99 | \$112.26 | \$0.00 | \$112.26 | \$112.26 | \$91.38  | \$0.00 | \$94.13  | \$94.13  | \$0.00 | \$94.13  |
| Mar-35 | \$76.71  | \$79.01  | \$0.00 | \$79.01  | \$79.01  | \$64.30  | \$0.00 | \$66.23  | \$66.23  | \$0.00 | \$66.23  |
| Apr-35 | \$71.72  | \$73.87  | \$0.00 | \$73.87  | \$73.87  | \$57.67  | \$0.00 | \$59.40  | \$59.40  | \$0.00 | \$59.40  |
| May-35 | \$81.05  | \$83.48  | \$0.00 | \$83.48  | \$83.48  | \$59.76  | \$0.00 | \$61.56  | \$61.56  | \$0.00 | \$61.56  |
| Jun-35 | \$86.79  | \$88.37  | \$0.00 | \$88.37  | \$88.37  | \$61.22  | \$0.00 | \$63.06  | \$63.06  | \$0.00 | \$63.06  |
| Jul-35 | \$104.75 | \$107.90 | \$0.00 | \$107.90 | \$107.90 | \$84.46  | \$0.00 | \$86.40  | \$86.40  | \$0.00 | \$86.40  |
| Sep-35 | \$81.40  | \$84.36  | \$0.00 | \$84.36  | \$84.36  | \$63.67  | \$0.00 | \$65.37  | \$65.37  | \$0.00 | \$65.37  |
| Oct-35 | \$66.91  | \$69.98  | \$0.00 | \$69.98  | \$69.98  | \$60.35  | \$0.00 | \$62.16  | \$62.16  | \$0.00 | \$62.16  |
| Nov-35 | \$65.92  | \$67.90  | \$0.00 | \$67.90  | \$67.90  | \$57.08  | \$0.00 | \$59.41  | \$59.41  | \$0.00 | \$59.41  |
| Dec-35 | \$109.37 | \$112.65 | \$0.00 | \$112.65 | \$112.65 | \$83.54  | \$0.00 | \$85.44  | \$85.44  | \$0.00 | \$85.44  |
| Jan-36 | \$133.25 | \$137.85 | \$0.00 | \$137.85 | \$137.85 | \$93.21  | \$0.00 | \$95.24  | \$95.24  | \$0.00 | \$95.24  |
| Feb-36 | \$111.17 | \$114.50 | \$0.00 | \$114.50 | \$114.50 | \$80.60  | \$0.00 | \$82.55  | \$82.55  | \$0.00 | \$82.55  |
| Mar-36 | \$78.25  | \$80.60  | \$0.00 | \$80.60  | \$80.60  | \$65.59  | \$0.00 | \$67.55  | \$67.55  | \$0.00 | \$67.55  |
| Apr-36 | \$73.15  | \$75.35  | \$0.00 | \$75.35  | \$75.35  | \$60.96  | \$0.00 | \$62.79  | \$62.79  | \$0.00 | \$62.79  |
| May-36 | \$82.67  | \$85.15  | \$0.00 | \$85.15  | \$85.15  | \$68.83  | \$0.00 | \$70.55  | \$70.55  | \$0.00 | \$70.55  |
| Jun-36 | \$87.51  | \$90.13  | \$0.00 | \$90.13  | \$90.13  | \$72.45  | \$0.00 | \$74.32  | \$74.32  | \$0.00 | \$74.32  |
| Jul-36 | \$106.85 | \$110.06 | \$0.00 | \$110.06 | \$110.06 | \$85.05  | \$0.00 | \$87.72  | \$87.72  | \$0.00 | \$87.72  |
| Aug-36 | \$83.54  | \$86.05  | \$0.00 | \$86.05  | \$86.05  | \$64.74  | \$0.00 | \$66.68  | \$66.68  | \$0.00 | \$66.68  |

|        |          |        |          |        |          |          |        |          |        |          |
|--------|----------|--------|----------|--------|----------|----------|--------|----------|--------|----------|
| Sep-36 | \$70.29  | \$0.00 | \$72.40  | \$0.00 | \$72.40  | \$61.55  | \$0.00 | \$63.40  | \$0.00 | \$63.40  |
| Oct-36 | \$67.24  | \$0.00 | \$69.26  | \$0.00 | \$69.26  | \$58.83  | \$0.00 | \$60.59  | \$0.00 | \$60.59  |
| Nov-36 | \$77.26  | \$0.00 | \$79.57  | \$0.00 | \$79.57  | \$64.81  | \$0.00 | \$66.75  | \$0.00 | \$66.75  |
| Dec-36 | \$111.56 | \$0.00 | \$114.90 | \$0.00 | \$114.90 | \$84.41  | \$0.00 | \$86.94  | \$0.00 | \$86.94  |
| Jan-37 | \$156.32 | \$0.00 | \$161.01 | \$0.00 | \$161.01 | \$105.62 | \$0.00 | \$108.79 | \$0.00 | \$108.79 |
| Feb-37 | \$113.39 | \$0.00 | \$116.79 | \$0.00 | \$116.79 | \$95.08  | \$0.00 | \$97.93  | \$0.00 | \$97.93  |
| Mar-37 | \$79.81  | \$0.00 | \$82.21  | \$0.00 | \$82.21  | \$66.90  | \$0.00 | \$68.90  | \$0.00 | \$68.90  |
| Apr-37 | \$74.62  | \$0.00 | \$76.86  | \$0.00 | \$76.86  | \$60.00  | \$0.00 | \$61.80  | \$0.00 | \$61.80  |
| May-37 | \$84.32  | \$0.00 | \$86.85  | \$0.00 | \$86.85  | \$62.18  | \$0.00 | \$64.04  | \$0.00 | \$64.04  |
| Jun-37 | \$86.26  | \$0.00 | \$91.94  | \$0.00 | \$91.94  | \$63.69  | \$0.00 | \$65.61  | \$0.00 | \$65.61  |
| Jul-37 | \$108.99 | \$0.00 | \$112.26 | \$0.00 | \$112.26 | \$67.07  | \$0.00 | \$69.08  | \$0.00 | \$69.08  |
| Aug-37 | \$85.21  | \$0.00 | \$87.77  | \$0.00 | \$87.77  | \$66.03  | \$0.00 | \$68.01  | \$0.00 | \$68.01  |
| Sep-37 | \$71.69  | \$0.00 | \$73.84  | \$0.00 | \$73.84  | \$62.78  | \$0.00 | \$64.67  | \$0.00 | \$64.67  |
| Oct-37 | \$86.59  | \$0.00 | \$90.64  | \$0.00 | \$90.64  | \$60.01  | \$0.00 | \$61.81  | \$0.00 | \$61.81  |
| Nov-37 | \$78.80  | \$0.00 | \$81.17  | \$0.00 | \$81.17  | \$61.17  | \$0.00 | \$63.09  | \$0.00 | \$63.09  |
| Dec-37 | \$113.79 | \$0.00 | \$117.20 | \$0.00 | \$117.20 | \$86.10  | \$0.00 | \$88.68  | \$0.00 | \$88.68  |
| Jan-38 | \$159.44 | \$0.00 | \$164.23 | \$0.00 | \$164.23 | \$107.73 | \$0.00 | \$110.96 | \$0.00 | \$110.96 |
| Feb-38 | \$115.66 | \$0.00 | \$119.13 | \$0.00 | \$119.13 | \$96.98  | \$0.00 | \$99.89  | \$0.00 | \$99.89  |
| Mar-38 | \$81.41  | \$0.00 | \$83.85  | \$0.00 | \$83.85  | \$68.24  | \$0.00 | \$70.28  | \$0.00 | \$70.28  |
| Apr-38 | \$76.11  | \$0.00 | \$78.39  | \$0.00 | \$78.39  | \$61.20  | \$0.00 | \$63.04  | \$0.00 | \$63.04  |
| May-38 | \$86.01  | \$0.00 | \$88.59  | \$0.00 | \$88.59  | \$63.42  | \$0.00 | \$65.32  | \$0.00 | \$65.32  |
| Jun-38 | \$91.04  | \$0.00 | \$93.77  | \$0.00 | \$93.77  | \$64.97  | \$0.00 | \$66.92  | \$0.00 | \$66.92  |
| Jul-38 | \$111.17 | \$0.00 | \$114.50 | \$0.00 | \$114.50 | \$68.41  | \$0.00 | \$70.46  | \$0.00 | \$70.46  |
| Aug-38 | \$86.91  | \$0.00 | \$89.52  | \$0.00 | \$89.52  | \$67.35  | \$0.00 | \$69.37  | \$0.00 | \$69.37  |
| Sep-38 | \$73.13  | \$0.00 | \$75.32  | \$0.00 | \$75.32  | \$64.04  | \$0.00 | \$66.30  | \$0.00 | \$66.30  |
| Oct-38 | \$69.96  | \$0.00 | \$72.06  | \$0.00 | \$72.06  | \$61.21  | \$0.00 | \$63.04  | \$0.00 | \$63.04  |
| Nov-38 | \$80.38  | \$0.00 | \$82.79  | \$0.00 | \$82.79  | \$67.43  | \$0.00 | \$69.45  | \$0.00 | \$69.45  |
| Dec-38 | \$116.06 | \$0.00 | \$119.55 | \$0.00 | \$119.55 | \$87.82  | \$0.00 | \$90.45  | \$0.00 | \$90.45  |
| Jan-39 | \$162.63 | \$0.00 | \$167.51 | \$0.00 | \$167.51 | \$109.89 | \$0.00 | \$113.18 | \$0.00 | \$113.18 |
| Feb-39 | \$117.97 | \$0.00 | \$121.51 | \$0.00 | \$121.51 | \$98.92  | \$0.00 | \$101.89 | \$0.00 | \$101.89 |
| Mar-39 | \$83.04  | \$0.00 | \$85.53  | \$0.00 | \$85.53  | \$69.60  | \$0.00 | \$71.69  | \$0.00 | \$71.69  |
| Apr-39 | \$77.63  | \$0.00 | \$79.96  | \$0.00 | \$79.96  | \$62.43  | \$0.00 | \$64.30  | \$0.00 | \$64.30  |
| May-39 | \$92.86  | \$0.00 | \$95.65  | \$0.00 | \$95.65  | \$66.27  | \$0.00 | \$68.26  | \$0.00 | \$68.26  |
| Jun-39 | \$113.39 | \$0.00 | \$116.79 | \$0.00 | \$116.79 | \$69.78  | \$0.00 | \$71.87  | \$0.00 | \$71.87  |
| Jul-39 | \$88.65  | \$0.00 | \$91.31  | \$0.00 | \$91.31  | \$68.70  | \$0.00 | \$70.76  | \$0.00 | \$70.76  |
| Aug-39 | \$74.59  | \$0.00 | \$76.83  | \$0.00 | \$76.83  | \$65.32  | \$0.00 | \$67.28  | \$0.00 | \$67.28  |
| Sep-39 | \$71.36  | \$0.00 | \$73.50  | \$0.00 | \$73.50  | \$62.43  | \$0.00 | \$64.30  | \$0.00 | \$64.30  |
| Oct-39 | \$81.99  | \$0.00 | \$84.44  | \$0.00 | \$84.44  | \$68.77  | \$0.00 | \$70.84  | \$0.00 | \$70.84  |
| Nov-39 | \$118.38 | \$0.00 | \$121.94 | \$0.00 | \$121.94 | \$89.58  | \$0.00 | \$92.26  | \$0.00 | \$92.26  |
| Dec-39 | \$165.88 | \$0.00 | \$170.86 | \$0.00 | \$170.86 | \$112.08 | \$0.00 | \$115.45 | \$0.00 | \$115.45 |
| Jan-40 | \$120.33 | \$0.00 | \$123.94 | \$0.00 | \$123.94 | \$100.90 | \$0.00 | \$103.92 | \$0.00 | \$103.92 |
| Feb-40 | \$84.70  | \$0.00 | \$87.24  | \$0.00 | \$87.24  | \$70.99  | \$0.00 | \$73.12  | \$0.00 | \$73.12  |
| Mar-40 | \$79.18  | \$0.00 | \$81.56  | \$0.00 | \$81.56  | \$63.68  | \$0.00 | \$65.59  | \$0.00 | \$65.59  |
| Apr-40 | \$89.48  | \$0.00 | \$92.17  | \$0.00 | \$92.17  | \$65.98  | \$0.00 | \$67.96  | \$0.00 | \$67.96  |
| May-40 | \$94.72  | \$0.00 | \$97.56  | \$0.00 | \$97.56  | \$67.59  | \$0.00 | \$69.62  | \$0.00 | \$69.62  |
| Jun-40 | \$115.66 | \$0.00 | \$119.13 | \$0.00 | \$119.13 | \$71.17  | \$0.00 | \$73.31  | \$0.00 | \$73.31  |
| Jul-40 | \$90.43  | \$0.00 | \$93.14  | \$0.00 | \$93.14  | \$70.07  | \$0.00 | \$72.18  | \$0.00 | \$72.18  |
| Aug-40 | \$76.08  | \$0.00 | \$78.36  | \$0.00 | \$78.36  | \$66.63  | \$0.00 | \$68.63  | \$0.00 | \$68.63  |
| Sep-40 | \$72.78  | \$0.00 | \$74.97  | \$0.00 | \$74.97  | \$63.68  | \$0.00 | \$65.59  | \$0.00 | \$65.59  |
| Oct-40 | \$83.62  | \$0.00 | \$86.13  | \$0.00 | \$86.13  | \$70.15  | \$0.00 | \$72.25  | \$0.00 | \$72.25  |
| Nov-40 | \$120.75 | \$0.00 | \$124.38 | \$0.00 | \$124.38 | \$91.37  | \$0.00 | \$94.11  | \$0.00 | \$94.11  |
| Dec-40 |          |        |          |        |          |          |        |          |        |          |

Levelized Prices

6.0%  
0.5%

Average Prices  
Base of price assumptions:

HQ Sales  
Price backed up to HQ/US Border  
Price = HQS Hub MINUS ISO Charges MINUS New NE Tx  
EQUALS Price at NB/PL Border  
No adder for transmission as it is included in our capital investment  
EQUALS Price at US border

\$57.07  
\$79.42

\$58.79  
\$81.80

\$58.79  
\$81.80

\$63.61  
\$60.77

\$63.61  
\$60.77

\$44.92  
\$62.59

| Less: Tx to NS<br>NB Tx Charges are paid for as<br>part of the investment<br>Investment source not added<br>here | Net Price Off Peak<br>Price<br>CAD\$/MWh |
|--|--|
| \$0.00   | \$72.85                                  |
| \$0.00   | \$65.78                                  |
| \$0.00   | \$43.61                                  |
| \$0.00   | \$38.62                                  |
| \$0.00   | \$38.87                                  |
| \$0.00   | \$38.77                                  |
| \$0.00   | \$42.39                                  |
| \$0.00   | \$41.94                                  |
| \$0.00   | \$40.91                                  |
| \$0.00   | \$38.29                                  |
| \$0.00   | \$42.65                                  |
| \$0.00   | \$73.25                                  |
| \$0.00   | \$73.57                                  |
| \$0.00   | \$66.16                                  |
| \$0.00   | \$44.33                                  |
| \$0.00   | \$39.30                                  |
| \$0.00   | \$40.10                                  |
| \$0.00   | \$40.11                                  |
| \$0.00   | \$44.06                                  |
| \$0.00   | \$43.44                                  |
| \$0.00   | \$41.66                                  |
| \$0.00   | \$39.31                                  |
| \$0.00   | \$43.63                                  |
| \$0.00   | \$57.84                                  |
| \$0.00   | \$73.94                                  |
| \$0.00   | \$66.49                                  |
| \$0.00   | \$45.29                                  |
| \$0.00   | \$40.31                                  |
| \$0.00   | \$41.22                                  |
| \$0.00   | \$41.52                                  |
| \$0.00   | \$45.48                                  |
| \$0.00   | \$44.74                                  |
| \$0.00   | \$42.55                                  |
| \$0.00   | \$40.58                                  |
| \$0.00   | \$45.12                                  |
| \$0.00   | \$59.44                                  |
| \$0.00   | \$76.41                                  |
| \$0.00   | \$68.86                                  |
| \$0.00   | \$47.43                                  |
| \$0.00   | \$42.42                                  |
| \$0.00   | \$43.66                                  |
| \$0.00   | \$44.45                                  |
| \$0.00   | \$47.62                                  |
| \$0.00   | \$46.63                                  |
| \$0.00   | \$44.47                                  |
| \$0.00   | \$42.56                                  |
| \$0.00   | \$47.17                                  |
| \$0.00   | \$61.57                                  |
| \$0.00   | \$78.21                                  |
| \$0.00   | \$70.07                                  |
| \$0.00   | \$48.93                                  |
| \$0.00   | \$43.73                                  |
| \$0.00   | \$45.14                                  |
| \$0.00   | \$46.21                                  |
| \$0.00   | \$49.08                                  |
| \$0.00   | \$47.98                                  |
| \$0.00   | \$45.85                                  |
| \$0.00   | \$43.80                                  |
| \$0.00   | \$48.53                                  |
| \$0.00   | \$63.21                                  |
| \$0.00   | \$60.83                                  |
| \$0.00   | \$72.76                                  |
| \$0.00   | \$51.20                                  |
| \$0.00   | \$45.92                                  |
| \$0.00   | \$47.56                                  |
| \$0.00   | \$46.75                                  |
| \$0.00   | \$51.33                                  |
| \$0.00   | \$50.53                                  |
| \$0.00   | \$48.05                                  |
| \$0.00   | \$45.92                                  |
| \$0.00   | \$50.59                                  |
| \$0.00   | \$65.89                                  |

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|          |        |
|----------|--------|
| \$82,455 | \$0.00 |
| \$74,222 | \$0.00 |
| \$52,222 | \$0.00 |
| \$46,884 | \$0.00 |
| \$48,854 | \$0.00 |
| \$49,972 | \$0.00 |
| \$52,355 | \$0.00 |
| \$51,155 | \$0.00 |
| \$49,011 | \$0.00 |
| \$46,884 | \$0.00 |
| \$51,160 | \$0.00 |
| \$67,721 | \$0.00 |
| \$84,110 | \$0.00 |
| \$75,700 | \$0.00 |
| \$63,277 | \$0.00 |
| \$47,778 | \$0.00 |
| \$49,151 | \$0.00 |
| \$60,771 | \$0.00 |
| \$63,240 | \$0.00 |
| \$43,168 | \$0.00 |
| \$49,939 | \$0.00 |
| \$47,778 | \$0.00 |
| \$52,063 | \$0.00 |
| \$66,555 | \$0.00 |
| \$85,778 | \$0.00 |
| \$77,222 | \$0.00 |
| \$54,333 | \$0.00 |
| \$48,773 | \$0.00 |
| \$50,500 | \$0.00 |
| \$51,173 | \$0.00 |
| \$54,477 | \$0.00 |
| \$53,663 | \$0.00 |
| \$50,999 | \$0.00 |
| \$48,773 | \$0.00 |
| \$53,669 | \$0.00 |
| \$69,992 | \$0.00 |
| \$87,749 | \$0.00 |
| \$78,776 | \$0.00 |
| \$55,442 | \$0.00 |
| \$49,771 | \$0.00 |
| \$51,151 | \$0.00 |
| \$52,276 | \$0.00 |
| \$55,556 | \$0.00 |
| \$54,770 | \$0.00 |
| \$52,011 | \$0.00 |
| \$49,771 | \$0.00 |
| \$54,776 | \$0.00 |
| \$71,132 | \$0.00 |
| \$89,244 | \$0.00 |
| \$80,344 | \$0.00 |
| \$56,653 | \$0.00 |
| \$50,770 | \$0.00 |
| \$52,554 | \$0.00 |
| \$53,882 | \$0.00 |
| \$56,677 | \$0.00 |
| \$55,779 | \$0.00 |
| \$53,005 | \$0.00 |
| \$50,770 | \$0.00 |
| \$55,885 | \$0.00 |
| \$72,775 | \$0.00 |
| \$91,003 | \$0.00 |
| \$81,994 | \$0.00 |
| \$57,666 | \$0.00 |
| \$51,772 | \$0.00 |
| \$63,559 | \$0.00 |
| \$54,900 | \$0.00 |
| \$57,800 | \$0.00 |
| \$56,681 | \$0.00 |
| \$54,111 | \$0.00 |
| \$51,772 | \$0.00 |
| \$56,507 | \$0.00 |
| \$74,220 | \$0.00 |
| \$92,283 | \$0.00 |
| \$83,556 | \$0.00 |
| \$58,881 | \$0.00 |
| \$52,775 | \$0.00 |
| \$54,666 | \$0.00 |
| \$55,999 | \$0.00 |
| \$58,996 | \$0.00 |
| \$58,005 | \$0.00 |
| \$55,119 | \$0.00 |
| \$52,775 | \$0.00 |

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|        |          |
|--------|----------|
| \$0.00 | \$58.11  |
| \$0.00 | \$75.69  |
| \$0.00 | \$94.71  |
| \$0.00 | \$85.25  |
| \$0.00 | \$59.99  |
| \$0.00 | \$53.80  |
| \$0.00 | \$55.75  |
| \$0.00 | \$57.11  |
| \$0.00 | \$60.14  |
| \$0.00 | \$59.21  |
| \$0.00 | \$56.30  |
| \$0.00 | \$53.81  |
| \$0.00 | \$59.27  |
| \$0.00 | \$77.20  |
| \$0.00 | \$96.60  |
| \$0.00 | \$86.96  |
| \$0.00 | \$61.18  |
| \$0.00 | \$64.88  |
| \$0.00 | \$66.87  |
| \$0.00 | \$58.26  |
| \$0.00 | \$61.34  |
| \$0.00 | \$60.39  |
| \$0.00 | \$77.42  |
| \$0.00 | \$54.86  |
| \$0.00 | \$60.46  |
| \$0.00 | \$78.75  |
| \$0.00 | \$98.53  |
| \$0.00 | \$88.70  |
| \$0.00 | \$62.41  |
| \$0.00 | \$55.98  |
| \$0.00 | \$58.01  |
| \$0.00 | \$59.42  |
| \$0.00 | \$62.57  |
| \$0.00 | \$61.60  |
| \$0.00 | \$58.57  |
| \$0.00 | \$55.98  |
| \$0.00 | \$61.67  |
| \$0.00 | \$80.32  |
| \$0.00 | \$100.50 |
| \$0.00 | \$90.47  |
| \$0.00 | \$63.66  |
| \$0.00 | \$57.10  |
| \$0.00 | \$59.17  |
| \$0.00 | \$60.61  |
| \$0.00 | \$63.82  |
| \$0.00 | \$62.83  |
| \$0.00 | \$59.74  |
| \$0.00 | \$57.10  |
| \$0.00 | \$62.90  |
| \$0.00 | \$81.93  |
| \$0.00 | \$102.51 |
| \$0.00 | \$92.28  |
| \$0.00 | \$64.93  |
| \$0.00 | \$58.24  |
| \$0.00 | \$60.35  |
| \$0.00 | \$61.82  |
| \$0.00 | \$65.09  |
| \$0.00 | \$64.09  |
| \$0.00 | \$60.94  |
| \$0.00 | \$58.24  |
| \$0.00 | \$64.16  |
| \$0.00 | \$83.57  |
| \$0.00 | \$104.56 |
| \$0.00 | \$94.13  |
| \$0.00 | \$66.23  |
| \$0.00 | \$59.40  |
| \$0.00 | \$61.56  |
| \$0.00 | \$63.06  |
| \$0.00 | \$66.40  |
| \$0.00 | \$65.37  |
| \$0.00 | \$62.16  |
| \$0.00 | \$59.41  |
| \$0.00 | \$65.44  |
| \$0.00 | \$85.24  |
| \$0.00 | \$106.66 |
| \$0.00 | \$96.01  |
| \$0.00 | \$67.55  |
| \$0.00 | \$60.59  |
| \$0.00 | \$62.79  |
| \$0.00 | \$64.32  |
| \$0.00 | \$67.72  |
| \$0.00 | \$66.68  |

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|        |          |
|--------|----------|
| \$0.00 | \$63.40  |
| \$0.00 | \$60.59  |
| \$0.00 | \$66.75  |
| \$0.00 | \$86.94  |
| \$0.00 | \$108.79 |
| \$0.00 | \$97.93  |
| \$0.00 | \$68.90  |
| \$0.00 | \$61.80  |
| \$0.00 | \$64.04  |
| \$0.00 | \$65.61  |
| \$0.00 | \$69.08  |
| \$0.00 | \$68.01  |
| \$0.00 | \$64.07  |
| \$0.00 | \$61.81  |
| \$0.00 | \$68.09  |
| \$0.00 | \$88.66  |
| \$0.00 | \$110.96 |
| \$0.00 | \$99.89  |
| \$0.00 | \$70.28  |
| \$0.00 | \$63.04  |
| \$0.00 | \$65.32  |
| \$0.00 | \$66.92  |
| \$0.00 | \$70.46  |
| \$0.00 | \$69.37  |
| \$0.00 | \$65.96  |
| \$0.00 | \$63.04  |
| \$0.00 | \$69.45  |
| \$0.00 | \$90.45  |
| \$0.00 | \$113.18 |
| \$0.00 | \$101.89 |
| \$0.00 | \$71.69  |
| \$0.00 | \$64.30  |
| \$0.00 | \$66.63  |
| \$0.00 | \$68.26  |
| \$0.00 | \$71.87  |
| \$0.00 | \$70.76  |
| \$0.00 | \$67.28  |
| \$0.00 | \$64.30  |
| \$0.00 | \$70.84  |
| \$0.00 | \$92.26  |
| \$0.00 | \$115.45 |
| \$0.00 | \$103.92 |
| \$0.00 | \$73.12  |
| \$0.00 | \$65.59  |
| \$0.00 | \$67.96  |
| \$0.00 | \$69.62  |
| \$0.00 | \$73.31  |
| \$0.00 | \$72.18  |
| \$0.00 | \$68.63  |
| \$0.00 | \$65.59  |
| \$0.00 | \$72.25  |
| \$0.00 | \$94.11  |

\$44.92  
\$62.59



## NSPI Transmission Costs Under NB OATT

### Base Case - No Upgrades to the NB System

|  |               | 2003/04 | 2008/09 | 2015/16 | 2050/51 |       |       |
|--|---------------|---------|---------|---------|---------|-------|-------|
| <b>Capital upgrades (\$M)</b>            |               |         |         |         |         |       |       |
| Project                                  |               | Base    | IPL/NRI | HQ/NS   |         |       |       |
| Total Cost (NS#1+HQ#3)                   | 1             |         | 75      |         | 0       |       |       |
| NS Tariff Share                          | 2             |         |         |         | 0       |       |       |
| Net NB Tariff Cost                       | 3=1-2         |         | 75      |         | 0       |       |       |
| <b>Revenue Requirements (\$M)</b>        |               |         |         |         |         |       |       |
| Transmission Service Rev Req             | 4=1-2-3       | 80.5    | 91.0    | 99.4    | 155.2   |       |       |
| <i>Ancillary Services</i>                |               |         |         |         |         |       |       |
| System Control (Sched 1)                 | 5             | 4.5     | 7.9     | 9.1     | 18.1    |       |       |
| Voltage Control (Sched 2)                | 6             | 5.6     | 6.3     | 7.2     | 14.4    |       |       |
| Total Compulsory AS                      | 7=5+6         | 10.1    | 14.2    | 16.3    | 32.5    |       |       |
| <b>Usage (MW)</b>                        |               |         |         |         |         |       |       |
| Network                                  | 8             | 2100    | 2100    | 1900    | 2262    |       |       |
| Long term firm                           | 9             | 720     | 1080    | 1080    | 1080    |       |       |
| Short term equivalent                    | 10            | 300     | 250     | 200     | 200     |       |       |
| Total usage                              | 11=8+9+10     | 3120    | 3430    | 3180    | 3542    |       |       |
| <b>Tariffs (\$/kW-yr)</b>                |               |         |         |         |         |       |       |
| Transmission Service                     | 12=4/11*1000  | 25.8    | 26.5    | 31.3    | 43.81   | 44.14 | 0.99% |
| Ancillary Services                       | 13=7/11*1000  | 3.24    | 4.13    | 5.1     | 9.18    |       |       |
| <b>Transmission Customer Costs (\$M)</b> |               |         |         |         |         |       |       |
| Total Reservations                       | 14=11         |         |         | 3180    | 3542    |       |       |
| Tariff Annual charges                    | 15=14*12/1000 |         |         | 99.4    | 155.2   |       |       |
| Uniform Escalation from 2015             | 15            |         |         | 1.300%  |         |       |       |
| 2015 NPV Tariff Cost                     | 16=npv(15)    |         |         | 1705    |         |       |       |



1.28%

|      | Per 10 MW |       |     |         |         | 100   |
|------|-----------|-------|-----|---------|---------|-------|
|      | Nominal   | 2015  |     |         |         | 0.068 |
| 2015 | 99.44     |       | 400 | 5.2     |         | 6.8   |
| 2016 | 100.73    | 95.03 |     | 5.304   | 4.93395 | 6.8   |
| 2017 | 102.04    | 90.82 |     | 5.41008 | 4.68    | 6.8   |
| 2018 | 103.37    | 86.79 |     | 5.51828 | 4.44    | 6.8   |
| 2019 | 104.71    | 82.94 |     | 5.62865 | 4.21    | 6.8   |
| 2020 | 106.07    | 79.27 | 400 | 5.74122 | 4.00    | 6.8   |
| 2021 | 107.45    | 75.75 |     | 5.85604 | 3.79    | 6.8   |
| 2022 | 108.85    | 72.39 |     | 5.97317 | 3.60    | 6.8   |
| 2023 | 110.27    | 69.18 |     | 6.09263 | 3.42    | 6.8   |
| 2024 | 111.70    | 66.11 |     | 6.21448 | 3.24    | 6.8   |
| 2025 | 113.15    | 63.18 |     | 6.33877 | 3.08    | 6.8   |
| 2026 | 114.62    | 60.38 |     | 6.46555 | 2.92    | 6.8   |
| 2027 | 116.11    | 57.70 |     | 6.59486 | 2.77    | 6.8   |
| 2028 | 117.62    | 55.15 |     | 6.72675 | 2.63    | 6.8   |
| 2029 | 119.15    | 52.70 |     | 6.86129 | 2.49    | 6.8   |
| 2030 | 120.70    | 50.36 |     | 6.99852 | 2.37    | 6.8   |
| 2031 | 122.27    | 48.13 |     | 7.13849 | 2.24    | 6.8   |
| 2032 | 123.86    | 46.00 |     | 7.28126 | 2.13    | 6.8   |
| 2033 | 125.47    | 43.96 |     | 7.42688 | 2.02    | 6.8   |
| 2034 | 127.10    | 42.01 |     | 7.57542 | 1.92    | 6.8   |
| 2035 | 128.75    | 40.15 |     | 7.72693 | 1.82    | 6.8   |
| 2036 | 130.43    | 38.37 |     | 7.88146 | 1.73    | 6.8   |
| 2037 | 132.12    | 36.66 |     | 8.03909 | 1.64    | 6.8   |
| 2038 | 133.84    | 35.04 |     | 8.19988 | 1.55    | 6.8   |
| 2039 | 135.58    | 33.49 |     | 8.36387 | 1.47    | 6.8   |
| 2040 | 137.34    | 32.00 |     | 8.53115 | 1.40    | 6.8   |
| 2041 | 139.13    | 30.58 |     | 8.70177 | 1.33    | 6.8   |
| 2042 | 140.94    | 29.23 |     | 8.87581 | 1.26    | 6.8   |
| 2043 | 142.77    | 27.93 |     | 9.05333 | 1.20    | 6.8   |
| 2044 | 144.62    | 26.69 |     | 9.23439 | 1.13    | 6.8   |
| 2045 | 146.50    | 25.51 |     | 9.41908 | 1.08    | 6.8   |
| 2046 | 148.41    | 24.38 |     | 9.60746 | 1.02    | 6.8   |
| 2047 | 150.34    | 23.30 |     | 9.79961 | 0.97    | 6.8   |
| 2048 | 152.29    | 22.26 |     | 9.9956  | 0.92    | 6.8   |
| 2049 | 154.27    | 21.28 |     | 10.1955 | 0.87    | 6.8   |
| 2050 | 156.28    | 20.33 |     | 10.3994 | 0.83    | 6.8   |

|                |          |     |      |       |     |
|----------------|----------|-----|------|-------|-----|
| 2051 NPV Total | 1705.041 |     |      | 81.09 | 6.8 |
| 2052           |          |     |      |       | 6.8 |
| 2053           |          |     |      |       | 6.8 |
| 2054           |          | 0.4 | 1.05 | 0.42  | 6.8 |
| 2055           |          | 0.6 | 0.75 | 0.45  | 6.8 |
| 2056           |          |     |      | 0.87  | 6.8 |
| 2057           |          |     |      |       | 6.8 |
| 2058           |          |     |      |       | 6.8 |
| 2059           |          |     |      |       | 6.8 |
| 2060           |          |     |      |       | 6.8 |

105.10

6.42

6.05

5.71

5.39

5.08

4.79

4.52

4.27

4.02

3.80

3.58

3.38

3.19

3.01

2.84

2.68

2.53

2.38

2.25

2.12

2.00

1.89

1.78

1.68

1.58

1.49

1.41

1.33

1.25

1.18

1.12

1.05

0.99

0.94

0.88

0.83 98.59  
0.79  
0.74  
0.70  
0.66  
0.62  
0.59  
0.56  
0.52  
0.49  
105.10

**NSPI Transmission Costs Under NB OATT****Case HQ500Adj - 500 MW HQ to NS with Direct Assignment**

|                                       |                | 2003/04 | 2008/09 | 2015/16      | 2050/51    |              |        |
|---------------------------------------|----------------|---------|---------|--------------|------------|--------------|--------|
| <b>Capital upgrades (\$M)</b>         |                |         |         |              |            |              |        |
| Project                               |                | Base    | IPL/NRI | HQ/NS        |            | NS Direct    |        |
| Total Cost (NS#1+HQ#3)                | 1              |         | 75      | <b>1050</b>  |            |              |        |
| NS Tariff Share                       | 2              |         |         | 150          |            | <b>292.0</b> |        |
| Net NB Tariff Cost                    | 3=1-2-Direct   |         | 75      | <b>608</b>   |            |              |        |
| <b>Revenue Requirement (\$M)</b>      |                |         |         |              |            |              |        |
| Transmission Service Rev Req          | 4 (Note)       | 80.5    | 91.0    | 140.8        | 219.7      |              |        |
| <b>Usage (MW)</b>                     |                |         |         |              |            |              |        |
| Network                               | 5              | 2100    | 2100    | 1900         | 2262       |              |        |
| Long term firm                        | 6              | 720     | 1080    | 1580         | 1580       |              |        |
| Short term equivalent                 | 7              | 300     | 250     | 200          | 200        |              |        |
| Total usage                           | 8=5+6+7        | 3120    | 3430    | 3680         | 4042       |              |        |
| <b>Tariff (\$/kW-yr)</b>              |                |         |         |              |            |              |        |
| Transmission Service                  | 9=4/8*1000     | 25.8    | 26.5    | 38.3         | 54.4       |              |        |
| <b>Nova Scotia Tariff costs (\$M)</b> |                |         |         |              |            |              |        |
| NS Firm Reservation (MW)              | 10             |         |         | <b>500</b>   | <b>500</b> |              |        |
| Annual charge                         | 11=9*10/1000   |         |         | 19.1         | 27.18      | 27.18        | Esc =  |
| 2015 NPV                              | 12=npv(11)     |         |         | <b>315.5</b> |            |              | 1.009% |
| Direct Assignment Charge              | 13=Direct*125% |         |         | <b>365.0</b> |            |              |        |
| NSPI Tariff Additions                 | 14=2*125%      |         |         | <b>187.5</b> |            |              |        |
| End Effects Share                     | 15=3*10%*Share |         |         | <b>41.9</b>  |            |              | 68.95  |
| Total 2015 NPV cost                   | 16=12+13+14+15 |         |         | <b>910.0</b> |            | 68.95%       |        |
| <b>Other Tx Customer Costs</b>        |                |         |         |              |            |              |        |
| Total Reservations                    | 17             | 3120    | 3430    | 3180         | 3542       |              |        |
| Annual charge                         | 18=17*9/1000   |         |         | 121.7        | 192.6      |              |        |
| Annual Base Tariff Cost               | 19             |         |         | 99.4         | 155.2      |              |        |
| Share of Upgrade Costs                | 20=18-19       |         |         | 22.2         | 37.35      |              |        |
| NPV Share                             | 21=npv(22)     |         |         | <b>391.0</b> |            |              | 31.05  |
| End Effects Share                     | 22=3*10%*Share |         |         | <b>18.9</b>  |            |              |        |
| Total 2015 NPV Cost                   | 23=21+22       |         |         | <b>409.9</b> |            | 31.05%       |        |
| Total Additional Cost vs Base         | 24             |         |         | 1313         |            |              |        |
| Total Tariff Recovery (35 yrs)        | 25=16-15+21    |         |         | 1259         | 95.9%      |              |        |
| Tariff End Effect (Year 35-45)        | 26=3*10%       |         |         | 60.8         |            |              |        |

|                     |          |      |        |
|---------------------|----------|------|--------|
| Total Cost Recovery | 27=25+26 | 1320 | 100.5% |
|---------------------|----------|------|--------|



1.28%

| NS Power  |        | NB Power |        |
|-----------|--------|----------|--------|
| Nominal   | 2015   |          |        |
| 2015      | 19.13  |          | 22.22  |
| 2016      | 19.32  | 18.23    | 22.55  |
| 2017      | 19.52  | 17.37    | 22.88  |
| 2018      | 19.71  | 16.55    | 23.23  |
| 2019      | 19.91  | 15.77    | 23.57  |
| 2020      | 20.11  | 15.03    | 23.93  |
| 2021      | 20.32  | 14.32    | 24.28  |
| 2022      | 20.52  | 13.65    | 24.65  |
| 2023      | 20.73  | 13.00    | 25.01  |
| 2024      | 20.94  | 12.39    | 25.39  |
| 2025      | 21.15  | 11.81    | 25.77  |
| 2026      | 21.36  | 11.25    | 26.15  |
| 2027      | 21.58  | 10.72    | 26.54  |
| 2028      | 21.79  | 10.22    | 26.94  |
| 2029      | 22.01  | 9.74     | 27.34  |
| 2030      | 22.24  | 9.28     | 27.75  |
| 2031      | 22.46  | 8.84     | 28.16  |
| 2032      | 22.69  | 8.42     | 28.59  |
| 2033      | 22.92  | 8.03     | 29.01  |
| 2034      | 23.15  | 7.65     | 29.45  |
| 2035      | 23.38  | 7.29     | 29.89  |
| 2036      | 23.62  | 6.95     | 30.33  |
| 2037      | 23.85  | 6.62     | 30.79  |
| 2038      | 24.09  | 6.31     | 31.25  |
| 2039      | 24.34  | 6.01     | 31.71  |
| 2040      | 24.58  | 5.73     | 32.19  |
| 2041      | 24.83  | 5.46     | 32.67  |
| 2042      | 25.08  | 5.20     | 33.15  |
| 2043      | 25.33  | 4.96     | 33.65  |
| 2044      | 25.59  | 4.72     | 34.15  |
| 2045      | 25.85  | 4.50     | 34.66  |
| 2046      | 26.11  | 4.29     | 35.18  |
| 2047      | 26.37  | 4.09     | 35.71  |
| 2048      | 26.64  | 3.89     | 36.24  |
| 2049      | 26.91  | 3.71     | 36.78  |
| 2050      | 27.18  | 3.54     | 37.33  |
| NPV Total | 315.53 |          | 390.99 |

1.49%

|        | Gas Prices - US\$/MMBtu |              |        |              | 7.5    | Power   |
|--------|-------------------------|--------------|--------|--------------|--------|---------|
|        | Henry Hub               | Differential | ACG    | Differential | Dracut | 7 X 24  |
|        | 2.0%                    |              | 2.0%   |              |        | 2.0%    |
| Nov-12 | \$3.07                  | \$1.09       | \$4.15 |              |        | \$35.25 |
| Dec-12 | \$3.33                  | \$2.37       | \$5.69 |              |        | \$51.51 |
| Jan-13 | \$3.65                  | \$4.59       | \$8.23 |              |        | \$81.46 |
| Feb-13 | \$3.53                  | \$3.42       | \$6.95 |              |        | \$56.96 |
| Mar-13 | \$3.40                  | \$1.14       | \$4.54 |              |        | \$37.13 |
| Apr-13 | \$3.27                  | \$0.37       | \$3.64 |              |        | \$31.14 |
| May-13 | \$3.41                  | \$0.39       | \$3.79 |              |        | \$31.83 |
| Jun-13 | \$3.55                  | \$0.39       | \$3.94 |              |        | \$36.14 |
| Jul-13 | \$3.70                  | \$0.40       | \$4.10 |              |        | \$47.48 |
| Aug-13 | \$3.59                  | \$0.41       | \$4.00 |              |        | \$38.05 |
| Sep-13 | \$3.46                  | \$0.41       | \$3.87 |              |        | \$32.91 |
| Oct-13 | \$3.48                  | \$0.41       | \$3.88 |              |        | \$33.08 |
| Nov-13 | \$3.66                  | \$0.52       | \$4.18 |              |        | \$35.57 |
| Dec-13 | \$3.88                  | \$2.62       | \$6.50 |              |        | \$58.72 |
| Jan-14 | \$4.18                  | \$4.96       | \$9.14 |              |        | \$87.80 |
| Feb-14 | \$4.18                  | \$4.12       | \$8.29 |              |        | \$66.98 |
| Mar-14 | \$4.02                  | \$0.92       | \$4.94 |              |        | \$39.54 |
| Apr-14 | \$3.83                  | \$0.29       | \$4.11 |              |        | \$34.49 |
| May-14 | \$3.96                  | \$0.30       | \$4.26 |              |        | \$34.95 |
| Jun-14 | \$4.02                  | \$0.30       | \$4.32 |              |        | \$39.79 |
| Jul-14 | \$4.11                  | \$0.31       | \$4.42 |              |        | \$51.62 |
| Aug-14 | \$4.12                  | \$0.32       | \$4.44 |              |        | \$41.22 |
| Sep-14 | \$4.00                  | \$0.31       | \$4.31 |              |        | \$36.14 |
| Oct-14 | \$3.86                  | \$0.31       | \$4.17 |              |        | \$35.23 |
| Nov-14 | \$4.05                  | \$0.44       | \$4.49 |              |        | \$38.22 |
| Dec-14 | \$4.27                  | \$2.25       | \$6.52 |              |        | \$60.67 |
| Jan-15 | \$4.57                  | \$4.26       | \$8.83 |              |        | \$86.78 |
| Feb-15 | \$4.56                  | \$3.53       | \$8.10 |              |        | \$66.78 |
| Mar-15 | \$4.36                  | \$0.79       | \$5.15 |              |        | \$42.47 |
| Apr-15 | \$4.11                  | \$0.28       | \$4.39 |              |        | \$37.46 |
| May-15 | \$4.29                  | \$0.29       | \$4.58 |              |        | \$38.11 |
| Jun-15 | \$4.37                  | \$0.29       | \$4.66 |              |        | \$43.77 |
| Jul-15 | \$4.48                  | \$0.30       | \$4.78 |              |        | \$52.40 |
| Aug-15 | \$4.49                  | \$0.31       | \$4.80 |              |        | \$43.47 |
| Sep-15 | \$4.35                  | \$0.30       | \$4.65 |              |        | \$38.78 |
| Oct-15 | \$4.15                  | \$0.30       | \$4.46 |              |        | \$37.48 |
| Nov-15 | \$4.38                  | \$0.42       | \$4.80 |              |        | \$41.44 |
| Dec-15 | \$4.63                  | \$2.14       | \$6.77 |              |        | \$62.04 |
| Jan-16 | \$4.83                  | \$4.05       | \$8.88 |              |        | \$87.84 |
| Feb-16 | \$4.82                  | \$3.36       | \$8.19 |              |        | \$68.08 |
| Mar-16 | \$4.59                  | \$0.75       | \$5.34 |              |        | \$44.05 |
| Apr-16 | \$4.32                  | \$0.26       | \$4.58 |              |        | \$39.28 |
| May-16 | \$4.54                  | \$0.27       | \$4.81 |              |        | \$44.15 |
| Jun-16 | \$4.63                  | \$0.28       | \$4.91 |              |        | \$47.28 |
| Jul-16 | \$4.77                  | \$0.29       | \$5.05 |              |        | \$55.53 |

|        |        |        |        |         |
|--------|--------|--------|--------|---------|
| Aug-16 | \$4.77 | \$0.29 | \$5.07 | \$46.59 |
| Sep-16 | \$4.59 | \$0.29 | \$4.88 | \$40.78 |
| Oct-16 | \$4.35 | \$0.29 | \$4.63 | \$39.20 |
| Nov-16 | \$4.61 | \$0.40 | \$5.01 | \$44.44 |
| Dec-16 | \$4.88 | \$2.04 | \$6.92 | \$63.62 |
| Jan-17 | \$5.06 | \$3.85 | \$8.92 | \$87.85 |
| Feb-17 | \$5.06 | \$3.20 | \$8.26 | \$70.23 |
| Mar-17 | \$4.79 | \$0.71 | \$5.50 | \$46.67 |
| Apr-17 | \$4.50 | \$0.25 | \$4.75 | \$41.36 |
| May-17 | \$4.76 | \$0.26 | \$5.03 | \$41.57 |
| Jun-17 | \$4.87 | \$0.26 | \$5.13 | \$45.82 |
| Jul-17 | \$5.03 | \$0.27 | \$5.30 | \$54.11 |
| Aug-17 | \$5.03 | \$0.28 | \$5.31 | \$49.99 |
| Sep-17 | \$4.80 | \$0.27 | \$5.08 | \$42.89 |
| Oct-17 | \$4.50 | \$0.27 | \$4.78 | \$40.43 |
| Nov-17 | \$4.80 | \$0.38 | \$5.19 | \$44.49 |
| Dec-17 | \$5.11 | \$1.94 | \$7.04 | \$63.98 |
| Jan-18 | \$5.26 | \$3.67 | \$8.92 | \$87.86 |
| Feb-18 | \$5.26 | \$3.05 | \$8.30 | \$69.93 |
| Mar-18 | \$4.95 | \$0.68 | \$5.63 | \$47.01 |
| Apr-18 | \$4.64 | \$0.24 | \$4.88 | \$42.27 |
| May-18 | \$4.95 | \$0.25 | \$5.20 | \$43.22 |
| Jun-18 | \$5.07 | \$0.25 | \$5.32 | \$46.85 |
| Jul-18 | \$5.26 | \$0.26 | \$5.52 | \$56.28 |
| Aug-18 | \$5.26 | \$0.26 | \$5.52 | \$50.41 |
| Sep-18 | \$4.95 | \$0.26 | \$5.21 | \$43.73 |
| Oct-18 | \$4.64 | \$0.26 | \$4.90 | \$41.55 |
| Nov-18 | \$4.95 | \$0.37 | \$5.31 | \$45.59 |
| Dec-18 | \$5.26 | \$1.85 | \$7.10 | \$64.23 |
| Jan-19 | \$5.42 | \$3.49 | \$8.91 | \$88.79 |
| Feb-19 | \$5.42 | \$2.90 | \$8.31 | \$70.23 |
| Mar-19 | \$5.10 | \$0.64 | \$5.74 | \$48.04 |
| Apr-19 | \$4.78 | \$0.23 | \$5.00 | \$43.81 |
| May-19 | \$5.10 | \$0.23 | \$5.33 | \$44.83 |
| Jun-19 | \$5.22 | \$0.24 | \$5.46 | \$48.21 |
| Jul-19 | \$5.42 | \$0.24 | \$5.66 | \$59.31 |
| Aug-19 | \$5.42 | \$0.25 | \$5.67 | \$51.23 |
| Sep-19 | \$5.10 | \$0.25 | \$5.34 | \$44.83 |
| Oct-19 | \$4.78 | \$0.25 | \$5.02 | \$42.76 |
| Nov-19 | \$5.10 | \$0.37 | \$5.47 | \$47.07 |
| Dec-19 | \$5.42 | \$1.86 | \$7.28 | \$66.55 |
| Jan-20 | \$5.58 | \$3.52 | \$9.10 | \$92.04 |
| Feb-20 | \$5.58 | \$2.93 | \$8.51 | \$72.46 |
| Mar-20 | \$5.25 | \$0.65 | \$5.90 | \$50.54 |
| Apr-20 | \$4.92 | \$0.23 | \$5.15 | \$45.79 |
| May-20 | \$5.25 | \$0.24 | \$5.49 | \$46.99 |
| Jun-20 | \$5.38 | \$0.24 | \$5.62 | \$52.83 |
| Jul-20 | \$5.58 | \$0.25 | \$5.82 | \$61.49 |
| Aug-20 | \$5.58 | \$0.25 | \$5.83 | \$52.69 |

|        |        |        |        |         |
|--------|--------|--------|--------|---------|
| Sep-20 | \$5.25 | \$0.25 | \$5.50 | \$46.72 |
| Oct-20 | \$4.92 | \$0.25 | \$5.17 | \$44.54 |
| Nov-20 | \$5.25 | \$0.37 | \$5.62 | \$49.69 |
| Dec-20 | \$5.58 | \$1.88 | \$7.46 | \$69.73 |
| Jan-21 | \$5.75 | \$3.56 | \$9.30 | \$92.59 |
| Feb-21 | \$5.75 | \$2.96 | \$8.70 | \$74.48 |
| Mar-21 | \$5.41 | \$0.66 | \$6.06 | \$52.32 |
| Apr-21 | \$5.07 | \$0.23 | \$5.30 | \$47.36 |
| May-21 | \$5.41 | \$0.24 | \$5.65 | \$49.26 |
| Jun-21 | \$5.54 | \$0.24 | \$5.79 | \$54.44 |
| Jul-21 | \$5.75 | \$0.25 | \$5.99 | \$62.17 |
| Aug-21 | \$5.75 | \$0.26 | \$6.00 | \$54.05 |
| Sep-21 | \$5.41 | \$0.25 | \$5.66 | \$47.93 |
| Oct-21 | \$5.07 | \$0.25 | \$5.32 | \$45.66 |
| Nov-21 | \$5.41 | \$0.38 | \$5.78 | \$51.46 |
| Dec-21 | \$5.75 | \$1.90 | \$7.65 | \$71.33 |
| Jan-22 | \$5.92 | \$3.59 | \$9.51 | \$95.49 |
| Feb-22 | \$5.92 | \$2.99 | \$8.90 | \$77.12 |
| Mar-22 | \$5.57 | \$0.66 | \$6.23 | \$54.45 |
| Apr-22 | \$5.22 | \$0.23 | \$5.45 | \$49.65 |
| May-22 | \$5.57 | \$0.24 | \$5.81 | \$53.98 |
| Jun-22 | \$5.71 | \$0.25 | \$5.95 | \$56.61 |
| Jul-22 | \$5.92 | \$0.25 | \$6.17 | \$63.90 |
| Aug-22 | \$5.92 | \$0.26 | \$6.18 | \$56.11 |
| Sep-22 | \$5.57 | \$0.25 | \$5.82 | \$49.93 |
| Oct-22 | \$5.22 | \$0.25 | \$5.48 | \$47.66 |
| Nov-22 | \$5.57 | \$0.38 | \$5.95 | \$53.75 |
| Dec-22 | \$5.92 | \$1.92 | \$7.84 | \$73.71 |
| Jan-23 | \$6.04 | \$3.67 | \$9.70 | \$97.40 |
| Feb-23 | \$6.04 | \$3.05 | \$9.08 | \$78.67 |
| Mar-23 | \$5.68 | \$0.68 | \$6.36 | \$55.54 |
| Apr-23 | \$5.33 | \$0.24 | \$5.56 | \$50.64 |
| May-23 | \$5.68 | \$0.25 | \$5.93 | \$55.06 |
| Jun-23 | \$5.82 | \$0.25 | \$6.07 | \$57.74 |
| Jul-23 | \$6.04 | \$0.26 | \$6.29 | \$65.18 |
| Aug-23 | \$6.04 | \$0.26 | \$6.30 | \$57.23 |
| Sep-23 | \$5.68 | \$0.26 | \$5.94 | \$50.93 |
| Oct-23 | \$5.33 | \$0.26 | \$5.58 | \$48.61 |
| Nov-23 | \$5.68 | \$0.39 | \$6.07 | \$54.82 |
| Dec-23 | \$6.04 | \$1.96 | \$8.00 | \$75.18 |
| Jan-24 | \$6.16 | \$3.74 | \$9.90 | \$99.35 |
| Feb-24 | \$6.16 | \$3.11 | \$9.26 | \$80.24 |
| Mar-24 | \$5.80 | \$0.69 | \$6.49 | \$56.65 |
| Apr-24 | \$5.43 | \$0.24 | \$5.67 | \$51.66 |
| May-24 | \$5.80 | \$0.25 | \$6.05 | \$56.16 |
| Jun-24 | \$5.94 | \$0.26 | \$6.20 | \$58.90 |
| Jul-24 | \$6.16 | \$0.26 | \$6.42 | \$66.48 |
| Aug-24 | \$6.16 | \$0.27 | \$6.43 | \$58.38 |
| Sep-24 | \$5.80 | \$0.26 | \$6.06 | \$51.95 |

|        |        |        |         |          |
|--------|--------|--------|---------|----------|
| Oct-24 | \$5.43 | \$0.26 | \$5.70  | \$49.58  |
| Nov-24 | \$5.80 | \$0.40 | \$6.19  | \$55.92  |
| Dec-24 | \$6.16 | \$2.00 | \$8.16  | \$76.68  |
| Jan-25 | \$6.28 | \$3.81 | \$10.10 | \$101.33 |
| Feb-25 | \$6.28 | \$3.17 | \$9.45  | \$81.84  |
| Mar-25 | \$5.91 | \$0.70 | \$6.62  | \$57.79  |
| Apr-25 | \$5.54 | \$0.25 | \$5.79  | \$52.69  |
| May-25 | \$5.91 | \$0.26 | \$6.17  | \$57.29  |
| Jun-25 | \$6.06 | \$0.26 | \$6.32  | \$60.08  |
| Jul-25 | \$6.28 | \$0.27 | \$6.55  | \$67.81  |
| Aug-25 | \$6.28 | \$0.27 | \$6.55  | \$59.55  |
| Sep-25 | \$5.91 | \$0.27 | \$6.18  | \$52.99  |
| Oct-25 | \$5.54 | \$0.27 | \$5.81  | \$50.57  |
| Nov-25 | \$5.91 | \$0.40 | \$6.31  | \$57.04  |
| Dec-25 | \$6.28 | \$2.04 | \$8.32  | \$78.22  |
| Jan-26 | \$6.41 | \$3.89 | \$10.30 | \$103.36 |
| Feb-26 | \$6.41 | \$3.23 | \$9.64  | \$83.48  |
| Mar-26 | \$6.03 | \$0.72 | \$6.75  | \$58.94  |
| Apr-26 | \$5.65 | \$0.25 | \$5.90  | \$53.74  |
| May-26 | \$6.03 | \$0.26 | \$6.29  | \$58.43  |
| Jun-26 | \$6.18 | \$0.27 | \$6.45  | \$61.28  |
| Jul-26 | \$6.41 | \$0.27 | \$6.68  | \$69.17  |
| Aug-26 | \$6.41 | \$0.28 | \$6.68  | \$60.74  |
| Sep-26 | \$6.03 | \$0.27 | \$6.30  | \$54.05  |
| Oct-26 | \$5.65 | \$0.27 | \$5.93  | \$51.59  |
| Nov-26 | \$6.03 | \$0.41 | \$6.44  | \$58.18  |
| Dec-26 | \$6.41 | \$2.08 | \$8.49  | \$79.78  |
| Jan-27 | \$6.53 | \$3.97 | \$10.50 | \$105.43 |
| Feb-27 | \$6.53 | \$3.30 | \$9.83  | \$85.15  |
| Mar-27 | \$6.15 | \$0.73 | \$6.88  | \$60.12  |
| Apr-27 | \$5.77 | \$0.26 | \$6.02  | \$54.82  |
| May-27 | \$6.15 | \$0.27 | \$6.42  | \$59.60  |
| Jun-27 | \$6.30 | \$0.27 | \$6.57  | \$62.50  |
| Jul-27 | \$6.53 | \$0.28 | \$6.81  | \$70.55  |
| Aug-27 | \$6.53 | \$0.28 | \$6.82  | \$61.95  |
| Sep-27 | \$6.15 | \$0.28 | \$6.43  | \$55.13  |
| Oct-27 | \$5.77 | \$0.28 | \$6.05  | \$52.62  |
| Nov-27 | \$6.15 | \$0.42 | \$6.57  | \$59.34  |
| Dec-27 | \$6.53 | \$2.12 | \$8.66  | \$81.38  |
| Jan-28 | \$6.66 | \$4.05 | \$10.71 | \$107.54 |
| Feb-28 | \$6.66 | \$3.36 | \$10.03 | \$86.85  |
| Mar-28 | \$6.27 | \$0.75 | \$7.02  | \$61.32  |
| Apr-28 | \$5.88 | \$0.26 | \$6.14  | \$55.91  |
| May-28 | \$6.27 | \$0.27 | \$6.55  | \$60.79  |
| Jun-28 | \$6.43 | \$0.28 | \$6.71  | \$63.75  |
| Jul-28 | \$6.66 | \$0.28 | \$6.95  | \$71.96  |
| Aug-28 | \$6.66 | \$0.29 | \$6.95  | \$63.19  |
| Sep-28 | \$6.27 | \$0.29 | \$6.56  | \$56.23  |
| Oct-28 | \$5.88 | \$0.29 | \$6.17  | \$53.67  |

|        |        |        |         |          |
|--------|--------|--------|---------|----------|
| Nov-28 | \$6.27 | \$0.43 | \$6.70  | \$60.53  |
| Dec-28 | \$6.66 | \$2.16 | \$8.83  | \$83.00  |
| Jan-29 | \$6.80 | \$4.13 | \$10.93 | \$109.69 |
| Feb-29 | \$6.80 | \$3.43 | \$10.23 | \$88.59  |
| Mar-29 | \$6.40 | \$0.76 | \$7.16  | \$62.55  |
| Apr-29 | \$6.00 | \$0.27 | \$6.26  | \$57.03  |
| May-29 | \$6.40 | \$0.28 | \$6.68  | \$62.01  |
| Jun-29 | \$6.56 | \$0.28 | \$6.84  | \$65.03  |
| Jul-29 | \$6.80 | \$0.29 | \$7.09  | \$73.40  |
| Aug-29 | \$6.80 | \$0.30 | \$7.09  | \$64.45  |
| Sep-29 | \$6.40 | \$0.29 | \$6.69  | \$57.36  |
| Oct-29 | \$6.00 | \$0.29 | \$6.29  | \$54.74  |
| Nov-29 | \$6.40 | \$0.44 | \$6.83  | \$61.74  |
| Dec-29 | \$6.80 | \$2.21 | \$9.00  | \$84.67  |
| Jan-30 | \$6.93 | \$4.21 | \$11.15 | \$111.88 |
| Feb-30 | \$6.93 | \$3.50 | \$10.43 | \$90.36  |
| Mar-30 | \$6.53 | \$0.78 | \$7.30  | \$63.80  |
| Apr-30 | \$6.12 | \$0.27 | \$6.39  | \$58.17  |
| May-30 | \$6.53 | \$0.28 | \$6.81  | \$63.25  |
| Jun-30 | \$6.69 | \$0.29 | \$6.98  | \$66.33  |
| Jul-30 | \$6.93 | \$0.29 | \$7.23  | \$74.87  |
| Aug-30 | \$6.93 | \$0.30 | \$7.24  | \$65.74  |
| Sep-30 | \$6.53 | \$0.30 | \$6.82  | \$58.50  |
| Oct-30 | \$6.12 | \$0.30 | \$6.42  | \$55.84  |
| Nov-30 | \$6.53 | \$0.45 | \$6.97  | \$62.98  |
| Dec-30 | \$6.93 | \$2.25 | \$9.18  | \$86.36  |
| Jan-31 | \$7.07 | \$4.30 | \$11.37 | \$114.12 |
| Feb-31 | \$7.07 | \$3.57 | \$10.64 | \$92.17  |
| Mar-31 | \$6.66 | \$0.79 | \$7.45  | \$65.08  |
| Apr-31 | \$6.24 | \$0.28 | \$6.52  | \$59.34  |
| May-31 | \$6.66 | \$0.29 | \$6.95  | \$64.51  |
| Jun-31 | \$6.82 | \$0.29 | \$7.12  | \$67.66  |
| Jul-31 | \$7.07 | \$0.30 | \$7.37  | \$76.36  |
| Aug-31 | \$7.07 | \$0.31 | \$7.38  | \$67.06  |
| Sep-31 | \$6.66 | \$0.30 | \$6.96  | \$59.67  |
| Oct-31 | \$6.24 | \$0.30 | \$6.54  | \$56.96  |
| Nov-31 | \$6.66 | \$0.45 | \$7.11  | \$64.24  |
| Dec-31 | \$7.07 | \$2.30 | \$9.37  | \$88.09  |
| Jan-32 | \$7.21 | \$4.38 | \$11.60 | \$116.40 |
| Feb-32 | \$7.21 | \$3.64 | \$10.85 | \$94.01  |
| Mar-32 | \$6.79 | \$0.81 | \$7.60  | \$66.38  |
| Apr-32 | \$6.37 | \$0.28 | \$6.65  | \$60.52  |
| May-32 | \$6.79 | \$0.30 | \$7.09  | \$65.80  |
| Jun-32 | \$6.96 | \$0.30 | \$7.26  | \$69.01  |
| Jul-32 | \$7.21 | \$0.31 | \$7.52  | \$77.89  |
| Aug-32 | \$7.21 | \$0.31 | \$7.53  | \$68.40  |
| Sep-32 | \$6.79 | \$0.31 | \$7.10  | \$60.87  |
| Oct-32 | \$6.37 | \$0.31 | \$6.67  | \$58.09  |
| Nov-32 | \$6.79 | \$0.46 | \$7.25  | \$65.52  |

|        |        |        |         |          |
|--------|--------|--------|---------|----------|
| Dec-32 | \$7.21 | \$2.34 | \$9.56  | \$89.85  |
| Jan-33 | \$7.36 | \$4.47 | \$11.83 | \$118.73 |
| Feb-33 | \$7.36 | \$3.71 | \$11.07 | \$95.89  |
| Mar-33 | \$6.93 | \$0.82 | \$7.75  | \$67.71  |
| Apr-33 | \$6.49 | \$0.29 | \$6.78  | \$61.73  |
| May-33 | \$6.93 | \$0.30 | \$7.23  | \$67.12  |
| Jun-33 | \$7.10 | \$0.30 | \$7.40  | \$70.39  |
| Jul-33 | \$7.36 | \$0.31 | \$7.67  | \$79.45  |
| Aug-33 | \$7.36 | \$0.32 | \$7.68  | \$69.77  |
| Sep-33 | \$6.93 | \$0.32 | \$7.24  | \$62.08  |
| Oct-33 | \$6.49 | \$0.32 | \$6.81  | \$59.26  |
| Nov-33 | \$6.93 | \$0.47 | \$7.40  | \$66.83  |
| Dec-33 | \$7.36 | \$2.39 | \$9.75  | \$91.64  |
| Jan-34 | \$7.51 | \$4.56 | \$12.06 | \$121.10 |
| Feb-34 | \$7.51 | \$3.79 | \$11.29 | \$97.81  |
| Mar-34 | \$7.06 | \$0.84 | \$7.91  | \$69.06  |
| Apr-34 | \$6.62 | \$0.29 | \$6.92  | \$62.97  |
| May-34 | \$7.06 | \$0.31 | \$7.37  | \$68.46  |
| Jun-34 | \$7.24 | \$0.31 | \$7.55  | \$71.80  |
| Jul-34 | \$7.51 | \$0.32 | \$7.82  | \$81.04  |
| Aug-34 | \$7.51 | \$0.33 | \$7.83  | \$71.16  |
| Sep-34 | \$7.06 | \$0.32 | \$7.39  | \$63.33  |
| Oct-34 | \$6.62 | \$0.32 | \$6.94  | \$60.44  |
| Nov-34 | \$7.06 | \$0.48 | \$7.55  | \$68.17  |
| Dec-34 | \$7.51 | \$2.44 | \$9.94  | \$93.48  |
| Jan-35 | \$7.66 | \$4.65 | \$12.31 | \$123.52 |
| Feb-35 | \$7.66 | \$3.86 | \$11.52 | \$99.77  |
| Mar-35 | \$7.21 | \$0.86 | \$8.06  | \$70.44  |
| Apr-35 | \$6.76 | \$0.30 | \$7.06  | \$64.23  |
| May-35 | \$7.21 | \$0.31 | \$7.52  | \$69.83  |
| Jun-35 | \$7.39 | \$0.32 | \$7.70  | \$73.23  |
| Jul-35 | \$7.66 | \$0.33 | \$7.98  | \$82.66  |
| Aug-35 | \$7.66 | \$0.33 | \$7.99  | \$72.59  |
| Sep-35 | \$7.21 | \$0.33 | \$7.53  | \$64.59  |
| Oct-35 | \$6.76 | \$0.33 | \$7.08  | \$61.65  |
| Nov-35 | \$7.21 | \$0.49 | \$7.70  | \$69.53  |
| Dec-35 | \$7.66 | \$2.48 | \$10.14 | \$95.35  |
| Jan-36 | \$7.81 | \$4.74 | \$12.55 | \$126.00 |
| Feb-36 | \$7.81 | \$3.94 | \$11.75 | \$101.76 |
| Mar-36 | \$7.35 | \$0.88 | \$8.23  | \$71.85  |
| Apr-36 | \$6.89 | \$0.31 | \$7.20  | \$65.51  |
| May-36 | \$7.35 | \$0.32 | \$7.67  | \$71.23  |
| Jun-36 | \$7.53 | \$0.32 | \$7.86  | \$74.70  |
| Jul-36 | \$7.81 | \$0.33 | \$8.14  | \$84.31  |
| Aug-36 | \$7.81 | \$0.34 | \$8.15  | \$74.04  |
| Sep-36 | \$7.35 | \$0.33 | \$7.68  | \$65.88  |
| Oct-36 | \$6.89 | \$0.33 | \$7.22  | \$62.88  |
| Nov-36 | \$7.35 | \$0.50 | \$7.85  | \$70.92  |
| Dec-36 | \$7.81 | \$2.53 | \$10.34 | \$97.25  |

|        |        |        |         |          |
|--------|--------|--------|---------|----------|
| Jan-37 | \$7.97 | \$4.84 | \$12.80 | \$128.52 |
| Feb-37 | \$7.97 | \$4.02 | \$11.98 | \$103.80 |
| Mar-37 | \$7.50 | \$0.89 | \$8.39  | \$73.29  |
| Apr-37 | \$7.03 | \$0.31 | \$7.34  | \$66.82  |
| May-37 | \$7.50 | \$0.33 | \$7.82  | \$72.65  |
| Jun-37 | \$7.68 | \$0.33 | \$8.01  | \$76.19  |
| Jul-37 | \$7.97 | \$0.34 | \$8.30  | \$86.00  |
| Aug-37 | \$7.97 | \$0.35 | \$8.31  | \$75.52  |
| Sep-37 | \$7.50 | \$0.34 | \$7.84  | \$67.20  |
| Oct-37 | \$7.03 | \$0.34 | \$7.37  | \$64.14  |
| Nov-37 | \$7.50 | \$0.51 | \$8.01  | \$72.34  |
| Dec-37 | \$7.97 | \$2.59 | \$10.55 | \$99.20  |
| Jan-38 | \$8.12 | \$4.93 | \$13.06 | \$131.09 |
| Feb-38 | \$8.12 | \$4.10 | \$12.22 | \$105.87 |
| Mar-38 | \$7.65 | \$0.91 | \$8.56  | \$74.75  |
| Apr-38 | \$7.17 | \$0.32 | \$7.49  | \$68.16  |
| May-38 | \$7.65 | \$0.33 | \$7.98  | \$74.11  |
| Jun-38 | \$7.84 | \$0.34 | \$8.17  | \$77.72  |
| Jul-38 | \$8.12 | \$0.35 | \$8.47  | \$87.72  |
| Aug-38 | \$8.12 | \$0.35 | \$8.48  | \$77.03  |
| Sep-38 | \$7.65 | \$0.35 | \$7.99  | \$68.55  |
| Oct-38 | \$7.17 | \$0.35 | \$7.52  | \$65.42  |
| Nov-38 | \$7.65 | \$0.52 | \$8.17  | \$73.79  |
| Dec-38 | \$8.12 | \$2.64 | \$10.76 | \$101.18 |
| Jan-39 | \$8.29 | \$5.03 | \$13.32 | \$133.71 |
| Feb-39 | \$8.29 | \$4.18 | \$12.47 | \$107.99 |
| Mar-39 | \$7.80 | \$0.93 | \$8.73  | \$76.25  |
| Apr-39 | \$7.31 | \$0.32 | \$7.64  | \$69.52  |
| May-39 | \$7.80 | \$0.34 | \$8.14  | \$75.59  |
| Jun-39 | \$7.99 | \$0.34 | \$8.34  | \$79.27  |
| Jul-39 | \$8.29 | \$0.35 | \$8.64  | \$89.47  |
| Aug-39 | \$8.29 | \$0.36 | \$8.65  | \$78.57  |
| Sep-39 | \$7.80 | \$0.35 | \$8.15  | \$69.92  |
| Oct-39 | \$7.31 | \$0.35 | \$7.67  | \$66.73  |
| Nov-39 | \$7.80 | \$0.53 | \$8.33  | \$75.26  |
| Dec-39 | \$8.29 | \$2.69 | \$10.98 | \$103.21 |
| Jan-40 | \$8.45 | \$5.13 | \$13.59 | \$136.38 |
| Feb-40 | \$8.45 | \$4.26 | \$12.72 | \$110.15 |
| Mar-40 | \$7.96 | \$0.95 | \$8.90  | \$77.77  |
| Apr-40 | \$7.46 | \$0.33 | \$7.79  | \$70.91  |
| May-40 | \$7.96 | \$0.35 | \$8.30  | \$77.10  |
| Jun-40 | \$8.15 | \$0.35 | \$8.50  | \$80.86  |
| Jul-40 | \$8.45 | \$0.36 | \$8.81  | \$91.26  |
| Aug-40 | \$8.45 | \$0.37 | \$8.82  | \$80.14  |
| Sep-40 | \$7.96 | \$0.36 | \$8.32  | \$71.31  |
| Oct-40 | \$7.46 | \$0.36 | \$7.82  | \$68.07  |
| Nov-40 | \$7.96 | \$0.54 | \$8.50  | \$76.77  |
| Dec-40 | \$8.45 | \$2.74 | \$11.20 | \$105.27 |



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**Annualized**

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|             |        |        |        |         |
|-------------|--------|--------|--------|---------|
| <b>2012</b> | \$3.20 | \$1.73 | \$4.92 | \$43.38 |
| <b>2013</b> | \$3.55 | \$1.25 | \$4.80 | \$43.37 |
| <b>2014</b> | \$4.05 | \$1.24 | \$5.28 | \$47.22 |
| <b>2015</b> | \$4.40 | \$1.10 | \$5.50 | \$49.25 |
| <b>2016</b> | \$4.64 | \$1.05 | \$5.69 | \$51.74 |
| <b>2017</b> | \$4.86 | \$1.00 | \$5.86 | \$52.45 |
| <b>2018</b> | \$5.04 | \$0.95 | \$5.98 | \$53.24 |
| <b>2019</b> | \$5.19 | \$0.91 | \$6.10 | \$54.64 |
| <b>2020</b> | \$5.34 | \$0.92 | \$6.26 | \$57.13 |
| <b>2021</b> | \$5.50 | \$0.93 | \$6.43 | \$58.59 |
| <b>2022</b> | \$5.67 | \$0.94 | \$6.61 | \$61.03 |
| <b>2023</b> | \$5.78 | \$0.96 | \$6.74 | \$62.25 |
| <b>2024</b> | \$5.90 | \$0.98 | \$6.88 | \$63.50 |
| <b>2025</b> | \$6.02 | \$1.00 | \$7.01 | \$64.77 |
| <b>2026</b> | \$6.14 | \$1.02 | \$7.15 | \$66.06 |
| <b>2027</b> | \$6.26 | \$1.04 | \$7.30 | \$67.38 |
| <b>2028</b> | \$6.38 | \$1.06 | \$7.44 | \$68.73 |
| <b>2029</b> | \$6.51 | \$1.08 | \$7.59 | \$70.10 |
| <b>2030</b> | \$6.64 | \$1.10 | \$7.74 | \$71.51 |
| <b>2031</b> | \$6.77 | \$1.12 | \$7.90 | \$72.94 |
| <b>2032</b> | \$6.91 | \$1.15 | \$8.06 | \$74.40 |
| <b>2033</b> | \$7.05 | \$1.17 | \$8.22 | \$75.88 |
| <b>2034</b> | \$7.19 | \$1.19 | \$8.38 | \$77.40 |
| <b>2035</b> | \$7.33 | \$1.22 | \$8.55 | \$78.95 |
| <b>2036</b> | \$7.48 | \$1.24 | \$8.72 | \$80.53 |
| <b>2037</b> | \$7.63 | \$1.27 | \$8.89 | \$82.14 |
| <b>2038</b> | \$7.78 | \$1.29 | \$9.07 | \$83.78 |
| <b>2039</b> | \$7.94 | \$1.32 | \$9.25 | \$85.46 |
| <b>2040</b> | \$8.10 | \$1.34 | \$9.44 | \$87.17 |

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**Capacity Market Fo**

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| <b>Caapcity Year</b>       | <b>ESAI Nominal<br/>US\$ - \$/kW-</b> | <b>Calendar Year</b> | <b>ESAI Nominal<br/>US\$ - \$/kW-</b> | <b>Inflation</b> |
|----------------------------|---------------------------------------|----------------------|---------------------------------------|------------------|
|                            | <b>mo</b>                             |                      | <b>mo</b>                             |                  |
| 2016/17                    | \$3.15                                | 2017                 | \$3.19                                | 2.0%             |
| 2017/18                    | \$3.25                                | 2018                 | \$3.98                                | 2.0%             |
| 2018/19                    | \$5.00                                | 2019                 | \$5.63                                | 2.0%             |
| 2019/20                    | \$6.50                                | 2020                 | \$7.08                                | 2.0%             |
| 2020/21                    | \$7.90                                | 2021                 | \$8.67                                | 2.0%             |
| 2021/22                    | \$9.75                                | 2022                 | \$10.16                               | 2.0%             |
| 2022/23                    | \$10.74                               | 2023                 | \$10.83                               | 2.0%             |
| 2023/24                    | \$10.96                               | 2024                 | \$11.05                               | 2.0%             |
| 2024/25                    | \$11.17                               | 2025                 | \$11.27                               | 2.0%             |
| 2025/26                    | \$11.40                               | 2026                 |                                       |                  |
|                            |                                       | 2027                 |                                       |                  |
|                            |                                       | 2028                 |                                       |                  |
|                            |                                       | 2029                 |                                       |                  |
| Capacity Year = June - May |                                       | 2030                 |                                       |                  |
|                            |                                       | 2031                 |                                       |                  |
|                            |                                       | 2032                 |                                       |                  |
|                            |                                       | 2033                 |                                       |                  |
|                            |                                       | 2034                 |                                       |                  |
|                            |                                       | 2035                 |                                       |                  |
|                            |                                       | 2036                 |                                       |                  |
|                            |                                       | 2037                 |                                       |                  |
|                            |                                       | 2038                 |                                       |                  |
|                            |                                       | 2039                 |                                       |                  |
|                            |                                       | 2040                 |                                       |                  |

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## er Prices - US\$/MWh

**MassHub**

| <i>On Peak</i> | <i>Off Peak</i> |
|----------------|-----------------|
| 2.0%           | 2.0%            |
| \$37.85        | \$32.71         |
| \$60.38        | \$44.21         |
| \$98.77        | \$64.52         |
| \$61.30        | \$53.01         |
| \$40.72        | \$34.17         |
| \$33.84        | \$28.56         |
| \$34.65        | \$29.06         |
| \$44.41        | \$29.52         |
| \$63.41        | \$31.90         |
| \$46.12        | \$30.80         |
| \$35.91        | \$30.03         |
| \$36.01        | \$30.17         |
| \$38.34        | \$33.02         |
| \$68.28        | \$50.13         |
| \$104.68       | \$71.29         |
| \$71.78        | \$62.62         |
| \$43.19        | \$36.53         |
| \$37.52        | \$31.59         |
| \$38.38        | \$31.87         |
| \$48.43        | \$32.23         |
| \$69.35        | \$34.28         |
| \$50.21        | \$33.81         |
| \$39.25        | \$33.08         |
| \$38.20        | \$32.28         |
| \$41.38        | \$35.49         |
| \$71.05        | \$50.51         |
| \$105.73       | \$69.76         |
| \$72.25        | \$61.80         |
| \$46.64        | \$38.73         |
| \$41.12        | \$33.95         |
| \$42.55        | \$34.45         |
| \$53.08        | \$34.87         |
| \$68.13        | \$37.02         |
| \$52.11        | \$36.37         |
| \$42.02        | \$35.59         |
| \$40.59        | \$34.47         |
| \$45.25        | \$37.97         |
| \$71.65        | \$52.65         |
| \$108.64       | \$70.71         |
| \$74.10        | \$62.47         |
| \$47.92        | \$40.26         |
| \$43.35        | \$35.72         |
| \$52.79        | \$36.39         |
| \$57.83        | \$37.19         |
| \$75.19        | \$39.33         |

|          |         |
|----------|---------|
| \$54.77  | \$38.59 |
| \$44.05  | \$37.56 |
| \$42.44  | \$36.19 |
| \$49.03  | \$40.00 |
| \$73.94  | \$54.34 |
| \$106.92 | \$70.73 |
| \$77.22  | \$63.87 |
| \$51.09  | \$42.34 |
| \$46.18  | \$37.49 |
| \$45.48  | \$37.74 |
| \$54.36  | \$37.64 |
| \$69.85  | \$41.15 |
| \$59.46  | \$40.72 |
| \$46.23  | \$39.72 |
| \$43.84  | \$37.17 |
| \$47.77  | \$41.31 |
| \$74.18  | \$55.58 |
| \$104.65 | \$71.43 |
| \$76.17  | \$64.25 |
| \$51.45  | \$43.04 |
| \$46.96  | \$38.15 |
| \$47.60  | \$38.94 |
| \$55.88  | \$38.94 |
| \$71.31  | \$42.78 |
| \$58.82  | \$42.17 |
| \$47.33  | \$40.44 |
| \$44.96  | \$38.16 |
| \$48.93  | \$42.36 |
| \$74.04  | \$56.15 |
| \$106.18 | \$71.78 |
| \$76.48  | \$64.55 |
| \$52.98  | \$43.97 |
| \$48.70  | \$39.13 |
| \$49.75  | \$40.02 |
| \$58.08  | \$40.31 |
| \$74.80  | \$44.15 |
| \$59.90  | \$43.44 |
| \$48.57  | \$41.31 |
| \$46.15  | \$39.40 |
| \$50.65  | \$43.81 |
| \$76.40  | \$57.71 |
| \$110.28 | \$74.19 |
| \$79.06  | \$66.85 |
| \$55.55  | \$46.05 |
| \$50.62  | \$41.18 |
| \$52.59  | \$42.39 |
| \$62.94  | \$43.16 |
| \$77.08  | \$46.23 |
| \$61.69  | \$45.28 |

|          |         |
|----------|---------|
| \$50.33  | \$43.17 |
| \$47.90  | \$41.32 |
| \$54.00  | \$45.79 |
| \$79.90  | \$59.77 |
| \$112.83 | \$75.93 |
| \$81.56  | \$68.03 |
| \$57.25  | \$47.50 |
| \$52.48  | \$42.46 |
| \$55.85  | \$43.83 |
| \$64.46  | \$44.87 |
| \$78.35  | \$47.65 |
| \$62.36  | \$46.58 |
| \$51.41  | \$44.52 |
| \$49.03  | \$42.52 |
| \$55.97  | \$47.11 |
| \$81.50  | \$61.37 |
| \$116.15 | \$78.48 |
| \$84.25  | \$70.64 |
| \$59.30  | \$49.71 |
| \$55.44  | \$44.58 |
| \$62.65  | \$46.20 |
| \$66.32  | \$47.33 |
| \$80.98  | \$49.83 |
| \$63.31  | \$49.06 |
| \$53.27  | \$46.65 |
| \$50.96  | \$44.59 |
| \$58.55  | \$49.12 |
| \$84.55  | \$63.97 |
| \$118.47 | \$80.05 |
| \$85.93  | \$72.06 |
| \$60.49  | \$50.70 |
| \$56.55  | \$45.48 |
| \$63.91  | \$47.12 |
| \$67.65  | \$48.27 |
| \$82.60  | \$50.83 |
| \$64.58  | \$50.04 |
| \$54.33  | \$47.58 |
| \$51.98  | \$45.48 |
| \$59.72  | \$50.10 |
| \$86.24  | \$65.25 |
| \$120.84 | \$81.65 |
| \$87.65  | \$73.50 |
| \$61.70  | \$51.71 |
| \$57.68  | \$46.39 |
| \$65.18  | \$48.07 |
| \$69.00  | \$49.24 |
| \$84.25  | \$51.84 |
| \$65.87  | \$51.04 |
| \$55.42  | \$48.53 |

|          |         |
|----------|---------|
| \$53.02  | \$46.39 |
| \$60.92  | \$51.10 |
| \$87.96  | \$66.56 |
| \$123.25 | \$83.28 |
| \$89.41  | \$74.97 |
| \$62.93  | \$52.75 |
| \$58.84  | \$47.31 |
| \$66.49  | \$49.03 |
| \$70.38  | \$50.22 |
| \$85.94  | \$52.88 |
| \$67.19  | \$52.07 |
| \$56.53  | \$49.50 |
| \$54.08  | \$47.31 |
| \$62.13  | \$52.12 |
| \$89.72  | \$67.89 |
| \$125.72 | \$84.95 |
| \$91.19  | \$76.47 |
| \$64.19  | \$53.80 |
| \$60.01  | \$48.26 |
| \$67.82  | \$50.01 |
| \$71.79  | \$51.23 |
| \$87.65  | \$53.94 |
| \$68.53  | \$53.11 |
| \$57.66  | \$50.49 |
| \$55.16  | \$48.26 |
| \$63.38  | \$53.16 |
| \$91.52  | \$69.25 |
| \$128.23 | \$86.65 |
| \$93.02  | \$78.00 |
| \$65.47  | \$54.88 |
| \$61.21  | \$49.22 |
| \$69.17  | \$51.01 |
| \$73.22  | \$52.25 |
| \$89.41  | \$55.02 |
| \$69.90  | \$54.17 |
| \$58.81  | \$51.50 |
| \$56.26  | \$49.23 |
| \$64.64  | \$54.23 |
| \$93.35  | \$70.63 |
| \$130.80 | \$88.38 |
| \$94.88  | \$79.56 |
| \$66.78  | \$55.98 |
| \$62.44  | \$50.21 |
| \$70.56  | \$52.03 |
| \$74.69  | \$53.30 |
| \$91.20  | \$56.12 |
| \$71.30  | \$55.25 |
| \$59.99  | \$52.53 |
| \$57.39  | \$50.21 |

|          |         |
|----------|---------|
| \$65.94  | \$55.31 |
| \$95.21  | \$72.04 |
| \$133.41 | \$90.15 |
| \$96.78  | \$81.15 |
| \$68.12  | \$57.10 |
| \$63.69  | \$51.21 |
| \$71.97  | \$53.07 |
| \$76.18  | \$54.36 |
| \$93.02  | \$57.24 |
| \$72.73  | \$56.36 |
| \$61.19  | \$53.59 |
| \$58.54  | \$51.21 |
| \$67.26  | \$56.42 |
| \$97.12  | \$73.48 |
| \$136.08 | \$91.95 |
| \$98.71  | \$82.77 |
| \$69.48  | \$58.24 |
| \$64.96  | \$52.24 |
| \$73.41  | \$54.13 |
| \$77.70  | \$55.45 |
| \$94.88  | \$58.38 |
| \$74.18  | \$57.48 |
| \$62.41  | \$54.66 |
| \$59.71  | \$52.24 |
| \$68.60  | \$57.55 |
| \$99.06  | \$74.95 |
| \$138.80 | \$93.79 |
| \$100.69 | \$84.43 |
| \$70.87  | \$59.40 |
| \$66.26  | \$53.28 |
| \$74.88  | \$55.21 |
| \$79.26  | \$56.56 |
| \$96.78  | \$59.55 |
| \$75.66  | \$58.63 |
| \$63.66  | \$55.75 |
| \$60.90  | \$53.28 |
| \$69.97  | \$58.70 |
| \$101.04 | \$76.45 |
| \$141.58 | \$95.66 |
| \$102.70 | \$86.11 |
| \$72.29  | \$60.59 |
| \$67.58  | \$54.35 |
| \$76.37  | \$56.32 |
| \$80.84  | \$57.69 |
| \$98.71  | \$60.74 |
| \$77.18  | \$59.81 |
| \$64.93  | \$56.87 |
| \$62.12  | \$54.35 |
| \$71.37  | \$59.87 |



|          |          |
|----------|----------|
| \$103.06 | \$77.98  |
| \$144.41 | \$97.58  |
| \$104.75 | \$87.84  |
| \$73.73  | \$61.80  |
| \$68.94  | \$55.43  |
| \$77.90  | \$57.44  |
| \$82.46  | \$58.84  |
| \$100.69 | \$61.96  |
| \$78.72  | \$61.00  |
| \$66.23  | \$58.00  |
| \$63.36  | \$55.44  |
| \$72.80  | \$61.07  |
| \$105.12 | \$79.54  |
| \$147.30 | \$99.53  |
| \$106.85 | \$89.59  |
| \$75.21  | \$63.04  |
| \$70.31  | \$56.54  |
| \$79.46  | \$58.59  |
| \$84.11  | \$60.02  |
| \$102.70 | \$63.20  |
| \$80.30  | \$62.22  |
| \$67.56  | \$59.16  |
| \$64.63  | \$56.55  |
| \$74.26  | \$62.29  |
| \$107.22 | \$81.13  |
| \$150.25 | \$101.52 |
| \$108.99 | \$91.38  |
| \$76.71  | \$64.30  |
| \$71.72  | \$57.67  |
| \$81.05  | \$59.76  |
| \$85.79  | \$61.22  |
| \$104.75 | \$64.46  |
| \$81.90  | \$63.47  |
| \$68.91  | \$60.35  |
| \$65.92  | \$57.68  |
| \$75.74  | \$63.54  |
| \$109.37 | \$82.75  |
| \$153.25 | \$103.55 |
| \$111.17 | \$93.21  |
| \$78.25  | \$65.59  |
| \$73.15  | \$58.83  |
| \$82.67  | \$60.96  |
| \$87.51  | \$62.45  |
| \$106.85 | \$65.75  |
| \$83.54  | \$64.74  |
| \$70.29  | \$61.55  |
| \$67.24  | \$58.83  |
| \$77.26  | \$64.81  |
| \$111.56 | \$84.41  |

|          |          |
|----------|----------|
| \$156.32 | \$105.62 |
| \$113.39 | \$95.08  |
| \$79.81  | \$66.90  |
| \$74.62  | \$60.00  |
| \$84.32  | \$62.18  |
| \$89.26  | \$63.69  |
| \$108.99 | \$67.07  |
| \$85.21  | \$66.03  |
| \$71.69  | \$62.78  |
| \$68.59  | \$60.01  |
| \$78.80  | \$66.10  |
| \$113.79 | \$86.10  |
| \$159.44 | \$107.73 |
| \$115.66 | \$96.98  |
| \$81.41  | \$68.24  |
| \$76.11  | \$61.20  |
| \$86.01  | \$63.42  |
| \$91.04  | \$64.97  |
| \$111.17 | \$68.41  |
| \$86.91  | \$67.35  |
| \$73.13  | \$64.04  |
| \$69.96  | \$61.21  |
| \$80.38  | \$67.43  |
| \$116.06 | \$87.82  |
| \$162.63 | \$109.89 |
| \$117.97 | \$98.92  |
| \$83.04  | \$69.60  |
| \$77.63  | \$62.43  |
| \$87.73  | \$64.69  |
| \$92.86  | \$66.27  |
| \$113.39 | \$69.78  |
| \$88.65  | \$68.70  |
| \$74.59  | \$65.32  |
| \$71.36  | \$62.43  |
| \$81.99  | \$68.77  |
| \$118.38 | \$89.58  |
| \$165.88 | \$112.08 |
| \$120.33 | \$100.90 |
| \$84.70  | \$70.99  |
| \$79.18  | \$63.68  |
| \$89.48  | \$65.98  |
| \$94.72  | \$67.59  |
| \$115.66 | \$71.17  |
| \$90.43  | \$70.07  |
| \$76.08  | \$66.63  |
| \$72.78  | \$63.68  |
| \$83.62  | \$70.15  |
| \$120.75 | \$91.37  |

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|         |         |
|---------|---------|
| \$49.12 | \$38.46 |
| \$50.15 | \$37.07 |
| \$54.45 | \$40.47 |
| \$56.76 | \$42.30 |
| \$60.34 | \$44.06 |
| \$60.22 | \$45.46 |
| \$60.67 | \$46.40 |
| \$62.39 | \$47.47 |
| \$65.16 | \$49.61 |
| \$66.92 | \$51.03 |
| \$69.64 | \$53.35 |
| \$71.04 | \$54.41 |
| \$72.46 | \$55.50 |
| \$73.91 | \$56.61 |
| \$75.38 | \$57.74 |
| \$76.89 | \$58.90 |
| \$78.43 | \$60.08 |
| \$80.00 | \$61.28 |
| \$81.60 | \$62.50 |
| \$83.23 | \$63.75 |
| \$84.90 | \$65.03 |
| \$86.59 | \$66.33 |
| \$88.33 | \$67.66 |
| \$90.09 | \$69.01 |
| \$91.89 | \$70.39 |
| \$93.73 | \$71.80 |
| \$95.61 | \$73.23 |
| \$97.52 | \$74.70 |
| \$99.47 | \$76.19 |

9                    10                    #                    12                    13                    14

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**recast**

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| <b>Nominal<br/>Calendar year</b> |                                  |           |            |                 |
|----------------------------------|----------------------------------|-----------|------------|-----------------|
| <b>Nominal<br/>Escalation</b>    | <b>Forecast -<br/>US\$/kW-mo</b> | <b>MW</b> | <b>MWh</b> | <b>US\$/MWh</b> |
|                                  | \$3.19                           | 165       | 963,600    | \$6.56          |
| 25%                              | \$3.98                           | 165       | 963,600    | \$8.18          |
| 41%                              | \$5.63                           | 165       | 963,600    | \$11.56         |
| 26%                              | \$7.08                           | 165       | 963,600    | \$14.55         |
| 22%                              | \$8.67                           | 165       | 963,600    | \$17.82         |
| 17%                              | \$10.16                          | 165       | 963,600    | \$20.88         |
| 7%                               | \$10.83                          | 165       | 963,600    | \$22.26         |
| 2%                               | \$11.05                          | 165       | 963,600    | \$22.70         |
| 2%                               | \$11.27                          | 165       | 963,600    | \$23.15         |
| 2%                               | \$11.49                          | 165       | 963,600    | \$23.61         |
| 2%                               | \$11.72                          | 165       | 963,600    | \$24.07         |
| 2%                               | \$11.95                          | 165       | 963,600    | \$24.55         |
| 2%                               | \$12.18                          | 165       | 963,600    | \$25.03         |
| 2%                               | \$12.42                          | 165       | 963,600    | \$25.53         |
| 2%                               | \$12.67                          | 165       | 963,600    | \$26.03         |
| 2%                               | \$12.92                          | 165       | 963,600    | \$26.55         |
| 2%                               | \$13.18                          | 165       | 963,600    | \$27.07         |
| 2%                               | \$13.44                          | 165       | 963,600    | \$27.61         |
| 2%                               | \$13.70                          | 165       | 963,600    | \$28.15         |
| 2%                               | \$13.97                          | 165       | 963,600    | \$28.71         |
| 2%                               | \$14.25                          | 165       | 963,600    | \$29.28         |
| 2%                               | \$14.53                          | 165       | 963,600    | \$29.86         |
| 2%                               | \$14.82                          | 165       | 963,600    | \$30.45         |
| 2%                               | \$15.11                          | 165       | 963,600    | \$31.05         |

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**NON-CONFIDENTIAL**

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1 **Request IR-15:**

2

3 **Reference Application, Section 4.13, Total Project Cost to Consumers.**

4

5 (a) **Please provide all data in electronic format used to produce Figure 4-4.**

6

7 (b) **Please provide all supporting data and documents regarding the price of Surplus**  
8 **Energy.**

9

10 (c) **Please provide all supporting data and documents regarding the availability of**  
11 **Surplus Energy.**

12

13 (d) **What is the quantity and specific pattern of annual delivery of surplus energy to**  
14 **NSP assumed in the NPV computations?**

15

16 **Response IR-15:**

17

18 (a-b,d) Please refer to NSUARB IR-37 Att 1.

19

20 (c) Please refer to response to CanWEA IR-26.

**NON-CONFIDENTIAL**

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1 **Request IR-16:**

2

3 **Reference: Appendix 4.01, Financial Model.**

4

5 **Please provide the financial model in spreadsheet format, with original formulas intact.**

6

7 Response IR-16:

8

9 Please refer to Attachment 1, filed electronically with all formulas intact.

# NSP Maritime Link Financial Projection

*DISCLAIMER --> This model has been prepared by NSP Maritime Link for illustrative purposes only; it is not necessarily reflective of final regulatory structure. No representation, warranty or undertaking (express or implied) is made with respect to the adequacy, completeness or accuracy of the model or the assumptions on which it is based.*



**NSP Maritime Link  
Financial Statements  
CAD Millions**

|                                 | Construct | Construct | Construct | Construct | Construct | Construct | 1      | 2     | 3     | 4     | 5     |
|---------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|--------|-------|-------|-------|-------|
| CAD Millions                    | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017   | 2018  | 2019  | 2020  | 2021  |
| <b>INCOME STATEMENT</b>         |           |           |           |           |           |           |        |       |       |       |       |
| <b>Revenue</b>                  |           |           |           |           |           |           |        |       |       |       |       |
| NSPML Revenue requirement*      | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 40.2   | 160.0 | 164.6 | 155.1 | 159.9 |
| Deferred Revenue                | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0    | 1.7   | 1.7   | 1.7   | 1.7   |
| <b>Total Revenue</b>            | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 40.2   | 161.7 | 166.3 | 156.8 | 161.5 |
| <b>Operating Expenses</b>       |           |           |           |           |           |           |        |       |       |       |       |
| Operations & Maintenance        | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 2.3    | 12.7  | 19.9  | 13.3  | 20.9  |
| <b>Total Operating Expenses</b> | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 2.3    | 12.7  | 19.9  | 13.3  | 20.9  |
| <b>EBITDA</b>                   | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 37.9   | 149.0 | 146.4 | 143.5 | 140.6 |
| Depreciation                    | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 12.4   | 49.5  | 49.5  | 49.5  | 49.5  |
| Regulatory Asset Depreciation   | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   |
| <b>EBIT</b>                     | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 25.5   | 99.5  | 96.9  | 94.0  | 91.1  |
| Interest                        | 0.0       | 0.0       | 0.0       | 9.0       | 20.7      | 37.8      | 47.4   | 46.4  | 45.2  | 43.8  | 42.5  |
| Capital loss (gain)             | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   |
| AFUDC                           | (0.5)     | (1.8)     | (6.7)     | (21.8)    | (43.0)    | (80.2)    | (75.7) | 0.0   | 0.0   | 0.0   | 0.0   |
| <b>EBT</b>                      | 0.5       | 1.8       | 6.7       | 12.7      | 22.2      | 42.5      | 53.8   | 53.1  | 51.7  | 50.2  | 48.6  |
| Regulatory Deferral of Tax      |           |           |           |           |           |           |        |       |       |       |       |
| Tax                             | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   |
| <b>Net Income</b>               | 0.5       | 1.8       | 6.7       | 12.7      | 22.2      | 42.5      | 53.8   | 53.1  | 51.7  | 50.2  | 48.6  |

\* Does not include the reduction in net fuel costs to be experienced in NS Power.

|   | Construct | Construct | Construct | Construct | Construct | Construct | 1      | 2      | 3      | 4       | 5       |         |
|---|-----------|-----------|-----------|-----------|-----------|-----------|--------|--------|--------|---------|---------|---------|
| CAD Millions                                      | Opening   | 2011      | 2012      | 2013      | 2014      | 2015      | 2016   | 2017   | 2018   | 2019    | 2020    | 2021    |
| <b>BALANCE SHEET</b>                              |           |           |           |           |           |           |        |        |        |         |         |         |
| <b>Assets</b>                                     |           |           |           |           |           |           |        |        |        |         |         |         |
| Current assets                                    |           |           |           |           |           |           |        |        |        |         |         |         |
| Receivables                                       |           | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0    | 3.3    | 13.3   | 13.7    | 12.9    | 13.3    |
| Total   | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0    | 3.3    | 13.3   | 13.7    | 12.9    | 13.3    |
| CWIP  |           | 10.5      | 28.3      | 132.0     | 495.0     | 979.9     | 1654.2 | 0.0    | 0.0    | 0.0     | 0.0     | 0.0     |
| Property, plant & equipment                       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 1743.9 | 1743.9 | 1743.9 | 1743.9  | 1743.9  | 1743.9  |
| Accumulated Depreciation (including Capital Loss) |           | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0    | (12.4) | (61.8) | (111.3) | (160.8) | (210.3) |
| Property, plant & equipment, net                  | 0.0       | 10.5      | 28.3      | 132.0     | 495.0     | 979.9     | 1654.2 | 1731.5 | 1682.0 | 1632.5  | 1583.1  | 1533.6  |
| Regulated Asset                                   |           | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0    | 0.0    | 0.0    | 0.0     | 0.0     | 0.0     |
| <b>Total</b>                                      | 0.0       | 10.5      | 28.3      | 132.0     | 495.0     | 979.9     | 1654.2 | 1734.8 | 1695.3 | 1646.2  | 1595.9  | 1546.9  |
| <b>Liabilities</b>                                |           |           |           |           |           |           |        |        |        |         |         |         |
| Current Liabilities                               |           | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0    | 0.2    | 1.2    | 1.9     | 1.3     | 2.0     |
| Regulated Liability                               |           | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0    | 57.9   | 56.3   | 54.6    | 53.0    | 51.3    |
| Long term debt                                    | 0.0       | 0.0       | 0.0       | 0.0       | 346.5     | 685.9     | 1150.6 | 1173.6 | 1146.5 | 1112.8  | 1079.2  | 1045.5  |
| <b>Total</b>                                      | 0.0       | 0.0       | 0.0       | 0.0       | 346.5     | 685.9     | 1150.6 | 1231.8 | 1204.0 | 1169.3  | 1133.4  | 1098.8  |
| <b>Equity</b>                                     |           |           |           |           |           |           |        |        |        |         |         |         |
| Shareholder's Equity                              | 0.0       | 10.0      | 26.0      | 123.0     | 126.8     | 250.0     | 417.1  | 417.1  | 417.1  | 417.1   | 417.1   | 417.1   |
| Retained Earnings                                 |           | 0.5       | 2.3       | 9.0       | 21.7      | 44.0      | 86.4   | 85.9   | 74.3   | 59.8    | 45.4    | 31.0    |
| <b>Total</b>                                      | 0.0       | 10.5      | 28.3      | 132.0     | 148.5     | 294.0     | 503.5  | 503.0  | 491.3  | 476.9   | 462.5   | 448.1   |
| <b>Total Liabilities and Equity</b>               | 0.0       | 10.5      | 28.3      | 132.0     | 495.0     | 979.9     | 1654.2 | 1734.8 | 1695.3 | 1646.2  | 1595.9  | 1546.9  |
| <b>Retained Earnings:</b>                         |           |           |           |           |           |           |        |        |        |         |         |         |
| Retained earnings, BOY                            |           | 0.0       | 0.5       | 2.3       | 9.0       | 21.7      | 44.0   | 86.4   | 85.9   | 74.3    | 59.8    | 45.4    |
| Dividends   |           | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0    | 54.3   | 64.7   | 66.1    | 64.6    | 63.1    |
| Net Earnings                                      |           | 0.5       | 1.8       | 6.7       | 12.7      | 22.2      | 42.5   | 53.8   | 53.1   | 51.7    | 50.2    | 48.6    |
| <b>Retained earnings, EOY</b>                     |           | 0.5       | 2.3       | 9.0       | 21.7      | 44.0      | 86.4   | 85.9   | 74.3   | 59.8    | 45.4    | 31.0    |
| Working Capital                                   | -         | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0    | 3.1    | 12.1   | 11.8    | 11.6    | 11.3    |
| Equity  |           | 100%      | 100%      | 100%      | 30%       | 30%       | 30%    | 30%    | 30%    | 30%     | 30%     | 30%     |
| Debt  |           | 0%        | 0%        | 0%        | 70%       | 70%       | 70%    | 70%    | 70%    | 70%     | 70%     | 70%     |

|                                       | Construct | Construct | Construct | Construct | Construct | Construct | 1       | 2    | 3     | 4    | 5    |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|---------|------|-------|------|------|
| CAD Millions                          | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017    | 2018 | 2019  | 2020 | 2021 |
| <b>STATEMENT OF CASH POSITION</b>     |           |           |           |           |           |           |         |      |       |      |      |
| <b>Cash from operating activities</b> |           |           |           |           |           |           |         |      |       |      |      |
| Projected earnings                    | 0         | 2         | 7         | 13        | 22        | 42        | 54      | 53   | 52    | 50   | 49   |
| Depreciation                          | -         | -         | -         | -         | -         | -         | 12      | 49   | 49    | 49   | 49   |
| Non-cash income (gain)                | -         | -         | -         | -         | -         | -         | -       | -    | -     | -    | -    |
| Change in Regulated Asset/Liability   | -         | -         | -         | -         | -         | -         | 58      | (2)  | (2)   | (2)  | (2)  |
| Change in working capital             | -         | -         | -         | -         | -         | -         | (3)     | (9)  | 0     | 0    | 0    |
|                                       | 0         | 2         | 7         | 13        | 22        | 42        | 121     | 92   | 100   | 98   | 97   |
| <b>Cash from investing activities</b> |           |           |           |           |           |           |         |      |       |      |      |
| CWIP                                  | (10)      | (18)      | (104)     | (363)     | (485)     | (674)     | 1,654   | -    | -     | -    | -    |
| Capital Additions                     | -         | -         | -         | -         | -         | -         | (1,744) | -    | -     | -    | -    |
|                                       | (10)      | (18)      | (104)     | (363)     | (485)     | (674)     | (90)    | -    | -     | -    | -    |
| <b>Cash from financing activities</b> |           |           |           |           |           |           |         |      |       |      |      |
| Issue (repayment) of debt             | -         | -         | -         | 346       | 339       | 465       | 23      | (27) | (34)  | (34) | (34) |
| Dividends                             | -         | -         | -         | -         | -         | -         | (54)    | (65) | (66)  | (65) | (63) |
| Change in Equity                      | 10        | 16        | 97        | 4         | 123       | 167       | -       | -    | -     | -    | -    |
|                                       | 10        | 16        | 97        | 350       | 463       | 632       | (31)    | (92) | (100) | (98) | (97) |
| Net change in cash                    | -         | -         | -         | -         | -         | -         | -       | -    | -     | -    | -    |
| Cash, beginning of year               | -         | -         | -         | -         | -         | -         | -       | -    | -     | -    | -    |
| Cash, end of year                     | -         | -         | -         | -         | -         | -         | -       | -    | -     | -    | -    |

|                          |   |   |   |   |   |   |    |    |    |    |    |
|--------------------------|---|---|---|---|---|---|----|----|----|----|----|
| <b>Months in Service</b> | - | - | - | - | - | - | 3  | 12 | 12 | 12 | 12 |
| Equity Normalization*    | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0  | 0  | 0  | 0  |

\*We assume the O&M True-up payment is made at the end of the year of first commercial power. The equity balance needs to be adjusted to account for this payment or else NI will be understated.

**NSP Maritime Link  
Financial Statements  
CAD Millions**

| <b>INCOME STATEMENT</b>         | <b>6</b>     | <b>7</b>     | <b>8</b>     | <b>9</b>     | <b>10</b>    | <b>11</b>    | <b>12</b>    | <b>13</b>    | <b>14</b>    | <b>15</b>    | <b>16</b>    | <b>17</b>    | <b>18</b>    | <b>19</b>    | <b>20</b>    | <b>21</b>    | <b>22</b>    | <b>23</b>    | <b>24</b>    | <b>25</b>    | <b>26</b>    | <b>27</b>    | <b>28</b>    | <b>29</b>    |  |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| <b>CAD Millions</b>             | 2022         | 2023         | 2024         | 2025         | 2026         | 2027         | 2028         | 2029         | 2030         | 2031         | 2032         | 2033         | 2034         | 2035         | 2036         | 2037         | 2038         | 2039         | 2040         | 2041         | 2042         | 2043         | 2044         | 2045         |  |
| <b>Revenue</b>                  |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |  |
| NSPML Revenue requirement*      | 150.3        | 147.5        | 145.0        | 144.6        | 163.4        | 154.4        | 153.2        | 151.8        | 150.3        | 158.0        | 146.9        | 145.1        | 143.2        | 141.2        | 149.7        | 137.0        | 134.8        | 132.6        | 130.3        | 139.9        | 125.6        | 123.2        | 121.2        | 118.3        |  |
| Deferred Revenue                | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          |  |
| <b>Total Revenue</b>            | <b>152.0</b> | <b>149.2</b> | <b>146.6</b> | <b>146.2</b> | <b>165.1</b> | <b>156.1</b> | <b>154.8</b> | <b>153.5</b> | <b>151.9</b> | <b>159.6</b> | <b>148.6</b> | <b>146.8</b> | <b>144.9</b> | <b>142.9</b> | <b>151.3</b> | <b>138.7</b> | <b>136.5</b> | <b>134.2</b> | <b>131.9</b> | <b>141.5</b> | <b>127.2</b> | <b>124.8</b> | <b>122.9</b> | <b>120.0</b> |  |
| <b>Operating Expenses</b>       |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |  |
| Operations & Maintenance        | 14.3         | 14.3         | 14.7         | 15.1         | 25.0         | 17.4         | 17.9         | 18.3         | 18.8         | 28.6         | 19.7         | 20.2         | 20.7         | 21.2         | 32.3         | 22.3         | 22.9         | 23.4         | 24.0         | 36.6         | 25.2         | 25.9         | 27.0         | 27.2         |  |
| <b>Total Operating Expenses</b> | <b>14.3</b>  | <b>14.3</b>  | <b>14.7</b>  | <b>15.1</b>  | <b>25.0</b>  | <b>17.4</b>  | <b>17.9</b>  | <b>18.3</b>  | <b>18.8</b>  | <b>28.6</b>  | <b>19.7</b>  | <b>20.2</b>  | <b>20.7</b>  | <b>21.2</b>  | <b>32.3</b>  | <b>22.3</b>  | <b>22.9</b>  | <b>23.4</b>  | <b>24.0</b>  | <b>36.6</b>  | <b>25.2</b>  | <b>25.9</b>  | <b>27.0</b>  | <b>27.2</b>  |  |
| <b>EBITDA</b>                   | <b>137.7</b> | <b>134.8</b> | <b>131.9</b> | <b>131.2</b> | <b>140.1</b> | <b>138.6</b> | <b>137.0</b> | <b>135.1</b> | <b>133.2</b> | <b>131.1</b> | <b>128.9</b> | <b>126.6</b> | <b>124.1</b> | <b>121.6</b> | <b>119.0</b> | <b>116.4</b> | <b>113.6</b> | <b>110.8</b> | <b>107.9</b> | <b>105.0</b> | <b>102.0</b> | <b>99.0</b>  | <b>95.9</b>  | <b>92.8</b>  |  |
| Depreciation                    | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         |  |
| Regulatory Asset Depreciation   | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |  |
| <b>EBIT</b>                     | <b>88.2</b>  | <b>85.4</b>  | <b>82.5</b>  | <b>81.7</b>  | <b>90.6</b>  | <b>89.2</b>  | <b>87.5</b>  | <b>85.7</b>  | <b>83.7</b>  | <b>81.6</b>  | <b>79.4</b>  | <b>77.1</b>  | <b>74.7</b>  | <b>72.2</b>  | <b>69.6</b>  | <b>66.9</b>  | <b>64.1</b>  | <b>61.3</b>  | <b>58.4</b>  | <b>55.5</b>  | <b>52.5</b>  | <b>49.5</b>  | <b>46.4</b>  | <b>43.3</b>  |  |
| Interest                        | 41.1         | 39.8         | 38.5         | 37.1         | 35.8         | 34.5         | 33.1         | 31.8         | 30.4         | 29.1         | 27.7         | 26.4         | 25.0         | 23.7         | 22.4         | 21.0         | 19.7         | 18.3         | 17.0         | 15.6         | 14.3         | 12.9         | 11.6         | 10.2         |  |
| Capital loss (gain)             | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |  |
| AFUDC                           | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |  |
| <b>EBT</b>                      | <b>47.1</b>  | <b>45.5</b>  | <b>44.0</b>  | <b>44.6</b>  | <b>54.9</b>  | <b>54.7</b>  | <b>54.4</b>  | <b>53.9</b>  | <b>53.3</b>  | <b>52.5</b>  | <b>51.7</b>  | <b>50.7</b>  | <b>49.6</b>  | <b>48.5</b>  | <b>47.2</b>  | <b>45.9</b>  | <b>44.5</b>  | <b>43.0</b>  | <b>41.5</b>  | <b>39.9</b>  | <b>38.2</b>  | <b>36.6</b>  | <b>34.8</b>  | <b>33.1</b>  |  |
| Regulatory Deferral of Tax      | 0.0          | 0.0          | 0.0          | 2.1          | 13.9         | 15.3         | 16.5         | 17.6         | 18.5         | 19.3         | 19.9         | 20.5         | 21.0         | 21.3         | 21.6         | 21.8         | 22.0         | 22.0         | 22.0         | 22.0         | 21.9         | 21.8         | 21.6         | 21.3         |  |
| Tax                             | 0.0          | 0.0          | 0.0          | 2.1          | 13.9         | 15.3         | 16.5         | 17.6         | 18.5         | 19.3         | 19.9         | 20.5         | 21.0         | 21.3         | 21.6         | 21.8         | 22.0         | 22.0         | 22.0         | 22.0         | 21.9         | 21.8         | 21.6         | 21.3         |  |
| <b>Net Income</b>               | <b>47.1</b>  | <b>45.5</b>  | <b>44.0</b>  | <b>42.5</b>  | <b>40.9</b>  | <b>39.4</b>  | <b>37.9</b>  | <b>36.4</b>  | <b>34.8</b>  | <b>33.3</b>  | <b>31.7</b>  | <b>30.2</b>  | <b>28.7</b>  | <b>27.1</b>  | <b>25.6</b>  | <b>24.0</b>  | <b>22.5</b>  | <b>21.0</b>  | <b>19.4</b>  | <b>17.9</b>  | <b>16.3</b>  | <b>14.8</b>  | <b>13.3</b>  | <b>11.7</b>  |  |

\* Does not include the reduction in net fuel costs to be exp.

| <b>BALANCE SHEET</b>                              | <b>6</b>      | <b>7</b>      | <b>8</b>      | <b>9</b>      | <b>10</b>     | <b>11</b>     | <b>12</b>     | <b>13</b>     | <b>14</b>     | <b>15</b>     | <b>16</b>     | <b>17</b>    | <b>18</b>    | <b>19</b>    | <b>20</b>    | <b>21</b>    | <b>22</b>    | <b>23</b>    | <b>24</b>    | <b>25</b>    | <b>26</b>    | <b>27</b>    | <b>28</b>    | <b>29</b>    |  |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| <b>CAD Millions</b>                               | 2022          | 2023          | 2024          | 2025          | 2026          | 2027          | 2028          | 2029          | 2030          | 2031          | 2032          | 2033         | 2034         | 2035         | 2036         | 2037         | 2038         | 2039         | 2040         | 2041         | 2042         | 2043         | 2044         | 2045         |  |
| <b>Assets</b>                                     |               |               |               |               |               |               |               |               |               |               |               |              |              |              |              |              |              |              |              |              |              |              |              |              |  |
| Current assets                                    |               |               |               |               |               |               |               |               |               |               |               |              |              |              |              |              |              |              |              |              |              |              |              |              |  |
| Receivables                                       | 12.5          | 12.3          | 12.1          | 12.0          | 13.6          | 12.8          | 12.7          | 12.6          | 12.5          | 13.1          | 12.2          | 12.1         | 11.9         | 11.7         | 12.4         | 11.4         | 11.2         | 11.0         | 10.9         | 11.6         | 10.5         | 10.3         | 10.1         | 9.9          |  |
| <b>Total</b>                                      | <b>12.5</b>   | <b>12.3</b>   | <b>12.1</b>   | <b>12.0</b>   | <b>13.6</b>   | <b>12.8</b>   | <b>12.7</b>   | <b>12.6</b>   | <b>12.5</b>   | <b>13.1</b>   | <b>12.2</b>   | <b>12.1</b>  | <b>11.9</b>  | <b>11.7</b>  | <b>12.4</b>  | <b>11.4</b>  | <b>11.2</b>  | <b>11.0</b>  | <b>10.9</b>  | <b>11.6</b>  | <b>10.5</b>  | <b>10.3</b>  | <b>10.1</b>  | <b>9.9</b>   |  |
| CWIP  | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |  |
| Property, plant & equipment                       | 1743.9        | 1743.9        | 1743.9        | 1743.9        | 1743.9        | 1743.9        | 1743.9        | 1743.9        | 1743.9        | 1743.9        | 1743.9        | 1743.9       | 1743.9       | 1743.9       | 1743.9       | 1743.9       | 1743.9       | 1743.9       | 1743.9       | 1743.9       | 1743.9       | 1743.9       | 1743.9       | 1743.9       |  |
| Accumulated Depreciation (including Capital Loss) | (259.7)       | (309.2)       | (358.7)       | (408.2)       | (457.6)       | (507.1)       | (556.6)       | (606.1)       | (655.6)       | (705.0)       | (754.5)       | (804.0)      | (853.5)      | (902.9)      | (952.4)      | (1001.9)     | (1051.4)     | (1100.8)     | (1150.3)     | (1199.8)     | (1249.3)     | (1298.7)     | (1348.2)     | (1397.7)     |  |
| Property, plant & equipment, net                  | 1484.1        | 1434.6        | 1385.2        | 1335.7        | 1286.2        | 1236.7        | 1187.3        | 1137.8        | 1088.3        | 1038.8        | 989.3         | 939.9        | 890.4        | 840.9        | 791.4        | 742.0        | 692.5        | 643.0        | 593.5        | 544.1        | 494.6        | 445.1        | 395.6        | 346.2        |  |
| Regulated Asset                                   | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |  |
| <b>Total</b>                                      | <b>1496.6</b> | <b>1446.9</b> | <b>1397.2</b> | <b>1347.7</b> | <b>1299.8</b> | <b>1249.6</b> | <b>1200.0</b> | <b>1150.4</b> | <b>1100.8</b> | <b>1052.0</b> | <b>1001.6</b> | <b>951.9</b> | <b>902.3</b> | <b>852.7</b> | <b>803.9</b> | <b>753.4</b> | <b>703.7</b> | <b>654.1</b> | <b>604.4</b> | <b>555.7</b> | <b>505.1</b> | <b>455.4</b> | <b>405.8</b> | <b>356.0</b> |  |
| <b>Liabilities</b>                                |               |               |               |               |               |               |               |               |               |               |               |              |              |              |              |              |              |              |              |              |              |              |              |              |  |
| Current Liabilities                               | 1.4           | 1.4           | 1.4           | 1.4           | 2.4           | 1.7           | 1.7           | 1.8           | 1.8           | 2.7           | 1.9           | 1.9          | 2.0          | 2.0          | 3.1          | 2.1          | 2.2          | 2.2          | 2.3          | 3.5          | 2.4          | 2.5          | 2.6          | 2.6          |  |
| Regulated Liability                               | 49.6          | 48.0          | 46.3          | 44.7          | 43.0          | 41.4          | 39.7          | 38.1          | 36.4          | 34.8          | 33.1          | 31.4         | 29.8         | 28.1         | 26.5         | 24.8         | 23.2         | 21.5         | 19.9         | 18.2         | 16.5         | 14.9         | 13.2         | 11.6         |  |
| Long term debt                                    | 1011.9        | 978.3         | 944.6         | 911.1         | 878.0         | 844.6         | 811.0         | 777.4         | 743.8         | 710.1         | 676.6         | 643.0        | 609.4        | 575.8        | 542.0        | 508.5        | 474.9        | 441.2        | 407.6        | 373.8        | 340.3        | 306.6        | 272.9        | 239.3        |  |
| <b>Total</b>                                      | <b>1062.9</b> | <b>1027.6</b> | <b>992.4</b>  | <b>957.2</b>  | <b>923.5</b>  | <b>887.6</b>  | <b>852.4</b>  | <b>817.2</b>  | <b>782.0</b>  | <b>747.6</b>  | <b>711.6</b>  | <b>676.4</b> | <b>641.1</b> | <b>605.9</b> | <b>571.6</b> | <b>535.5</b> | <b>500.2</b> | <b>465.0</b> | <b>429.7</b> | <b>395.5</b> | <b>359.2</b> | <b>324.0</b> | <b>288.8</b> | <b>253.5</b> |  |
| <b>Equity</b>                                     |               |               |               |               |               |               |               |               |               |               |               |              |              |              |              |              |              |              |              |              |              |              |              |              |  |
| Shareholder's Equity                              | 417.1         | 417.1         | 404.8         | 390.5         | 376.3         | 362.0         | 347.6         | 333.2         | 318.8         | 304.3         | 290.0         | 275.6        | 261.2        | 246.8        | 232.3        | 217.9        | 203.5        | 189.1        | 174.7        | 160.2        | 145.8        | 131.4        | 117.0        | 102.6        |  |
| Retained Earnings                                 | 16.6          | 2.2           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |  |
| <b>Total</b>                                      | <b>433.7</b>  | <b>419.3</b>  | <b>404.8</b>  | <b>390.5</b>  | <b>376.3</b>  | <b>362.0</b>  | <b>347.6</b>  | <b>333.2</b>  | <b>318.8</b>  | <b>304.3</b>  | <b>290.0</b>  | <b>275.6</b> | <b>261.2</b> | <b>246.8</b> | <b>232.3</b> | <b>217.9</b> | <b>203.5</b> | <b>189.1</b> | <b>174.7</b> | <b>160.2</b> | <b>145.8</b> | <b>131.4</b> | <b>117.0</b> | <b>102.6</b> |  |
| <b>Total Liabilities and Equity</b>               | <b>1496.6</b> | <b>1446.9</b> | <b>1397.2</b> | <b>1347.7</b> | <b>1299.8</b> | <b>1249.6</b> | <b>1200.0</b> | <b>1150.4</b> | <b>1100.8</b> | <b>1052.0</b> | <b>1001.6</b> | <b>951.9</b> | <b>902.3</b> | <b>852.7</b> | <b>803.9</b> | <b>753.4</b> | <b>703.7</b> | <b>654.1</b> | <b>604.4</b> | <b>555.7</b> | <b>505.1</b> | <b>455.4</b> | <b>405.8</b> | <b>356.0</b> |  |
| <b>Retained Earnings:</b>                         |               |               |               |               |               |               |               |               |               |               |               |              |              |              |              |              |              |              |              |              |              |              |              |              |  |
| Retained earnings, BOY                            | 31.0          | 16.6          | 2.2           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |  |
| Dividends   | 61.5          | 60.0          | 46.2          | 42.5          | 40.9          | 39.4          | 37.9          | 36.4          | 34.8          | 33.3          | 31.7          | 30.2         | 28.7         | 27.1         | 25.6         | 24.0         | 22.5         | 21.0         | 19.4         | 17.9         | 16.3         | 14.8         | 13.3         | 11.7         |  |
| Net Earnings                                      | 47.1          | 45.5          | 44.0          | 42.5</        |               |               |               |               |               |               |               |              |              |              |              |              |              |              |              |              |              |              |              |              |  |

**NSP Maritime Link**  
**Financial Statements**  
**CAD Millions**

| <b>INCOME STATEMENT</b>         | <b>30</b>    | <b>31</b>    | <b>32</b>    | <b>33</b>    | <b>34</b>    | <b>35</b>    | <b>36</b>   |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|
| <b>CAD Millions</b>             | 2046         | 2047         | 2048         | 2049         | 2050         | 2051         | 2052        |
| <b>Revenue</b>                  |              |              |              |              |              |              |             |
| NSPML Revenue requirement*      | 129.3        | 113.3        | 110.8        | 108.3        | 105.8        | 118.5        | 73.5        |
| Deferred Revenue                | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7          | 1.7         |
| <b>Total Revenue</b>            | <b>131.0</b> | <b>115.0</b> | <b>112.5</b> | <b>110.0</b> | <b>107.5</b> | <b>120.2</b> | <b>75.1</b> |
| <b>Operating Expenses</b>       |              |              |              |              |              |              |             |
| Operations & Maintenance        | 41.4         | 28.5         | 29.3         | 30.0         | 30.7         | 46.8         | 24.2        |
| <b>Total Operating Expenses</b> | <b>41.4</b>  | <b>28.5</b>  | <b>29.3</b>  | <b>30.0</b>  | <b>30.7</b>  | <b>46.8</b>  | <b>24.2</b> |
| <b>EBITDA</b>                   | <b>89.6</b>  | <b>86.4</b>  | <b>83.2</b>  | <b>80.0</b>  | <b>76.7</b>  | <b>73.4</b>  | <b>50.9</b> |
| Depreciation                    | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 49.5         | 37.1        |
| Regulatory Asset Depreciation   | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0         |
| <b>EBIT</b>                     | <b>40.2</b>  | <b>37.0</b>  | <b>33.8</b>  | <b>30.5</b>  | <b>27.2</b>  | <b>23.9</b>  | <b>13.8</b> |
| Interest                        | 8.9          | 7.5          | 6.2          | 4.9          | 3.5          | 2.2          | 0.7         |
| Capital loss (gain)             | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 12.2        |
| AFUDC                           | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0         |
| <b>EBT</b>                      | <b>31.3</b>  | <b>29.4</b>  | <b>27.6</b>  | <b>25.7</b>  | <b>23.7</b>  | <b>21.8</b>  | <b>0.8</b>  |
| Regulatory Deferral of Tax      |              |              |              |              |              |              |             |
| Tax                             | 21.1         | 20.8         | 20.5         | 20.1         | 19.7         | 19.3         | 0.0         |
| <b>Net Income</b>               | <b>10.2</b>  | <b>8.6</b>   | <b>7.1</b>   | <b>5.6</b>   | <b>4.0</b>   | <b>2.5</b>   | <b>0.8</b>  |

\* Does not include the reduction in net fuel costs to be exp.

| <b>BALANCE SHEET</b>                              | <b>30</b>    | <b>31</b>    | <b>32</b>    | <b>33</b>    | <b>34</b>    | <b>35</b>   | <b>36</b>    |
|---|--------------|--------------|--------------|--------------|--------------|-------------|--------------|
| <b>CAD Millions</b>                               | 2046         | 2047         | 2048         | 2049         | 2050         | 2051        | 2052         |
| <b>Assets</b>                                     |              |              |              |              |              |             |              |
| Current assets                                    |              |              |              |              |              |             |              |
| Receivables                                       | 10.8         | 9.5          | 9.3          | 9.0          | 8.8          | 9.6         | 0.0          |
| <b>Total</b>                                      | <b>10.8</b>  | <b>9.5</b>   | <b>9.3</b>   | <b>9.0</b>   | <b>8.8</b>   | <b>9.6</b>  | <b>0.0</b>   |
| CWIP  | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0         | 0.0          |
| Property, plant & equipment                       | 1743.9       | 1743.9       | 1743.9       | 1743.9       | 1743.9       | 1743.9      | 1743.9       |
| Accumulated Depreciation (including Capital Loss) | (1447.2)     | (1496.6)     | (1546.1)     | (1595.6)     | (1645.1)     | (1694.5)    | (1743.9)     |
| Property, plant & equipment, net                  | 296.7        | 247.2        | 197.7        | 148.3        | 98.8         | 49.3        | 0.0          |
| Regulated Asset                                   | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0         | 0.0          |
| <b>Total</b>                                      | <b>307.5</b> | <b>256.7</b> | <b>207.0</b> | <b>157.3</b> | <b>107.6</b> | <b>58.9</b> | <b>0.0</b>   |
| <b>Liabilities</b>                                |              |              |              |              |              |             |              |
| Current Liabilities                               | 4.0          | 2.7          | 2.8          | 2.9          | 2.9          | 4.5         | 0.0          |
| Regulated Liability                               | 9.9          | 8.3          | 6.6          | 5.0          | 3.3          | 1.7         | 0.0          |
| Long term debt                                    | 205.5        | 172.0        | 138.3        | 104.6        | 71.0         | 36.9        | (0.0)        |
| <b>Total</b>                                      | <b>219.4</b> | <b>183.0</b> | <b>147.7</b> | <b>112.5</b> | <b>77.2</b>  | <b>43.1</b> | <b>0.0</b>   |
| <b>Equity</b>                                     |              |              |              |              |              |             |              |
| Shareholder's Equity                              | 88.1         | 73.7         | 59.3         | 44.8         | 30.4         | 15.8        | (0.0)        |
| Retained Earnings                                 | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0         | 0.0          |
| <b>Total</b>                                      | <b>88.1</b>  | <b>73.7</b>  | <b>59.3</b>  | <b>44.8</b>  | <b>30.4</b>  | <b>15.8</b> | <b>(0.0)</b> |
| <b>Total Liabilities and Equity</b>               | <b>307.5</b> | <b>256.7</b> | <b>207.0</b> | <b>157.3</b> | <b>107.6</b> | <b>58.9</b> | <b>0.0</b>   |
| <b>Retained Earnings:</b>                         |              |              |              |              |              |             |              |
| Retained earnings, BOY                            | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0         | 0.0          |
| Dividends   | 10.2         | 8.6          | 7.1          | 5.6          | 4.0          | 2.5         | 0.8          |
| Net Earnings                                      | 10.2         | 8.6          | 7.1          | 5.6          | 4.0          | 2.5         | 0.8          |
| <b>Retained earnings, EOY</b>                     | <b>0.0</b>   | <b>0.0</b>   | <b>0.0</b>   | <b>0.0</b>   | <b>0.0</b>   | <b>0.0</b>  | <b>0.0</b>   |
| Working Capital                                   | 6.8          | 6.7          | 6.4          | 6.2          | 5.9          | 5.1         | 0.0          |
| Equity  | 30%          | 30%          | 30%          | 30%          | 30%          | 30%         | 0%           |
| Debt  | 70%          | 70%          | 70%          | 70%          | 70%          | 70%         | 0%           |

| <b>STATEMENT OF CASH POSITION</b>     | <b>30</b>   | <b>31</b>   | <b>32</b>   | <b>33</b>   | <b>34</b>   | <b>35</b>   | <b>36</b>   |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>CAD Millions</b>                   | 2046        | 2047        | 2048        | 2049        | 2050        | 2051        | 2052        |
| <b>Cash from operating activities</b> |             |             |             |             |             |             |             |
| Projected earnings                    | 10          | 9           | 7           | 6           | 4           | 2           | 1           |
| Depreciation                          | 49          | 49          | 49          | 49          | 49          | 49          | 37          |
| Non-cash income (gain)                | -           | -           | -           | -           | -           | -           | 12          |
| Change in Regulated Asset/Liability   | (2)         | (2)         | (2)         | (2)         | (2)         | (2)         | (2)         |
| Change in working capital             | 0           | 0           | 0           | 0           | 0           | 1           | 5           |
|                                       | <b>58</b>   | <b>57</b>   | <b>55</b>   | <b>54</b>   | <b>52</b>   | <b>51</b>   | <b>54</b>   |
| <b>Cash from investing activities</b> |             |             |             |             |             |             |             |
| CWIP                                  | -           | -           | -           | -           | -           | -           | -           |
| Capital Additions                     | -           | -           | -           | -           | -           | -           | -           |
| <b>Cash from financing activities</b> |             |             |             |             |             |             |             |
| Issue (repayment) of debt             | (34)        | (34)        | (34)        | (34)        | (34)        | (34)        | (37)        |
| Dividends                             | (10)        | (9)         | (7)         | (6)         | (4)         | (2)         | (1)         |
| Change in Equity                      | (14)        | (14)        | (14)        | (14)        | (14)        | (15)        | (16)        |
|                                       | <b>(58)</b> | <b>(57)</b> | <b>(55)</b> | <b>(54)</b> | <b>(52)</b> | <b>(51)</b> | <b>(54)</b> |
| Net change in cash                    | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         | (0.0)       |
| Cash, beginning of year               | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Cash, end of year                     | <b>0</b>    | <b>0</b>    | <b>0</b>    | <b>0</b>    | <b>0</b>    | <b>0</b>    | <b>0</b>    |

|                          |           |           |           |           |           |           |          |
|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| <b>Months in Service</b> | <b>12</b> | <b>12</b> | <b>12</b> | <b>12</b> | <b>12</b> | <b>12</b> | <b>9</b> |
| Equity Normalization*    | 0         | 0         | 0         | 0         | 0         | 0         | 0        |

\*We assume the O&M True-up payment is made at the en

**NSP Maritime Link  
Model Input Summary Sheet**

**Capital Structure**

|                        |           |
|------------------------|-----------|
| Equity %               | 30.00%    |
| Debt %                 | 70.00%    |
| Total Base MWhr's (MF) | 4,930,000 |
| Project Term (Years)   | 35        |

**First Commercial power**

|        |   |
|--------|---|
| May-17 | - |
| Jun-17 | - |
| Jul-17 | - |
| Aug-17 | - |
| Sep-17 | - |
| Oct-17 | - |
| Nov-17 | - |
| Dec-17 | - |

|   | Construct | Construct | Construct | Construct | Construct | Construct | 1      | 2      | 3      | 4      | 5      |
|---|-----------|-----------|-----------|-----------|-----------|-----------|--------|--------|--------|--------|--------|
| Millions CAD                            | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017   | 2018   | 2019   | 2020   | 2021   |
| Interest Rate                           | 4.00%     | 4.00%     | 4.00%     | 4.00%     | 4.00%     | 4.00%     | 4.00%  | 4.00%  | 4.00%  | 4.00%  | 4.00%  |
| Cost of Equity                          | 9.10%     | 9.10%     | 9.10%     | 9.40%     | 10.08%    | 10.53%    | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% |
| Corporate Tax Rate                      | 31.00%    | 31.00%    | 31.00%    | 31.00%    | 31.00%    | 31.00%    | 31.00% | 31.00% | 31.00% | 31.00% | 31.00% |
| Line Losses                             |           |           |           |           |           |           | 9.2%   | 9.2%   | 9.2%   | 9.2%   | 9.2%   |
| Operating & Maintenance - Maritime Link |           |           |           |           |           |           | 9.3    | 12.7   | 19.9   | 13.3   | 20.9   |
| Operating & Maintenance - 20% of Total  |           |           |           |           |           |           | 8.9    | 11.2   | 14.0   | 11.8   | 14.7   |
| Days revenues in current assets         | 30        | 30        | 30        | 30        | 30        | 30        | 30     | 30     | 30     | 30     | 30     |
| Days OM&G in Payables                   | 35        | 35        | 35        | 35        | 35        | 35        | 35     | 35     | 35     | 35     | 35     |
| Capital Addition                        | -         | -         | -         | -         | -         | -         | 1,744  | -      | -      | -      | -      |
| AFUDC                                   | 0         | 2         | 7         | 22        | 43        | 80        | 76     |        |        |        |        |

**CAPITAL SCHEDULES**

|          |       |
|----------|-------|
| Class    | 47    |
| CCA Rate | 8.00% |

| Capital Spend Profile (millions CAD) | 2011 | 2012 | 2013  | 2014  | 2015  | 2016    | 2017    | 2018    | 2019    | 2020    | 2021    |
|--------------------------------------|------|------|-------|-------|-------|---------|---------|---------|---------|---------|---------|
| January                              | 0.8  | 1.3  | 4.5   | 7.5   | 23.2  | 21.9    | 1.6     |         |         |         |         |
| February                             | 0.8  | 1.3  | 5.4   | 9.8   | 28.0  | 38.4    | 1.6     |         |         |         |         |
| March                                | 0.8  | 1.3  | 7.3   | 9.8   | 36.1  | 38.7    | 1.6     |         |         |         |         |
| April                                | 0.8  | 1.3  | 7.8   | 11.6  | 33.9  | 76.1    | 1.6     |         |         |         |         |
| May                                  | 0.8  | 1.3  | 4.6   | 15.2  | 39.6  | 86.2    | 1.6     |         |         |         |         |
| June                                 | 0.8  | 1.3  | 5.6   | 22.2  | 72.7  | 102.2   | 1.6     |         |         |         |         |
| July                                 | 0.8  | 1.3  | 4.5   | 19.5  | 35.1  | 58.9    | 1.6     |         |         |         |         |
| August                               | 0.8  | 1.3  | 13.8  | 22.7  | 30.2  | 59.1    | 1.6     |         |         |         |         |
| September                            | 0.8  | 1.3  | 5.3   | 25.6  | 29.2  | 42.9    | 1.6     |         |         |         |         |
| October                              | 0.8  | 1.3  | 6.4   | 26.5  | 34.7  | 20.8    | -       |         |         |         |         |
| November                             | 0.8  | 1.3  | 10.1  | 21.6  | 24.3  | 19.3    | -       |         |         |         |         |
| December                             | 0.8  | 1.3  | 10.9  | 22.3  | 55.0  | 28.8    | -       |         |         |         |         |
| Total                                | 10.0 | 16.0 | 86.3  | 214.3 | 442.0 | 593.2   | 14.0    | -       | -       | -       | -       |
| Cumulative Spend                     | 10.0 | 26.0 | 112.3 | 326.6 | 768.6 | 1,361.8 | 1,375.8 | 1,375.8 | 1,375.8 | 1,375.8 | 1,375.8 |

|       |      |
|-------|------|
| Class | LAND |
|-------|------|

| Capital Spend Profile (millions CAD) | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|--------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| January                              | -    | -    | -    | 0.2  | -    | -    |      |      |      |      |      |
| February                             | -    | -    | -    | -    | -    | -    |      |      |      |      |      |
| March                                | -    | -    | 0.1  | -    | -    | -    |      |      |      |      |      |
| April                                | -    | -    | 0.1  | 0.1  | -    | 0.1  |      |      |      |      |      |
| May                                  | -    | -    | 0.1  | -    | -    | 0.1  |      |      |      |      |      |
| June                                 | -    | -    | 0.1  | -    | -    | 0.1  |      |      |      |      |      |
| July                                 | -    | -    | 0.1  | 0.1  | -    | 0.2  |      |      |      |      |      |
| August                               | -    | -    | 1.1  | 0.1  | -    | 0.2  |      |      |      |      |      |
| September                            | -    | -    | 1.1  | -    | -    | 0.2  |      |      |      |      |      |
| October                              | -    | -    | 2.9  | -    | -    | -    |      |      |      |      |      |
| November                             | -    | -    | 2.9  | 0.2  | -    | -    |      |      |      |      |      |
| December                             | -    | -    | 2.4  | -    | -    | -    |      |      |      |      |      |
| Total                                | -    | -    | 10.7 | 0.7  | -    | 0.8  | -    | -    | -    | -    | -    |
| Cumulative Spend                     | -    | -    | 10.7 | 11.4 | 11.4 | 12.2 | 12.2 | 12.2 | 12.2 | 12.2 | 12.2 |





|          |       |
|----------|-------|
| Class    | ECE   |
| CCA Rate | 7.00% |

| Capital Spend Profile (millions CAD) | 2011 | 2012 | 2013 | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  |
|--------------------------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| January                              |      |      |      | 126.2 |       |       |       |       |       |       |       |
| February                             |      |      |      |       |       |       |       |       |       |       |       |
| March                                |      |      |      |       |       |       |       |       |       |       |       |
| April                                |      |      |      |       |       |       |       |       |       |       |       |
| May                                  |      |      |      |       |       |       |       |       |       |       |       |
| June                                 |      |      |      |       |       |       |       |       |       |       |       |
| July                                 |      |      |      |       |       |       |       |       |       |       |       |
| August                               |      |      |      |       |       |       |       |       |       |       |       |
| September                            |      |      |      |       |       |       |       |       |       |       |       |
| October                              |      |      |      |       |       |       |       |       |       |       |       |
| November                             |      |      |      |       |       |       |       |       |       |       |       |
| December                             |      |      |      |       |       |       |       |       |       |       |       |
| Total                                | -    | -    | -    | 126.2 | -     | -     | -     | -     | -     | -     | -     |
| Cumulative Spend                     | -    | -    | -    | 126.2 | 126.2 | 126.2 | 126.2 | 126.2 | 126.2 | 126.2 | 126.2 |

**TOTAL CAPITAL SPEND**

| Capital Spend Profile (millions CAD) | 2011 | 2012 | 2013  | 2014  | 2015  | 2016    | 2017    | 2018    | 2019    | 2020    | 2021    |
|--------------------------------------|------|------|-------|-------|-------|---------|---------|---------|---------|---------|---------|
| January                              | 0.8  | 1.3  | 4.5   | 133.9 | 23.2  | 21.9    | 1.6     | -       | -       | -       | -       |
| February                             | 0.8  | 1.3  | 5.4   | 9.8   | 28.0  | 38.4    | 1.6     | -       | -       | -       | -       |
| March                                | 0.8  | 1.3  | 7.4   | 9.8   | 36.1  | 38.7    | 1.6     | -       | -       | -       | -       |
| April                                | 0.8  | 1.3  | 7.8   | 11.7  | 33.9  | 76.2    | 1.6     | -       | -       | -       | -       |
| May                                  | 0.8  | 1.3  | 4.7   | 15.2  | 39.6  | 86.2    | 1.6     | -       | -       | -       | -       |
| June                                 | 0.8  | 1.3  | 5.7   | 22.2  | 72.7  | 102.3   | 1.6     | -       | -       | -       | -       |
| July                                 | 0.8  | 1.3  | 4.6   | 19.6  | 35.1  | 59.1    | 1.6     | -       | -       | -       | -       |
| August                               | 0.8  | 1.3  | 14.9  | 22.8  | 30.2  | 59.2    | 1.6     | -       | -       | -       | -       |
| September                            | 0.8  | 1.3  | 6.4   | 25.6  | 29.2  | 43.0    | 1.6     | -       | -       | -       | -       |
| October                              | 0.8  | 1.3  | 9.3   | 26.5  | 34.7  | 20.8    | -       | -       | -       | -       | -       |
| November                             | 0.8  | 1.3  | 13.0  | 21.9  | 24.3  | 19.3    | -       | -       | -       | -       | -       |
| December                             | 0.8  | 1.3  | 13.2  | 22.3  | 55.0  | 28.8    | -       | -       | -       | -       | -       |
| Total                                | 10.0 | 16.0 | 97.0  | 341.2 | 442.0 | 594.0   | 14.0    | -       | -       | -       | -       |
| Cumulative Spend                     | 10.0 | 26.0 | 123.0 | 464.2 | 906.2 | 1,500.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 |



**NSP Maritime Link  
Capital Cost  
CAD Millions**

**AFUDC**

**Start Date** **Oct-17**

|                     | Jan-11 | Feb-11 | Mar-11 | Apr-11 | May-11 | Jun-11 | Jul-11 | Aug-11 | Sep-11 | Oct-11 | Nov-11 | Dec-11 | Jan-12 | Feb-12 | Mar-12 | Apr-12 | May-12 | Jun-12 | Jul-12 | Aug-12 | Sep-12 | Oct-12 | Nov-12 | Dec-12 | Jan-13 | Feb-13 | Mar-13 |     |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|
| Capital Spend       | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 4.5    | 5.4    | 7.4 |
| Cumulative          | 0.8    | 1.7    | 2.5    | 3.3    | 4.2    | 5.0    | 5.8    | 6.7    | 7.5    | 8.3    | 9.2    | 10.0   | 11.3   | 12.7   | 14.0   | 15.3   | 16.7   | 18.0   | 19.3   | 20.7   | 22.0   | 23.3   | 24.7   | 26.0   | 30.5   | 35.9   | 43.3   |     |
| AFUDC               | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.3    | 0.3    |     |
| Annual AFUDC        |        |        |        |        |        |        |        |        |        |        |        | 0.5    |        |        |        |        |        |        |        |        |        |        |        |        | 1.8    |        |        |     |
| Cumulative AFUDC    | -      | -      | -      | -      | -      | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 1.2    | 1.2    | 1.2    | 1.2    | 1.2    | 1.2    | 1.2    | 2.3    | 2.3    | 2.3    |     |
| Total CAPEX & AFUDC | 0.8    | 1.7    | 2.5    | 3.3    | 4.2    | 5.1    | 6.0    | 6.8    | 7.6    | 8.5    | 9.3    | 10.5   | 11.8   | 13.2   | 14.5   | 15.8   | 17.2   | 19.2   | 20.5   | 21.9   | 23.2   | 24.5   | 25.9   | 28.3   | 32.8   | 38.2   | 45.6   |     |

**Equity Charge**

**Start Date** **Oct-17**  
**ROE - During Construction** **9.10%**

|                               | Jan-11 | Feb-11 | Mar-11 | Apr-11 | May-11 | Jun-11 | Jul-11 | Aug-11 | Sep-11 | Oct-11 | Nov-11 | Dec-11 | Jan-12 | Feb-12 | Mar-12 | Apr-12 | May-12 | Jun-12 | Jul-12 | Aug-12 | Sep-12 | Oct-12 | Nov-12 | Dec-12 | Jan-13 | Feb-13 | Mar-13 |     |
|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|
| Equity Contribution           | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 4.5    | 5.4    | 7.4 |
| Cumulative Equity Contributed | 0.8    | 1.7    | 2.5    | 3.3    | 4.2    | 5.0    | 5.8    | 6.7    | 7.5    | 8.3    | 9.2    | 10.0   | 11.3   | 12.7   | 14.0   | 15.3   | 16.7   | 18.0   | 19.3   | 20.7   | 22.0   | 23.3   | 24.7   | 26.0   | 30.5   | 35.9   | 43.3   |     |
| Equity Charge                 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.3    | 0.3    |     |
| Semi-annual Equity Charge     |        |        |        |        |        | 0.1    |        |        |        |        |        | 0.4    |        |        |        |        |        | 0.7    |        |        |        |        |        | 1.1    |        |        |        |     |
| Annual Equity Charge          |        |        |        |        |        |        |        |        |        |        |        | 0.5    |        |        |        |        |        |        |        |        |        |        |        | 1.8    |        |        |        |     |
| Cumulative Equity Charge      | -      | -      | -      | -      | -      | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.1    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 1.2    | 1.2    | 1.2    | 1.2    | 1.2    | 1.2    | 1.2    | 2.3    | 2.3    | 2.3    |     |
| Total Equity + Equity Charge  | 0.8    | 1.7    | 2.5    | 3.3    | 4.2    | 5.1    | 6.0    | 6.8    | 7.6    | 8.5    | 9.3    | 10.5   | 11.8   | 13.2   | 14.5   | 15.8   | 17.2   | 19.2   | 20.5   | 21.9   | 23.2   | 24.5   | 25.9   | 28.3   | 32.8   | 38.2   | 45.6   |     |

**Interest Charge**

**Start Date** **Oct-17**  
**Interest Rate** **4.00%**

|                              | Jan-11 | Feb-11 | Mar-11 | Apr-11 | May-11 | Jun-11 | Jul-11 | Aug-11 | Sep-11 | Oct-11 | Nov-11 | Dec-11 | Jan-12 | Feb-12 | Mar-12 | Apr-12 | May-12 | Jun-12 | Jul-12 | Aug-12 | Sep-12 | Oct-12 | Nov-12 | Dec-12 | Jan-13 | Feb-13 | Mar-13 |   |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|
| Debt Issue                   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | - |
| Cumulative Debt Issued       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | - |
| Interest Charge              | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | - |
| Annual Interest Charge       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |   |
| Cumulative Interest Charge   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | - |
| Total Debt + Interest Charge | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | - |

|                                     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Total Capex + AFUDC</b>          | 0.8  | 1.7  | 2.5  | 3.3  | 4.2  | 5.1  | 6.0  | 6.8  | 7.6  | 8.5  | 9.3  | 10.5 | 11.8 | 13.2 | 14.5 | 15.8 | 17.2 | 19.2 | 20.5 | 21.9 | 23.2 | 24.5 | 25.9 | 28.3 | 32.8 | 38.2 | 45.6 |      |
| <b>Total Equity + Equity Charge</b> | 0.8  | 1.7  | 2.5  | 3.3  | 4.2  | 5.1  | 6.0  | 6.8  | 7.6  | 8.5  | 9.3  | 10.5 | 11.8 | 13.2 | 14.5 | 15.8 | 17.2 | 19.2 | 20.5 | 21.9 | 23.2 | 24.5 | 25.9 | 28.3 | 32.8 | 38.2 | 45.6 |      |
| <b>Total Debt + Interest Charge</b> | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>Delta</b>                        | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>Equity</b>                       | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| <b>Debt</b>                         | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |

| <b>Annual Numbers</b> | 2011 | 2012 | 2013 | 2014 | 2015 | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  |
|-----------------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| Equity Charge         | 0    | 2    | 7    | 13   | 22   | 42    | 40    | -     | -     | -     | -     |
| Interest Charge       | -    | -    | -    | 9    | 21   | 38    | 36    | -     | -     | -     | -     |
| Total Debt            | -    | -    | -    | 346  | 686  | 1,151 | 1,221 | 1,221 | 1,221 | 1,221 | 1,221 |

| <b>Capital Expenditure Summary</b> |              |              |                |
|------------------------------------|--------------|--------------|----------------|
|                                    | CAPEX        | AFUDC        | Total          |
| 2011                               | 10           | 0.5          | 10.5           |
| 2012                               | 16           | 1.8          | 17.8           |
| 2013                               | 97           | 6.7          | 103.7          |
| 2014                               | 341          | 21.8         | 363.0          |
| 2015                               | 442          | 43.0         | 485.0          |
| 2016                               | 594          | 80.2         | 674.2          |
| 2017                               | 14           | 75.7         | 89.7           |
| 2018                               | -            | -            | -              |
| 2019                               | -            | -            | -              |
| 2020                               | -            | -            | -              |
| 2021                               | -            | -            | -              |
| <b>Total Capex</b>                 | <b>1,514</b> | <b>229.6</b> | <b>1,743.9</b> |
| <b>Total Land Value</b>            |              |              | <b>12.2</b>    |
| <b>Depreciable Capital</b>         |              |              | <b>1,731.6</b> |

**NSP Maritime Link  
Capital Cost  
CAD Millions**

**AFUDC**

**Start Date**

|                     | Apr-13 | May-13 | Jun-13 | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 | Mar-14 | Apr-14 | May-14 | Jun-14 | Jul-14 | Aug-14 | Sep-14 | Oct-14 | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Capital Spend       | 7.8    | 4.7    | 5.7    | 4.6    | 14.9   | 6.4    | 9.3    | 13.0   | 13.2   | 133.9  | 9.8    | 9.8    | 11.7   | 15.2   | 22.2   | 19.6   | 22.8   | 25.6   | 26.5   | 21.9   | 22.3   | 23.2   | 28.0   | 36.1   | 33.9   | 39.6   | 72.7   |
| Cumulative          | 51.1   | 55.8   | 61.5   | 66.1   | 81.0   | 87.5   | 96.8   | 109.8  | 123.0  | 256.9  | 266.7  | 276.5  | 288.2  | 303.4  | 325.6  | 345.2  | 368.0  | 393.6  | 420.1  | 441.9  | 464.2  | 487.4  | 515.5  | 551.6  | 585.6  | 625.2  | 697.9  |
| AFUDC               | 0.4    | 0.4    | 0.5    | 0.5    | 0.6    | 0.7    | 0.8    | 0.9    | 1.0    | 1.5    | 1.5    | 1.5    | 1.6    | 1.6    | 1.7    | 1.8    | 1.9    | 2.0    | 2.1    | 2.2    | 2.3    | 2.5    | 2.7    | 2.8    | 3.0    | 3.2    | 3.5    |
| Annual AFUDC        |        |        |        |        |        |        |        |        | 6.7    |        |        |        |        |        |        |        |        |        |        |        | 21.8   |        |        |        |        |        |        |
| Cumulative AFUDC    | 2.3    | 2.3    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 9.0    | 9.4    | 9.9    | 10.4   | 11.0   | 11.6   | 18.5   | 19.2   | 20.0   | 21.0   | 22.0   | 23.1   | 30.7   | 31.9   | 33.2   | 34.6   | 36.0   | 37.6   | 48.5   |
| Total CAPEX & AFUDC | 53.4   | 58.1   | 66.0   | 70.6   | 85.5   | 92.0   | 101.3  | 114.3  | 132.0  | 266.3  | 276.6  | 286.9  | 299.1  | 315.0  | 344.1  | 364.4  | 388.0  | 414.6  | 442.0  | 465.0  | 495.0  | 519.4  | 548.7  | 586.2  | 621.6  | 662.8  | 746.4  |

**Equity Charge**

**Start Date**

**ROE - During Construction**

|  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
|  | 9.10% | 9.10% | 9.10% | 9.10% | 9.10% | 9.10% | 9.10% | 9.10% | 9.10% | 9.40% | 9.40% | 9.40% | 9.40% | 9.40% | 9.40% | 9.40% | 9.40% | 9.40% | 9.40% | 9.40% | 9.40% | 10.08% | 10.08% | 10.08% | 10.08% | 10.08% | 10.08% |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|

|                               | Apr-13 | May-13 | Jun-13 | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 | Mar-14 | Apr-14 | May-14 | Jun-14 | Jul-14 | Aug-14 | Sep-14 | Oct-14 | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 |
|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Equity Contribution           | 7.8    | 4.7    | 5.7    | 4.6    | 14.9   | 6.4    | 9.3    | 13.0   | 13.2   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | 1.3    | 2.5    | 7.3    | 8.8    | 11.3   | 10.6   | 12.3   | 15.9   |
| Cumulative Equity Contributed | 51.1   | 55.8   | 61.5   | 66.1   | 81.0   | 87.5   | 96.8   | 109.8  | 123.0  | 123.0  | 123.0  | 123.0  | 123.0  | 123.0  | 123.0  | 123.0  | 123.0  | 123.0  | 123.0  | 124.3  | 126.8  | 134.1  | 142.9  | 154.2  | 164.8  | 177.1  | 193.0  |
| Equity Charge                 | 0.4    | 0.4    | 0.5    | 0.5    | 0.6    | 0.7    | 0.8    | 0.9    | 1.0    | 1.0    | 1.0    | 1.0    | 1.0    | 1.0    | 1.0    | 1.1    | 1.1    | 1.1    | 1.1    | 1.1    | 1.1    | 1.3    | 1.4    | 1.5    | 1.6    | 1.7    | 1.8    |
| Semi-annual Equity Charge     |        |        | 2.2    |        |        |        |        |        | 4.5    |        |        |        |        |        | 6.2    |        |        |        |        |        | 6.5    |        |        |        |        |        | 9.2    |
| Annual Equity Charge          |        |        |        |        |        |        |        |        | 6.7    |        |        |        |        |        |        |        |        |        |        |        |        | 12.7   |        |        |        |        |        |
| Cumulative Equity Charge      | 2.3    | 2.3    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 9.0    | 9.0    | 9.0    | 9.0    | 9.0    | 9.0    | 15.2   | 15.2   | 15.2   | 15.2   | 15.2   | 15.2   | 21.7   | 21.7   | 21.7   | 21.7   | 21.7   | 21.7   | 30.9   |
| Total Equity + Equity Charge  | 53.4   | 58.1   | 66.0   | 70.6   | 85.5   | 92.0   | 101.3  | 114.3  | 132.0  | 132.0  | 132.0  | 132.0  | 132.0  | 132.0  | 138.2  | 138.2  | 138.2  | 138.2  | 138.2  | 139.5  | 148.5  | 155.8  | 164.6  | 175.9  | 186.5  | 198.8  | 223.9  |

**Interest Charge**

**Start Date**

**Interest Rate**

|  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|  | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

|                              | Apr-13 | May-13 | Jun-13 | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 | Mar-14 | Apr-14 | May-14 | Jun-14 | Jul-14 | Aug-14 | Sep-14 | Oct-14 | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Debt Issue                   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 133.9  | 9.8    | 9.8    | 11.7   | 15.2   | 22.2   | 19.6   | 22.8   | 25.6   | 26.5   | 20.6   | 19.8   | 15.9   | 19.3   | 24.9   | 23.3   | 27.3   | 56.8   |
| Cumulative Debt Issued       | -      | -      | -      | -      | -      | -      | -      | -      | -      | 133.9  | 143.7  | 153.5  | 165.2  | 180.4  | 202.6  | 222.2  | 245.0  | 270.6  | 297.1  | 317.6  | 337.4  | 353.3  | 372.6  | 397.5  | 420.8  | 448.1  | 504.9  |
| Interest Charge              | -      | -      | -      | -      | -      | -      | -      | -      | -      | 0.4    | 0.5    | 0.5    | 0.6    | 0.6    | 0.7    | 0.8    | 0.8    | 0.9    | 1.0    | 1.1    | 1.2    | 1.2    | 1.3    | 1.4    | 1.4    | 1.5    | 1.7    |
| Annual Interest Charge       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 9.0    |        |        |        |        |        |        |
| Cumulative Interest Charge   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 0.4    | 0.9    | 1.4    | 2.0    | 2.6    | 3.3    | 4.0    | 4.9    | 5.8    | 6.8    | 7.9    | 9.0    | 10.2   | 11.5   | 12.9   | 14.3   | 15.9   | 17.6   |
| Total Debt + Interest Charge | -      | -      | -      | -      | -      | -      | -      | -      | -      | 134.3  | 144.6  | 154.9  | 167.2  | 183.0  | 205.9  | 226.2  | 249.9  | 276.4  | 303.9  | 325.5  | 346.5  | 363.6  | 384.1  | 410.4  | 435.1  | 463.9  | 522.5  |

|                                     |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-------------------------------------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Total Capex + AFUDC</b>          | 53.4 | 58.1 | 66.0 | 70.6 | 85.5 | 92.0 | 101.3 | 114.3 | 132.0 | 266.3 | 276.6 | 286.9 | 299.1 | 315.0 | 344.1 | 364.4 | 388.0 | 414.6 | 442.0 | 465.0 | 495.0 | 519.4 | 548.7 | 586.2 | 621.6 | 662.8 | 746.4 |
| <b>Total Equity + Equity Charge</b> | 53.4 | 58.1 | 66.0 | 70.6 | 85.5 | 92.0 | 101.3 | 114.3 | 132.0 | 132.0 | 132.0 | 132.0 | 132.0 | 132.0 | 138.2 | 138.2 | 138.2 | 138.2 | 138.2 | 139.5 | 148.5 | 155.8 | 164.6 | 175.9 | 186.5 | 198.8 | 223.9 |
| <b>Total Debt + Interest Charge</b> | -    | -    | -    | -    | -    | -    | -     | -     | -     | 134.3 | 144.6 | 154.9 | 167.2 | 183.0 | 205.9 | 226.2 | 249.9 | 276.4 | 303.9 | 325.5 | 346.5 | 363.6 | 384.1 | 410.4 | 435.1 | 463.9 | 522.5 |
| <b>Delta</b>                        | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| <b>Equity</b>                       | 100% | 100% | 100% | 100% | 100% | 100% | 100%  | 100%  | 100%  | 50%   | 48%   | 46%   | 44%   | 42%   | 40%   | 38%   | 36%   | 33%   | 31%   | 30%   | 30%   | 30%   | 30%   | 30%   | 30%   | 30%   | 30%   |
| <b>Debt</b>                         | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%    | 0%    | 0%    | 50%   | 52%   | 54%   | 56%   | 58%   | 60%   | 62%   | 64%   | 67%   | 69%   | 70%   | 70%   | 70%   | 70%   | 70%   | 70%   | 70%   | 70%   |

**Annual Numbers**

Equity Charge  
Interest Charge

Total Debt

**NSP Maritime Link  
Capital Cost  
CAD Millions**

**AFUDC**

**Start Date**

|                     | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Dec-15 | Jan-16  | Feb-16  | Mar-16  | Apr-16  | May-16  | Jun-16  | Jul-16  | Aug-16  | Sep-16  | Oct-16  | Nov-16  | Dec-16  | Jan-17  | Feb-17  | Mar-17  | Apr-17  | May-17  | Jun-17  | Jul-17  | Aug-17  | Sep-17  |     |
|---------------------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----|
| Capital Spend       | 35.1   | 30.2   | 29.2   | 34.7   | 24.3   | 55.0   | 21.9    | 38.4    | 38.7    | 76.2    | 86.2    | 102.3   | 59.1    | 59.2    | 43.0    | 20.8    | 19.3    | 28.8    | 1.6     | 1.6     | 1.6     | 1.6     | 1.6     | 1.6     | 1.6     | 1.6     | 1.6     | 1.6 |
| Cumulative          | 732.9  | 763.1  | 792.3  | 827.0  | 851.2  | 906.2  | 928.1   | 966.5   | 1,005.2 | 1,081.4 | 1,167.7 | 1,269.9 | 1,329.0 | 1,388.2 | 1,431.3 | 1,452.1 | 1,471.4 | 1,500.2 | 1,501.8 | 1,503.3 | 1,504.9 | 1,506.5 | 1,508.0 | 1,509.6 | 1,511.1 | 1,512.7 | 1,514.2 |     |
| AFUDC               | 3.8    | 4.0    | 4.1    | 4.3    | 4.4    | 4.6    | 5.0     | 5.2     | 5.4     | 5.8     | 6.2     | 6.7     | 7.1     | 7.5     | 7.7     | 7.8     | 7.9     | 8.0     | 8.3     | 8.3     | 8.4     | 8.4     | 8.3     | 8.3     | 8.6     | 8.6     | 8.6     |     |
| Annual AFUDC        |        |        |        |        |        | 43.0   |         |         |         |         |         |         |         |         |         |         |         | 80.2    |         |         |         |         |         |         |         |         |         |     |
| Cumulative AFUDC    | 50.3   | 52.2   | 54.2   | 56.3   | 58.4   | 73.7   | 76.0    | 78.5    | 81.0    | 83.7    | 86.6    | 107.9   | 111.3   | 114.7   | 118.4   | 122.0   | 125.7   | 153.9   | 157.8   | 161.6   | 165.5   | 169.4   | 173.4   | 203.9   | 207.9   | 212.0   | 216.0   |     |
| Total CAPEX & AFUDC | 783.3  | 815.3  | 846.5  | 883.2  | 909.6  | 979.9  | 1,004.1 | 1,045.0 | 1,086.2 | 1,165.1 | 1,254.3 | 1,377.8 | 1,440.3 | 1,503.0 | 1,549.6 | 1,574.1 | 1,597.1 | 1,654.2 | 1,659.6 | 1,665.0 | 1,670.4 | 1,675.9 | 1,681.4 | 1,713.5 | 1,719.0 | 1,724.6 | 1,730.2 |     |

**Equity Charge**

**Start Date**

**ROE - During Construction**

|  |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|  | <b>10.08%</b> | <b>10.08%</b> | <b>10.08%</b> | <b>10.08%</b> | <b>10.08%</b> | <b>10.08%</b> | <b>10.53%</b> | <b>10.53%</b> | <b>10.53%</b> | <b>10.53%</b> | <b>10.53%</b> | <b>10.53%</b> | <b>10.53%</b> | <b>10.53%</b> | <b>10.53%</b> | <b>10.53%</b> | <b>10.53%</b> | <b>10.53%</b> | <b>10.68%</b> | <b>10.68%</b> | <b>10.68%</b> | <b>10.68%</b> | <b>10.68%</b> | <b>10.68%</b> | <b>10.68%</b> | <b>10.68%</b> | <b>10.68%</b> |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|

|                               | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Dec-15 | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 | Jul-16 | Aug-16 | Sep-16 | Oct-16 | Nov-16 | Dec-16 | Jan-17 | Feb-17 | Mar-17 | Apr-17 | May-17 | Jun-17 | Jul-17 | Aug-17 | Sep-17 |
|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Equity Contribution           | 11.1   | 9.6    | 9.3    | 11.0   | 7.9    | 8.1    | 7.3    | 12.2   | 12.4   | 23.7   | 26.7   | 19.0   | 18.7   | 18.8   | 14.0   | 7.3    | 6.9    | -      | -      | -      | -      | -      | 20.5   | -      | -      | -      | -      |
| Cumulative Equity Contributed | 204.1  | 213.7  | 223.0  | 234.1  | 242.0  | 250.0  | 257.3  | 269.5  | 281.9  | 305.6  | 332.3  | 351.3  | 370.0  | 388.8  | 402.8  | 410.2  | 417.1  | 417.1  | 417.1  | 417.1  | 417.1  | 417.1  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  |
| Equity Charge                 | 2.0    | 2.1    | 2.1    | 2.2    | 2.3    | 2.4    | 2.6    | 2.8    | 2.9    | 3.1    | 3.3    | 3.5    | 3.8    | 4.0    | 4.1    | 4.1    | 4.2    | 4.2    | 4.5    | 4.5    | 4.5    | 4.5    | 4.3    | 4.3    | 4.5    | 4.5    | 4.5    |
| Semi-annual Equity Charge     |        |        |        |        |        | 13.0   |        |        |        |        |        | 18.1   |        |        |        |        |        | 24.4   |        |        |        |        | 26.5   |        |        |        |        |
| Annual Equity Charge          |        |        |        |        |        | 22.2   |        |        |        |        |        |        |        |        |        |        |        | 42.5   |        |        |        |        |        |        |        |        |        |
| Cumulative Equity Charge      | 30.9   | 30.9   | 30.9   | 30.9   | 30.9   | 44.0   | 44.0   | 44.0   | 44.0   | 44.0   | 44.0   | 62.0   | 62.0   | 62.0   | 62.0   | 62.0   | 62.0   | 86.4   | 86.4   | 86.4   | 86.4   | 86.4   | 86.4   | 113.0  | 113.0  | 113.0  | 113.0  |
| Total Equity + Equity Charge  | 235.0  | 244.6  | 254.0  | 265.0  | 272.9  | 294.0  | 301.2  | 313.5  | 325.9  | 349.5  | 376.3  | 413.3  | 432.1  | 450.9  | 464.9  | 472.2  | 479.1  | 503.5  | 503.5  | 503.5  | 503.5  | 503.5  | 483.0  | 509.5  | 509.5  | 509.5  | 509.5  |

**Interest Charge**

**Start Date**

**Interest Rate**

|  |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|  | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> | <b>4.00%</b> |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|

|                              | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Dec-15 | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 | Jul-16  | Aug-16  | Sep-16  | Oct-16  | Nov-16  | Dec-16  | Jan-17  | Feb-17  | Mar-17  | Apr-17  | May-17  | Jun-17  | Jul-17  | Aug-17  | Sep-17  |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Debt Issue                   | 24.0   | 20.5   | 19.8   | 23.7   | 16.3   | 46.9   | 14.6   | 26.1   | 26.3   | 52.5   | 59.5   | 83.3   | 40.4    | 40.4    | 29.0    | 13.5    | 12.4    | 28.8    | 1.6     | 1.6     | 1.6     | 1.6     | 22.0    | 1.6     | 1.6     | 1.6     | 1.6     |
| Cumulative Debt Issued       | 528.9  | 549.4  | 569.3  | 592.9  | 609.3  | 656.2  | 670.8  | 697.0  | 723.3  | 775.8  | 835.3  | 918.6  | 959.0   | 999.4   | 1,028.4 | 1,041.9 | 1,054.3 | 1,083.1 | 1,084.7 | 1,086.3 | 1,087.8 | 1,089.4 | 1,111.4 | 1,113.0 | 1,114.5 | 1,116.1 | 1,117.6 |
| Interest Charge              | 1.8    | 1.9    | 2.0    | 2.1    | 2.1    | 2.3    | 2.3    | 2.4    | 2.5    | 2.7    | 2.9    | 3.2    | 3.3     | 3.5     | 3.6     | 3.7     | 3.7     | 3.8     | 3.8     | 3.9     | 3.9     | 3.9     | 4.0     | 4.0     | 4.0     | 4.0     | 4.1     |
| Annual Interest Charge       |        |        |        |        |        | 20.7   |        |        |        |        |        |        |         |         |         |         |         | 37.8    |         |         |         |         |         |         |         |         |         |
| Cumulative Interest Charge   | 19.4   | 21.3   | 23.3   | 25.3   | 27.5   | 29.7   | 32.1   | 34.5   | 37.0   | 39.7   | 42.7   | 45.9   | 49.2    | 52.7    | 56.3    | 60.0    | 63.7    | 67.5    | 71.3    | 75.2    | 79.1    | 83.0    | 87.0    | 91.0    | 95.0    | 99.0    | 103.1   |
| Total Debt + Interest Charge | 548.3  | 570.7  | 592.6  | 618.3  | 636.7  | 685.9  | 702.9  | 731.5  | 760.3  | 815.6  | 878.0  | 964.5  | 1,008.2 | 1,052.1 | 1,084.7 | 1,101.9 | 1,118.0 | 1,150.6 | 1,156.0 | 1,161.5 | 1,166.9 | 1,172.3 | 1,198.4 | 1,203.9 | 1,209.5 | 1,215.1 | 1,220.7 |

|                                     |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|-------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Total Capex + AFUDC</b>          | 783.3      | 815.3      | 846.5      | 883.2      | 909.6      | 979.9      | 1,004.1    | 1,045.0    | 1,086.2    | 1,165.1    | 1,254.3    | 1,377.8    | 1,440.3    | 1,503.0    | 1,549.6    | 1,574.1    | 1,597.1    | 1,654.2    | 1,659.6    | 1,665.0    | 1,670.4    | 1,675.9    | 1,681.4    | 1,713.5    | 1,719.0    | 1,724.6    | 1,730.2    |
| <b>Total Equity + Equity Charge</b> | 235.0      | 244.6      | 254.0      | 265.0      | 272.9      | 294.0      | 301.2      | 313.5      | 325.9      | 349.5      | 376.3      | 413.3      | 432.1      | 450.9      | 464.9      | 472.2      | 479.1      | 503.5      | 503.5      | 503.5      | 503.5      | 503.5      | 483.0      | 509.5      | 509.5      | 509.5      | 509.5      |
| <b>Total Debt + Interest Charge</b> | 548.3      | 570.7      | 592.6      | 618.3      | 636.7      | 685.9      | 702.9      | 731.5      | 760.3      | 815.6      | 878.0      | 964.5      | 1,008.2    | 1,052.1    | 1,084.7    | 1,101.9    | 1,118.0    | 1,150.6    | 1,156.0    | 1,161.5    | 1,166.9    | 1,172.3    | 1,198.4    | 1,203.9    | 1,209.5    | 1,215.1    | 1,220.7    |
| <b>Delta</b>                        | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| <b>Equity</b>                       | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>29%</b> | <b>30%</b> | <b>30%</b> | <b>30%</b> | <b>29%</b> |
| <b>Debt</b>                         | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>71%</b> | <b>70%</b> | <b>70%</b> | <b>70%</b> | <b>71%</b> |

**Annual Numbers**

Equity Charge  
Interest Charge

Total Debt

**NSP Maritime Link  
Capital Cost  
CAD Millions**

**AFUDC**

**Start Date**

|                     | Oct-17  | Nov-17  | Dec-17  | Jan-18  | Feb-18  | Mar-18  | Apr-18  | May-18  | Jun-18  | Jul-18  | Aug-18  | Sep-18  | Oct-18  | Nov-18  | Dec-18  | Jan-19  | Feb-19  | Mar-19  | Apr-19  | May-19  | Jun-19  | Jul-19  | Aug-19  | Sep-19  | Oct-19  | Nov-19  | Dec-19  |         |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Capital Spend       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Cumulative          | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 |
| AFUDC               | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Annual AFUDC        | -       | -       | 75.7    | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Cumulative AFUDC    | 216.0   | 216.0   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   |
| Total CAPEX & AFUDC | 1,730.2 | 1,730.2 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 |

**Equity Charge**

**Start Date**

**ROE - During Construction**

|  |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|  | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

|                               | Oct-17 | Nov-17 | Dec-17 | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 | Jul-18 | Aug-18 | Sep-18 | Oct-18 | Nov-18 | Dec-18 | Jan-19 | Feb-19 | Mar-19 | Apr-19 | May-19 | Jun-19 | Jul-19 | Aug-19 | Sep-19 | Oct-19 | Nov-19 | Dec-19 |       |
|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Equity Contribution           | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -     |
| Cumulative Equity Contributed | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6 |
| Equity Charge                 | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -     |
| Semi-annual Equity Charge     | -      | -      | 13.6   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -     |
| Annual Equity Charge          | -      | -      | 40.1   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -     |
| Cumulative Equity Charge      | 113.0  | 113.0  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6 |
| Total Equity + Equity Charge  | 509.5  | 509.5  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2 |

**Interest Charge**

**Start Date**

**Interest Rate**

|  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|  | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

|                              | Oct-17  | Nov-17  | Dec-17  | Jan-18  | Feb-18  | Mar-18  | Apr-18  | May-18  | Jun-18  | Jul-18  | Aug-18  | Sep-18  | Oct-18  | Nov-18  | Dec-18  | Jan-19  | Feb-19  | Mar-19  | Apr-19  | May-19  | Jun-19  | Jul-19  | Aug-19  | Sep-19  | Oct-19  | Nov-19  | Dec-19  |         |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Debt Issue                   | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Cumulative Debt Issued       | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 |
| Interest Charge              | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Annual Interest Charge       | -       | -       | 35.6    | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Cumulative Interest Charge   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   |
| Total Debt + Interest Charge | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 |

|                                     |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|-------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Total Capex + AFUDC</b>          | 1,730.2 | 1,730.2 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 |
| <b>Total Equity + Equity Charge</b> | 509.5   | 509.5   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   |
| <b>Total Debt + Interest Charge</b> | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 |
| <b>Delta</b>                        | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| <b>Equity</b>                       | 29%     | 29%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     |
| <b>Debt</b>                         | 71%     | 71%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     |

**Annual Numbers**

Equity Charge  
Interest Charge

Total Debt

**NSP Maritime Link  
Capital Cost  
CAD Millions**

**AFUDC**

**Start Date**

|                     | Jan-20  | Feb-20  | Mar-20  | Apr-20  | May-20  | Jun-20  | Jul-20  | Aug-20  | Sep-20  | Oct-20  | Nov-20  | Dec-20  | Jan-21  | Feb-21  | Mar-21  | Apr-21  | May-21  | Jun-21  | Jul-21  | Aug-21  | Sep-21  | Oct-21  | Nov-21  | Dec-21  |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Capital Spend       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Cumulative          | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 | 1,514.2 |
| AFUDC               | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Annual AFUDC        | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Cumulative AFUDC    | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   | 229.6   |
| Total CAPEX & AFUDC | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 |

**Equity Charge**

**Start Date**

**ROE - During Construction**

|  |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|  | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% | 10.68% |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

|                               | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 | Jul-20 | Aug-20 | Sep-20 | Oct-20 | Nov-20 | Dec-20 | Jan-21 | Feb-21 | Mar-21 | Apr-21 | May-21 | Jun-21 | Jul-21 | Aug-21 | Sep-21 | Oct-21 | Nov-21 | Dec-21 |
|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Equity Contribution           | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Cumulative Equity Contributed | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  | 396.6  |
| Equity Charge                 | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Semi-annual Equity Charge     | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Annual Equity Charge          | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Cumulative Equity Charge      | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  | 126.6  |
| Total Equity + Equity Charge  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  | 523.2  |

**Interest Charge**

**Start Date**

**Interest Rate**

|  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|  | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

|                              | Jan-20  | Feb-20  | Mar-20  | Apr-20  | May-20  | Jun-20  | Jul-20  | Aug-20  | Sep-20  | Oct-20  | Nov-20  | Dec-20  | Jan-21  | Feb-21  | Mar-21  | Apr-21  | May-21  | Jun-21  | Jul-21  | Aug-21  | Sep-21  | Oct-21  | Nov-21  | Dec-21  |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Debt Issue                   | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Cumulative Debt Issued       | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 | 1,117.6 |
| Interest Charge              | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Annual Interest Charge       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Cumulative Interest Charge   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   | 103.1   |
| Total Debt + Interest Charge | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 |

|                                     |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|-------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Total Capex + AFUDC</b>          | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 | 1,743.9 |
| <b>Total Equity + Equity Charge</b> | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   | 523.2   |
| <b>Total Debt + Interest Charge</b> | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 | 1,220.7 |
| <b>Delta</b>                        | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| <b>Equity</b>                       | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     | 30%     |
| <b>Debt</b>                         | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     | 70%     |

**Annual Numbers**

Equity Charge  
Interest Charge

Total Debt









|                     |
|---------------------|
| Amortization Period |
| 35                  |

|  | <i>20</i> | <i>21</i> | <i>22</i> | <i>23</i> | <i>24</i> | <i>25</i> | <i>26</i> | <i>27</i> | <i>28</i> | <i>29</i> | <i>30</i> | <i>31</i> | <i>32</i> | <i>33</i> | <i>34</i> | <i>35</i> | <i>36</i> |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|  | 2037      | 2038      | 2039      | 2040      | 2041      | 2042      | 2043      | 2044      | 2045      | 2046      | 2047      | 2048      | 2049      | 2050      | 2051      | 2052      | 2052      |
|  | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
|  | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
|  | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
|  | 26.48     | 24.82     | 23.17     | 21.51     | 19.86     | 18.20     | 16.55     | 14.89     | 13.24     | 11.58     | 9.93      | 8.27      | 6.62      | 4.96      | 3.31      | 1.65      | 0.00      |
|  | 1.65      | 1.65      | 1.65      | 1.65      | 1.65      | 1.65      | 1.65      | 1.65      | 1.65      | 1.65      | 1.65      | 1.65      | 1.65      | 1.65      | 1.65      | 1.65      | -         |
|  | 24.82     | 23.17     | 21.51     | 19.86     | 18.20     | 16.55     | 14.89     | 13.24     | 11.58     | 9.93      | 8.27      | 6.62      | 4.96      | 3.31      | 1.65      | 0.00      | 0.00      |
|  | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
|  | 18.53     | 17.38     | 16.22     | 15.06     | 13.90     | 12.74     | 11.58     | 10.43     | 9.27      | 8.11      | 6.95      | 5.79      | 4.63      | 3.48      | 2.32      | 1.16      | 0.00      |
|  | 1.16      | 1.16      | 1.16      | 1.16      | 1.16      | 1.16      | 1.16      | 1.16      | 1.16      | 1.16      | 1.16      | 1.16      | 1.16      | 1.16      | 1.16      | 1.16      | -         |
|  | 17.38     | 16.22     | 15.06     | 13.90     | 12.74     | 11.58     | 10.43     | 9.27      | 8.11      | 6.95      | 5.79      | 4.63      | 3.48      | 2.32      | 1.16      | 0.00      | 0.00      |
|  | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
|  | 7.94      | 7.45      | 6.95      | 6.45      | 5.96      | 5.46      | 4.96      | 4.47      | 3.97      | 3.48      | 2.98      | 2.48      | 1.99      | 1.49      | 0.99      | 0.50      | 0.00      |
|  | 0.50      | 0.50      | 0.50      | 0.50      | 0.50      | 0.50      | 0.50      | 0.50      | 0.50      | 0.50      | 0.50      | 0.50      | 0.50      | 0.50      | 0.50      | 0.50      | -         |
|  | 7.45      | 6.95      | 6.45      | 5.96      | 5.46      | 4.96      | 4.47      | 3.97      | 3.48      | 2.98      | 2.48      | 1.99      | 1.49      | 0.99      | 0.50      | 0.00      | 0.00      |





|   |                            | Construct | Construct | Construct | Construct | Construct | Construct | 1    | 2     | 3     | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   |  |  |
|---|----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|
|   |                            | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017 | 2018  | 2019  | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |  |  |
| CCA Schedule                                  | 10%                        | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Opening Balance            | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Additions                  | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Disposals                  | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | CCA                        | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Ending Balance             | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
| CCA Schedule                                  | 20%                        | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Opening Balance            | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Additions                  | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Disposals                  | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | CCA                        | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Ending Balance             | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
| CCA Schedule                                  | 12%                        | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Opening Balance            | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Additions                  | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Disposals                  | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | CCA                        | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Ending Balance             | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
| CCA Schedule                                  | 7% EASEMENTS (ECE)         | -         | -         | -         | -         | -         | -         | 94.7 | 91.4  | 85.0  | 79.0 | 73.5 | 68.3 | 63.6 | 59.1 | 55.0 | 51.1 | 47.5 | 44.2 | 41.1 | 38.2 | 35.6 | 33.1 | 30.8 | 28.6 |  |  |
|   | Opening Balance            | -         | -         | -         | -         | -         | -         | -    | 91.4  | 85.0  | 79.0 | 73.5 | 68.3 | 63.6 | 59.1 | 55.0 | 51.1 | 47.5 | 44.2 | 41.1 | 38.2 | 35.6 | 33.1 | 30.8 | 28.6 |  |  |
|   | Additions                  | -         | -         | -         | -         | -         | -         | 94.7 | -     | -     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |  |  |
|   | Disposals                  | -         | -         | -         | -         | -         | -         | -    | -     | -     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |  |  |
|   | CCA                        | -         | -         | -         | -         | -         | -         | 3.3  | 6.4   | 5.9   | 5.5  | 5.1  | 4.8  | 4.4  | 4.1  | 3.8  | 3.6  | 3.3  | 3.1  | 2.9  | 2.7  | 2.5  | 2.3  | 2.2  | 2.0  |  |  |
|   | Ending Balance             | -         | -         | -         | -         | -         | -         | 91.4 | 85.0  | 79.0  | 73.5 | 68.3 | 63.6 | 59.1 | 55.0 | 51.1 | 47.5 | 44.2 | 41.1 | 38.2 | 35.6 | 33.1 | 30.8 | 28.6 | 26.6 |  |  |
| <b>CCA Schedule for O&amp;M True-up (ECE)</b> |                            |           |           |           |           |           |           |      |       |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |
| CCA Schedule                                  | 7% ECE (O&M True-up)       | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Opening Balance            | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Additions                  | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Disposals                  | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | CCA                        | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | Ending Balance             | 0         | 0         | 0         | 0         | 0         | 0         | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |  |  |
|   | O&M True-up Payment (100%) | -         | -         | -         | -         | -         | -         | -    | -     | -     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |  |  |
| <b>Total CCA</b>                              |                            | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 58.3 | 112.1 | 103.2 | 95.0 | 87.4 | 80.5 | 74.1 | 68.2 | 62.8 | 57.8 | 53.2 | 49.0 | 45.1 | 41.5 | 38.2 | 35.2 | 32.4 | 29.8 |  |  |

| CCA Schedule                                  |                 | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   | 33   | 34   | 35   | 36   |
|---|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|   |                 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 |
| 10%   | Opening Balance | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
|   | Additions       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
|   | Disposals       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|   | CCA             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
|   | Ending Balance  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| 20%   | Opening Balance | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
|   | Additions       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
|   | Disposals       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|   | CCA             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
|   | Ending Balance  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| 12%   | Opening Balance | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
|   | Additions       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
|   | Disposals       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|   | CCA             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
|   | Ending Balance  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| 7% EASEMENTS (ECE)                            | Opening Balance | 26.6 | 24.7 | 23.0 | 21.4 | 19.9 | 18.5 | 17.2 | 16.0 | 14.9 | 13.8 | 12.9 | 12.0 | 11.1 | 10.4 | 9.6  | 9.0  | 8.3  | 7.7  |
|   | Additions       | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | Disposals       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|   | CCA             | 1.9  | 1.7  | 1.6  | 1.5  | 1.4  | 1.3  | 1.2  | 1.1  | 1.0  | 1.0  | 0.9  | 0.8  | 0.8  | 0.7  | 0.7  | 0.6  | 0.6  | 7.7  |
|   | Ending Balance  | 24.7 | 23.0 | 21.4 | 19.9 | 18.5 | 17.2 | 16.0 | 14.9 | 13.8 | 12.9 | 12.0 | 11.1 | 10.4 | 9.6  | 9.0  | 8.3  | 7.7  | -    |
| <b>CCA Schedule for O&amp;M True-up (ECE)</b> |                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 7% ECE (O&M True-up)                          | Opening Balance | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
|   | Additions       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
|   | Disposals       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|   | CCA             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
|   | Ending Balance  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| O&M True-up Payment (100%)                    |                 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>Total CCA</b>                              |                 | 27.5 | 25.3 | 23.3 | 21.4 | 19.7 | 18.2 | 16.7 | 15.4 | 14.2 | 13.1 | 12.0 | 11.1 | 10.2 | 9.4  | 8.6  | 8.0  | 7.3  | 85.3 |

**NSP Maritime Link****Debt Schedule**

CAD Millions

|                              | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <b>9</b> | <b>10</b> | <b>11</b> |
|------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|
|                              | 2017     | 2018     | 2019     | 2020     | 2021     | 2022     | 2023     | 2024     | 2025     | 2026      | 2027      |
| Opening Balance              | 1,150.6  | 1,173.6  | 1,146.5  | 1,112.8  | 1,079.2  | 1,045.5  | 1,011.9  | 978.3    | 944.6    | 911.1     | 878.0     |
| Annual Repayment (borrowing) | (23.0)   | 27.2     | 33.7     | 33.6     | 33.7     | 33.6     | 33.6     | 33.6     | 33.5     | 33.0      | 33.5      |
| Interest                     | 47.3     | 46.4     | 45.2     | 43.8     | 42.5     | 41.1     | 39.8     | 38.5     | 37.1     | 35.8      | 34.5      |
| Balance End of Year          | 1,173.6  | 1,146.5  | 1,112.8  | 1,079.2  | 1,045.5  | 1,011.9  | 978.3    | 944.6    | 911.1    | 878.0     | 844.6     |

**Debt Normalization\***

|  |      |     |     |     |     |     |     |     |     |     |     |
|--|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|  | 40.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|--|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

*\*We assume the O&M True-up payment is at the end of the first year of operations.*

*The debt balance needs to be adjusted to account for this payment or else interest expense will be understated (calculated on a lower debt balance)*

**Debt Service Coverage Ratio**

|                    | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|
| Revenue            | 40   | 160  | 165  | 155  | 160  | 150  | 148  | 145  | 145  | 163  | 154  |
| Operating Expenses | (2)  | (13) | (20) | (13) | (21) | (14) | (14) | (15) | (15) | (25) | (17) |
| Pre-debt cash flow | 38   | 147  | 145  | 142  | 139  | 136  | 133  | 130  | 129  | 138  | 137  |
| Debt Service       |      |      |      |      |      |      |      |      |      |      |      |
| Interest           | (12) | (46) | (45) | (44) | (42) | (41) | (40) | (38) | (37) | (36) | (34) |
| Principal          | (7)  | (27) | (34) | (34) | (34) | (34) | (34) | (34) | (34) | (33) | (33) |
| Total              | (18) | (74) | (79) | (77) | (76) | (75) | (73) | (72) | (71) | (69) | (68) |
| DSCR               | 2.1  | 2.0  | 1.8  | 1.8  | 1.8  | 1.8  | 1.8  | 1.8  | 1.8  | 2.0  | 2.0  |

**Minimum (Year 1 - 35) 1.8**

**Maximum (Year 1 - 35) 2.1**

**Average (Year 1 - 35) 2.0**

**NSP Maritime Link****Debt Schedule**

CAD Millions

|                              | <b>12</b><br>2028 | <b>13</b><br>2029 | <b>14</b><br>2030 | <b>15</b><br>2031 | <b>16</b><br>2032 | <b>17</b><br>2033 | <b>18</b><br>2034 | <b>19</b><br>2035 | <b>20</b><br>2036 | <b>21</b><br>2037 | <b>22</b><br>2038 |
|------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Opening Balance              | 844.6             | 811.0             | 777.4             | 743.8             | 710.1             | 676.6             | 643.0             | 609.4             | 575.8             | 542.0             | 508.5             |
| Annual Repayment (borrowing) | 33.6              | 33.6              | 33.6              | 33.7              | 33.5              | 33.6              | 33.6              | 33.6              | 33.7              | 33.5              | 33.6              |
| Interest                     | 33.1              | 31.8              | 30.4              | 29.1              | 27.7              | 26.4              | 25.0              | 23.7              | 22.4              | 21.0              | 19.7              |
| Balance End of Year          | 811.0             | 777.4             | 743.8             | 710.1             | 676.6             | 643.0             | 609.4             | 575.8             | 542.0             | 508.5             | 474.9             |

|                            |     |     |     |     |     |     |     |     |     |     |     |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>Debt Normalization*</b> | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

| <b>Debt Service Coverage Ratio</b> | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 |
|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Revenue                            | 153  | 152  | 150  | 158  | 147  | 145  | 143  | 141  | 150  | 137  | 135  |
| Operating Expenses                 | (18) | (18) | (19) | (29) | (20) | (20) | (21) | (21) | (32) | (22) | (23) |
| Pre-debt cash flow                 | 135  | 133  | 132  | 129  | 127  | 125  | 122  | 120  | 117  | 115  | 112  |
| Debt Service                       |      |      |      |      |      |      |      |      |      |      |      |
| Interest                           | (33) | (32) | (30) | (29) | (28) | (26) | (25) | (24) | (22) | (21) | (20) |
| Principal                          | (34) | (34) | (34) | (34) | (34) | (34) | (34) | (34) | (34) | (34) | (34) |
| Total                              | (67) | (65) | (64) | (63) | (61) | (60) | (59) | (57) | (56) | (55) | (53) |
| DSCR                               | 2.0  | 2.0  | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  |

|                              |            |
|------------------------------|------------|
| <b>Minimum (Year 1 - 35)</b> | <b>1.8</b> |
| <b>Maximum (Year 1 - 35)</b> | <b>2.1</b> |
| <b>Average (Year 1 - 35)</b> | <b>2.0</b> |

**NSP Maritime Link****Debt Schedule**

CAD Millions

|                              | <b>23</b> | <b>24</b> | <b>25</b> | <b>26</b> | <b>27</b> | <b>28</b> | <b>29</b> | <b>30</b> | <b>31</b> | <b>32</b> | <b>33</b> |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                              | 2039      | 2040      | 2041      | 2042      | 2043      | 2044      | 2045      | 2046      | 2047      | 2048      | 2049      |
| Opening Balance              | 474.9     | 441.2     | 407.6     | 373.8     | 340.3     | 306.6     | 272.9     | 239.3     | 205.5     | 172.0     | 138.3     |
| Annual Repayment (borrowing) | 33.6      | 33.6      | 33.8      | 33.5      | 33.7      | 33.7      | 33.7      | 33.8      | 33.5      | 33.7      | 33.7      |
| Interest                     | 18.3      | 17.0      | 15.6      | 14.3      | 12.9      | 11.6      | 10.2      | 8.9       | 7.5       | 6.2       | 4.9       |
| Balance End of Year          | 441.2     | 407.6     | 373.8     | 340.3     | 306.6     | 272.9     | 239.3     | 205.5     | 172.0     | 138.3     | 104.6     |

|                            |     |     |     |     |     |     |     |     |     |     |     |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>Debt Normalization*</b> | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

| <b>Debt Service Coverage Ratio</b> | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 |
|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Revenue                            | 133  | 130  | 140  | 126  | 123  | 121  | 118  | 129  | 113  | 111  | 108  |
| Operating Expenses                 | (23) | (24) | (37) | (25) | (26) | (27) | (27) | (41) | (29) | (29) | (30) |
| Pre-debt cash flow                 | 109  | 106  | 103  | 100  | 97   | 94   | 91   | 88   | 85   | 82   | 78   |
| Debt Service                       |      |      |      |      |      |      |      |      |      |      |      |
| Interest                           | (18) | (17) | (16) | (14) | (13) | (12) | (10) | (9)  | (8)  | (6)  | (5)  |
| Principal                          | (34) | (34) | (34) | (34) | (34) | (34) | (34) | (34) | (34) | (34) | (34) |
| Total                              | (52) | (51) | (49) | (48) | (47) | (45) | (44) | (43) | (41) | (40) | (39) |
| DSCR                               | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  | 2.0  | 2.0  |

**Minimum (Year 1 - 35) 1.8****Maximum (Year 1 - 35) 2.1****Average (Year 1 - 35) 2.0**



**NSP Maritime Link****Debt Schedule**

CAD Millions

|                              | <b>34</b><br>2050 | <b>35</b><br>2051 | <b>36</b><br>2052 |
|------------------------------|-------------------|-------------------|-------------------|
| Opening Balance              | 104.6             | 71.0              | 36.9              |
| Annual Repayment (borrowing) | 33.7              | 34.0              | 36.9              |
| Interest                     | 3.5               | 2.2               | 0.7               |
| Balance End of Year          | <u>71.0</u>       | <u>36.9</u>       | <u>(0.0)</u>      |

|                            |     |     |     |
|----------------------------|-----|-----|-----|
| <b>Debt Normalization*</b> | 0.0 | 0.0 | 0.0 |
|----------------------------|-----|-----|-----|

**Debt Service Coverage Ratio**

|                    | 2050 | 2051 |
|--------------------|------|------|
| Revenue            | 106  | 119  |
| Operating Expenses | (31) | (47) |
| Pre-debt cash flow | 75   | 72   |
| Debt Service       |      |      |
| Interest           | (4)  | (2)  |
| Principal          | (34) | (34) |
| Total              | (37) | (36) |
| DSCR               | 2.0  | 2.0  |

|                              |            |
|------------------------------|------------|
| <b>Minimum (Year 1 - 35)</b> | <b>1.8</b> |
|------------------------------|------------|

|                              |            |
|------------------------------|------------|
| <b>Maximum (Year 1 - 35)</b> | <b>2.1</b> |
|------------------------------|------------|

|                              |            |
|------------------------------|------------|
| <b>Average (Year 1 - 35)</b> | <b>2.0</b> |
|------------------------------|------------|







**NSP Maritime Link  
Depreciation Schedule  
CAD Millions**

|                           |    | <b>35</b>    | <b>36</b>    |
|---------------------------|----|--------------|--------------|
|                           |    | 2051         | 2052         |
| <b>Initial Investment</b> |    |              |              |
| Item # 1                  | \$ | -            |              |
| Item # 2                  | \$ | -            |              |
| Item # 3                  | \$ | -            |              |
| Item # 4                  | \$ | -            |              |
| Item # 5                  | \$ | -            |              |
| Item # 6                  | \$ | -            |              |
| <b>Additions</b>          |    |              |              |
| NSP Maritime Link         |    | -            | -            |
| <b>Total</b>              |    | -            | -            |
| <b>Total Capital</b>      | \$ | -            | -            |
|                           |    | <u>1,744</u> | <u>1,744</u> |

| Project Term<br>(Years) | <b>Additions</b>  |           | <b>35</b>    | <b>36</b>    |
|-------------------------|-------------------|-----------|--------------|--------------|
| 35                      | NSP Maritime Link | Additions | 2051         | 2052         |
| -                       | 2011              | \$0       |              |              |
| -                       | 2012              | \$0       |              |              |
| -                       | 2013              | \$0       |              |              |
| -                       | 2014              | \$0       |              |              |
| -                       | 2015              | \$0       |              |              |
| -                       | 2016              | \$0       |              |              |
| 1,732                   | 2017              | \$1,732   | \$ 49        | \$ 37        |
| -                       | 2018              | \$0       |              |              |
| -                       | 2019              | \$0       |              |              |
| -                       | 2020              | \$0       |              |              |
|                         | <b>Total</b>      |           | <u>\$ 49</u> | <u>\$ 37</u> |

|                           |           |          |
|---------------------------|-----------|----------|
| Total Annual Depreciation | 49        | 37       |
| Accumulated Depreciation  | 1,695     | 1,732    |
| Accmulated Capital Loss   | -         | 12       |
| <b>Net Book Value</b>     | <u>49</u> | <u>-</u> |

| <b>Construction in Process</b> | 2051     | 2052     |
|--------------------------------|----------|----------|
| Additions                      |          |          |
| Transfers to Capital Additions | 0        | 0        |
| Balance                        | <u>0</u> | <u>0</u> |
| <b>Capital Loss</b>            | -        | 12       |

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1 **Request IR-17:**

2

3 **Reference: Appendix 6.02 page 37 of 42, "PowerShift Atlantic."**

4

5 **Please provide the load shifting capacity assumed from 2013 until 2040, and provide all**  
6 **computations and supporting documentation.**

7

8 Response IR-17:

9

10 No discrete assumption of load shifting was adopted, as the NS Power approach remains in early  
11 stages of implementation. The comment in the report was intended to identify load shifting as a  
12 likely future control action to respond to wind curtailment.

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1 **Request IR-18:**

2  
3 **Reference: Appendix 6.02, Figure 1.1, page 4 of 42 and Section 6.3.2, Page 122 of 151, Figure 6-**  
4 **4 of the Maritime Link Project Application**

5  
6 **(a) Please provide the graph (Figure 1.1 of Appendix, Figure 6-4 of Application) and**  
7 **underlying data in original spreadsheet form, with any formulas intact.**

8  
9 **(b) Please provide all the source documentation and the itemization of each and all cost**  
10 **components (including but not limited to generation, transmission upgrades,**  
11 **stronger links with neighboring utilities, energy storage, load shifting programs, or**  
12 **other) seen in the graph. Indicate the estimated quantities of each component used**  
13 **to determine the range of costs seen in the graph.**

14  
15 **(c) Please provide detailed information on specific capital investments required for**  
16 **incremental wind integration, in blocks of 50 MW as indicated by the figure or any**  
17 **other increments as available.**

18  
19 **(d) Please provide any additional information on any other expected or potential capital**  
20 **investments for wind integration, besides those already accounted for in the Figure.**

21  
22 **Response IR-18:**

23  
24 **(a) Please refer to Attachment 1 for the Graph presented in Figure 6.4 of Appendix 6.02.**  
25 **Please note that the curves are fitted to data points derived in Attachment 2.**

26  
27 **(b) Please refer to Attachment 2 for the supporting worksheet.**

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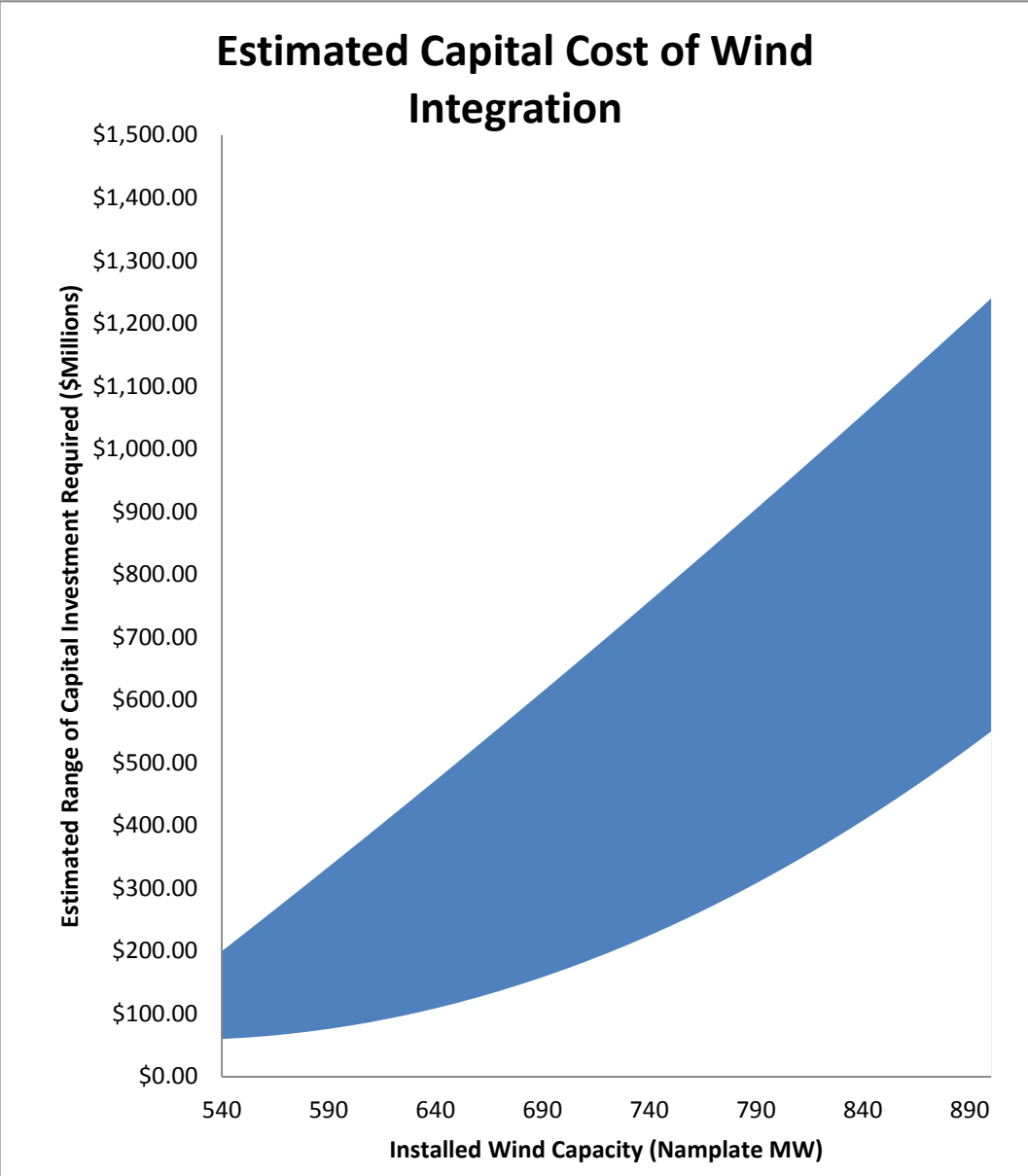
---

1 (c) The data was not derived in 50 MW increments. Please refer to Synapse IR-18  
2 Attachment 2 for information on how the data was derived.

3  
4 (d) This analysis was intended to derive an estimated range of capital costs. Other capital  
5 costs could be applicable such as possible uprates to natural gas infrastructure and  
6 facilities. Incremental operating and maintenance costs would also need to be added to  
7 the estimate.



| <u>MW</u> | <u>Cost Low</u> | <u>Cost High</u> |
|-----------|-----------------|------------------|
| 540 \$    | 60.00 \$        | 200.00           |
| 550 \$    | 61.86 \$        | 226.66           |
| 560 \$    | 64.40 \$        | 253.45           |
| 570 \$    | 67.60 \$        | 280.36           |
| 580 \$    | 71.48 \$        | 307.41           |
| 590 \$    | 76.03 \$        | 334.58           |
| 600 \$    | 81.25 \$        | 361.87           |
| 610 \$    | 87.14 \$        | 389.30           |
| 620 \$    | 93.70 \$        | 416.85           |
| 630 \$    | 100.94 \$       | 444.53           |
| 640 \$    | 108.84 \$       | 472.34           |
| 650 \$    | 117.42 \$       | 500.27           |
| 660 \$    | 126.67 \$       | 528.33           |
| 670 \$    | 136.58 \$       | 556.52           |
| 680 \$    | 147.18 \$       | 584.84           |
| 690 \$    | 158.44 \$       | 613.28           |
| 700 \$    | 170.37 \$       | 641.85           |
| 710 \$    | 182.97 \$       | 670.55           |
| 720 \$    | 196.25 \$       | 699.37           |
| 730 \$    | 210.20 \$       | 728.33           |
| 740 \$    | 224.81 \$       | 757.41           |
| 750 \$    | 240.10 \$       | 786.61           |
| 760 \$    | 256.06 \$       | 815.95           |
| 770 \$    | 272.70 \$       | 845.41           |
| 780 \$    | 290.00 \$       | 875.00           |
| 790 \$    | 307.97 \$       | 904.71           |
| 800 \$    | 326.62 \$       | 934.56           |
| 810 \$    | 345.94 \$       | 964.53           |
| 820 \$    | 365.92 \$       | 994.63           |
| 830 \$    | 386.58 \$       | 1,024.85         |
| 840 \$    | 407.92 \$       | 1,055.21         |
| 850 \$    | 429.92 \$       | 1,085.69         |
| 860 \$    | 452.59 \$       | 1,116.29         |
| 870 \$    | 475.94 \$       | 1,147.03         |
| 880 \$    | 499.95 \$       | 1,177.89         |
| 890 \$    | 524.64 \$       | 1,208.88         |
| 900 \$    | 550.00 \$       | 1,240.00         |



Synapse IR-018 Attachment 2 - Wind Integration Capital Cost worksheet

|                               | <u>Estimated Cost</u>   |                          |
|-------------------------------|-------------------------|--------------------------|
|                               | <u>Low (\$Millions)</u> | <u>High (\$Millions)</u> |
| <u>Wind 540MW Case</u>        |                         |                          |
| New Gas CT Plant #1           | \$ 60.00                | \$ 100.00                |
| New Gas CT Plant #2           | \$ -                    | \$ 100.00                |
| General Transmission Upgrades | \$ -                    | \$ -                     |
| Energy Storage                | \$ -                    | \$ -                     |
| <b>Total Capital Costs</b>    | <b>\$ 60.00</b>         | <b>\$ 200.00</b>         |

**Low Load Case**

|   | <u>Estimated Cost</u>   |                          |
|---|-------------------------|--------------------------|
|   | <u>Low (\$Millions)</u> | <u>High (\$Millions)</u> |
| <u>Wind 780MW Case</u>                  |                         |                          |
| New Gas CC Plant #1                     | \$ 60.00                | \$ 100.00                |
| New Gas CC Plant #2                     | \$ 60.00                | \$ 100.00                |
| New Gas CC Plant #3                     | \$ -                    | \$ 100.00                |
| General Transmission Upgrades & Tieline | \$ 170.00               | \$ 275.00                |
| Energy Storage                          | \$ -                    | \$ 300.00                |
| <b>Total Capital Costs</b>              | <b>\$ 290.00</b>        | <b>\$ 875.00</b>         |

**Base Load Case**

|   | <u>Estimated Cost</u>   |                          |
|---|-------------------------|--------------------------|
|   | <u>Low (\$Millions)</u> | <u>High (\$Millions)</u> |
| <u>Wind 900+MW Case</u>                 |                         |                          |
| New Gas CC Plant #1                     | \$ 60.00                | \$ 100.00                |
| New Gas CC Plant #2                     | \$ 60.00                | \$ 100.00                |
| New Gas CC Plant #3                     | \$ 60.00                | \$ 100.00                |
| General Transmission Upgrades & Tieline | \$ 170.00               | \$ 540.00                |
| Energy Storage (pumped storage)         | \$ 200.00               | \$ 400.00                |
| <b>Total Capital Costs</b>              | <b>\$ 550.00</b>        | <b>\$ 1,240.00</b>       |

**Low Load Case (785MW) - Incremental costs for 250MW of wind**

|  | <u>Estimated Cost</u>   |                          | <u>Estimated Cost Mid (\$Millions)</u> |
|--|-------------------------|--------------------------|--|
|  | <u>Low (\$Millions)</u> | <u>High (\$Millions)</u> |  |
|  | \$ -                    | \$ -                     | \$ -                                   |
|  | \$ 60.00                | \$ -                     | \$ -                                   |
|  | \$ -                    | \$ 100.00                | \$ -                                   |
|  | \$ 170.00               | \$ 275.00                | \$ 222.50                              |
|  | \$ -                    | \$ 300.00                | \$ 150.00                              |
|  | <b>\$ 230.00</b>        | <b>\$ 675.00</b>         | <b>\$ 372.50</b>                       |

**Base Load Case (960MW) - Incremental costs for 425MW of wind**

|  | <u>Estimated Cost</u>   |                          | <u>Estimated Cost Mid (\$Millions)</u> |
|--|-------------------------|--------------------------|--|
|  | <u>Low (\$Millions)</u> | <u>High (\$Millions)</u> |  |
|  | \$ -                    | \$ -                     | \$ -                                   |
|  | \$ 60.00                | \$ -                     | \$ -                                   |
|  | \$ 60.00                | \$ 100.00                | \$ -                                   |
|  | \$ 170.00               | \$ 540.00                | \$ 355.00                              |
|  | \$ 200.00               | \$ 400.00                | \$ 300.00                              |
|  | <b>\$ 490.00</b>        | <b>\$ 1,040.00</b>       | <b>\$ 655.00</b>                       |

**Low Load Case (785MW) - Incremental costs for 250MW of wind**

In the Low Load case we are adding a 50MW CT in the resource plan in 2019 for reserve margin. It is assumed that this CT can be run for wind integration purposes and represents either the 50MW CT in the Low cost case or the 100MW CT in the High cost case. Therefore we did not include a CT in the integration costs in the Low Load. Also note that the CC250MW built in 2030 in the Low Load case could be built as only the CT portion in 2019 with a HRSG added in 2030 when it is required for energy/ emissions. We did not advance the cost of the CC250 so we kept the costs on the conservative side. We then took the transmissions costs and Energy storage costs and averaged the low and high cost values to get a mid value that was modeled in Strategist (\$372.5M).

**Base Load Case (960MW) - Incremental costs for 425MW of wind**

In the Base Load case we are adding a 50MW CT in the resource plan in 2019 for reserve margin. It is assumed that this CT can be run for wind integration purposes and represents either the two 50MW CT in the Low cost case or the 100MW CT in the High cost case. Therefore we did not include a CT in the integration costs in the Base Load. Also note that the CC250MW built in 2026 in the Base Load case could be built as only the CT portion in 2019 with a HRSG added in 2026 when it is required for energy/ emissions. We did not advance the cost of the CC250 so we kept the costs on the conservative side. We then took the transmissions costs and Energy storage costs and averaged the low and high cost

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1 **Request IR-19:**

2  
3 **Reference: Appendix 6.02, page 4 of 42, potential natural gas infrastructure incremental to**  
4 **costs seen in Figure 1.1, and Application, page 109, future scenarios including substantial**  
5 **volumes of natural gas**

6  
7 **(a) Please provide any underlying estimation or supporting documentation NSPI or**  
8 **NSPML has of potential natural gas infrastructure support increase that may be**  
9 **required to support a wind/gas option.**

10  
11 **(b) Provide monthly, annual, and "peak day" gas consumption estimates that would be**  
12 **required under alternative "wind/gas option[s]". Provide any and all**  
13 **documentation or analysis NSP or NSPML has on the possible range of natural gas**  
14 **requirements by year, month, and/or peak day for 2020 or other future years.**

15  
16 **(c) Please supply the confidential version of the NSP-filed December 2012 Natural Gas**  
17 **Report in Matter 05449.**

18  
19 **(d) Please provide the unredacted version of the Liberty FAM report from June, 2012.**

20  
21 **Response IR-19:**

22  
23 **(a) These estimates have not been completed, but these costs would add to the overall cost of**  
24 **the wind/gas alternative.**

25  
26 Under the wind/gas scenario a significant portion of NS Power's firm generating capacity  
27 would be gas fired; the largest gas fired generation capacity of any of the three  
28 alternatives. Unlike New England where natural gas is a dominant fuel, Nova Scotia is  
29 currently served by a single natural gas pipeline; NS Power must consider the potential

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1 consequences of the loss of this single source on the reliability of the power system.  
2 NERC would expect that utilities consider such a contingency in emergency operations  
3 planning. As modeled, the wind/gas option includes no cost adders for any upgrades or  
4 expansions of natural gas infrastructure, nor does it include any incremental capital costs  
5 for natural gas generators related to dual fuel capability or oil inventory management.  
6

- 7 (b) Annual gas consumption is provided in the Table below for the wind/gas alternative for  
8 both low and base load. Peak day consumption is not available.  
9

| <b>Indigenous Wind Alternative - Annual Gas Consumption</b> |                       |                      |             |                       |                      |
|---|-----------------------|----------------------|-------------|-----------------------|----------------------|
|   | <b>Base Load Gbtu</b> | <b>Low Load Gbtu</b> |             | <b>Base Load Gbtu</b> | <b>Low Load Gbtu</b> |
| <b>2015</b>   | 14419                 | 14173                | <b>2030</b> | 29741                 | 12653                |
| <b>2016</b>   | 11088                 | 10128                | <b>2031</b> | 32789                 | 13944                |
| <b>2017</b>   | 7701                  | 7541                 | <b>2032</b> | 35858                 | 12739                |
| <b>2018</b>   | 7103                  | 5875                 | <b>2033</b> | 40300                 | 14474                |
| <b>2019</b>   | 6395                  | 7318                 | <b>2034</b> | 41964                 | 13847                |
| <b>2020</b>   | 6594                  | 4687                 | <b>2035</b> | 39122                 | 18357                |
| <b>2021</b>   | 5674                  | 4217                 | <b>2036</b> | 41935                 | 19415                |
| <b>2022</b>   | 5661                  | 4146                 | <b>2037</b> | 43056                 | 20297                |
| <b>2023</b>   | 5720                  | 4070                 | <b>2038</b> | 47731                 | 21101                |
| <b>2024</b>   | 7225                  | 4053                 | <b>2039</b> | 50994                 | 22054                |
| <b>2025</b>   | 13007                 | 3945                 | <b>2040</b> | 55503                 | 22285                |
| <b>2026</b>   | 13782                 | 3867                 |             |                       |                      |
| <b>2027</b>   | 16723                 | 3835                 |             |                       |                      |
| <b>2028</b>   | 19139                 | 4838                 |             |                       |                      |
| <b>2029</b>   | 24099                 | 7962                 |             |                       |                      |

- 10  
11 (c) This report is available at the UARB website under matter M05449  
12 [http://www.nsuarb.ca/index.php?option=com\\_content&task=view&id=73&Itemid=82](http://www.nsuarb.ca/index.php?option=com_content&task=view&id=73&Itemid=82)  
13

- 14 (d) This document is available at the UARB website under matter M04972  
15 [http://www.nsuarb.ca/index.php?option=com\\_content&task=view&id=73&Itemid=82](http://www.nsuarb.ca/index.php?option=com_content&task=view&id=73&Itemid=82)

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1 **Request IR-20:**

2  
3 **Reference: NS-NB Border transmission availability, Application, Section 6.3.3 Other Import**

4  
5 **(a) Please provide data on Available Transmission Capacity and/or other metrics of**  
6 **availability from NB to NS, and from NS to NB, over the past two years (calendar**  
7 **years 2011 and 2012) across the NS-NB border. Provide at least summary**  
8 **information on the annual (firm), monthly (firm), daily (firm and non-firm) and**  
9 **hourly (non-firm) availability.**

10  
11 **(b) Based on the non-firm physical availability of "headroom" across the NB-NS**  
12 **border transmission path, and recognizing the limitations that periodically exist**  
13 **across this path, what is NSPML's estimate or range of estimates of the GWh level**  
14 **of annual non-firm energy that could be imported across the NB-NS border, in**  
15 **2020, absent the Maritime link and absent any improvements to the transmission**  
16 **system in NB or NS? Please explain your methodology when providing such an**  
17 **estimate.**

18  
19 **(c) Does NSP or NSPML have any estimate of incremental headroom that could be**  
20 **made physically available across the NB-NS border transmission path with**  
21 **incremental improvements or reinforcements to transmission that are considerably**  
22 **less than the 500MW firm increment assumed in the WKM analysis?**

23  
24 **(d) If so, please provide those estimates and all supporting analysis. If not, please**  
25 **indicate qualitatively any potential incremental improvements that could be made to**  
26 **increase transfer capacity short of the 500 MW upgrade noted in the Application.**

27  
28 **(e) Please confirm that the firm transmission transfer capacity of the Maritime link is**  
29 **250 MW, or explain otherwise.**

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1  
2 **(f) If the "Other Import" alternatives includes a 500 MW firm transfer increase across**  
3 **the NB-NS border, how can that be compared to the Maritime Link's 250 MW firm**  
4 **transfer capacity?**

5  
6 Response IR-20:

7  
8 (a) This information is publicly available at:

9  
10 [http://oasis.nspower.ca/en/home/oasis/monthlyreports/hourly\\_nbintertie.aspx](http://oasis.nspower.ca/en/home/oasis/monthlyreports/hourly_nbintertie.aspx)

11  
12 (b) The alternatives analysis has not included any non-firm imports without improvements as  
13 it is expected that system constraints will only get tighter in 2020 as load in the Maritimes  
14 grows.

15  
16 (c-d) Please refer to CanWEA IR-54 (c) and (d).

17  
18 (e) Confirmed.

19  
20 (f) Please refer to CanWEA IR-54 (b) and CA IR-57(b).

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1 **Request IR-21:**

2

3 **Reference: (i) Appendix 2.01, Page 17 of 35, New Brunswick Transmission Utilization**  
4 **Agreement and (ii) Page 35 of 151, Line 5 of the Maritime Link Project Application.**

5

6 **Please provide detailed information regarding Emera's transmission rights attached to its**  
7 **Bayside Generating Station in St. John and the mechanism for its potential use in**  
8 **providing a transmission path for transmission of energy through New Brunswick to the**  
9 **US Border.**

10

11 **Response IR-21:**

12

13 Please refer to UARB McMaster IR-12.

**NON-CONFIDENTIAL**

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1 **Request IR-22:**

2

3 **Reference: Section 3.1, Page 41 of 151, Line 3, of the Maritime Link Project Application**

4

5 **(a) Please provide additional information on the reference to anticipated retirement of**  
6 **coal units in the province of Nova Scotia due to availability of energy (NS Block &**  
7 **Supplemental Block) from the Muskrat Falls Generating Station.**

8

9 **(b) In particular, if not provided elsewhere please indicate the expected use of all coal**  
10 **plants in the Province, by year, for each of the Maritime Link and the import and**  
11 **indigenous wind alternatives. Include monthly capacity factor expectations for those**  
12 **coal plants or some other indicator of the planned pattern of use of the coal plants.**

13

14 **Response IR-22:**

15

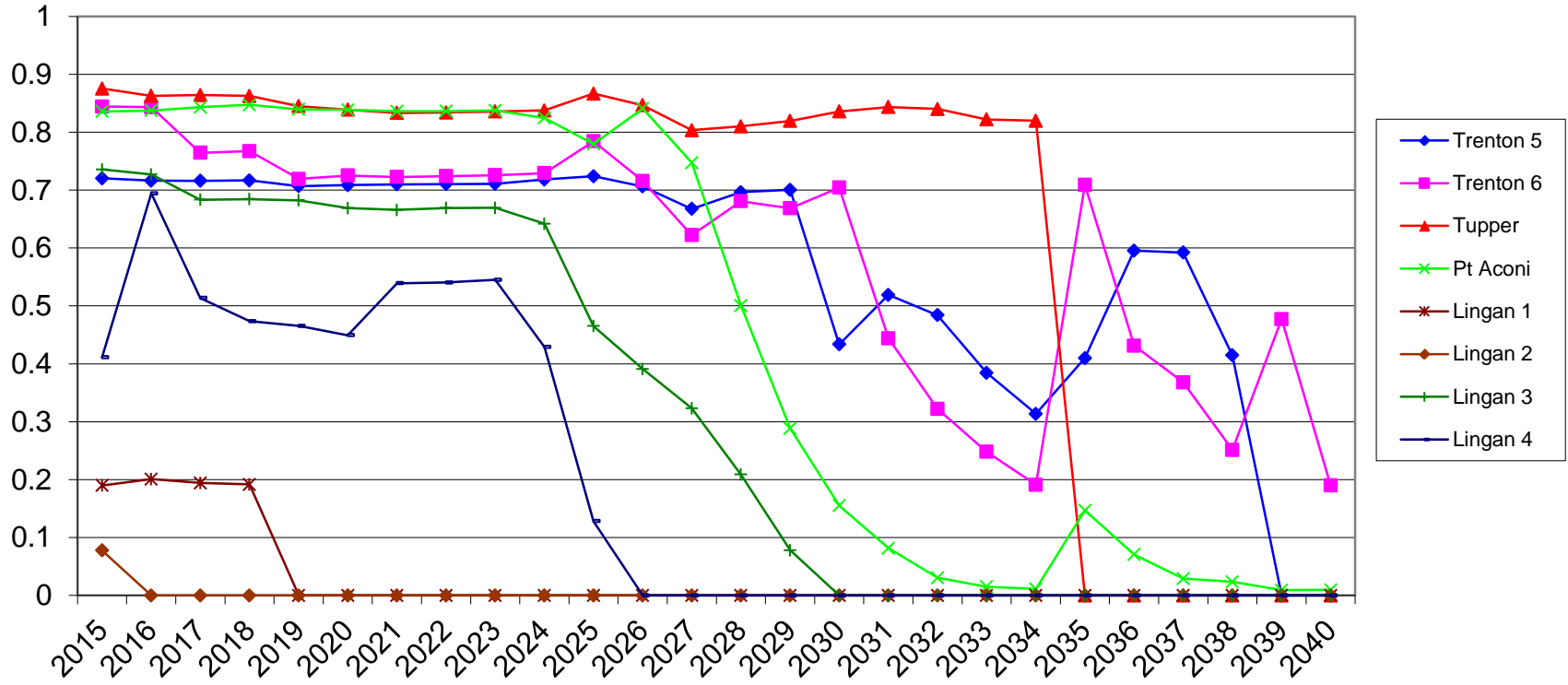
16 (a) The 153 MW of firm capacity and the related energy of the NS Block will allow for the  
17 retirement of a coal unit and the additional energy purchased will reduce the use of other  
18 units until it is economic to replace the capacity with combined cycle natural gas units.

19

20 (b) Please refer to Attachment 1, filed electronically, for annual coal plant utilization  
21 (capacity factor) for each alternative and under both load cases. Monthly capacity factors  
22 have not been derived.



## Projected Capacity Factors - Coal Units



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1 **Request IR-23:**

2

3 **Reference: Section 3.1, Page 41 of 151, Line 8 of the Maritime Link Project Application**

4

5 **Please provide additional information on the reference to circumstances in which flow of**  
6 **energy on the Maritime Link will be from Nova Scotia to Newfoundland and Labrador.**

7 **What are the circumstances and when are they expected?**

8

9 Response IR-23:

10

11 As a general principle, the facility for reverse flow is desirable to provide the capability for  
12 emergency backup in both directions, similar to the mutual benefits realized in an AC  
13 interconnection between adjacent control areas.

14

15 Specific examples of circumstances in which reverse flow may be needed include periods of  
16 off-peak sales when Nalcor may wish to purchase energy allow them to store hydro for the peak.  
17 Other circumstances would include system disturbances in NL that lead to a capacity shortfall,  
18 when there may be an opportunity for NS and NB to provide supply to NL depending on the  
19 circumstances in the region.

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1 **Request IR-24:**

2  
3 **Reference: Section 3.2.11 System Reinforcement Requirements, Page 53 of 151, Line 7 16**  
4 **of the Maritime Link Project Application**

5  
6 **Please provide additional information on planning studies or reports that demonstrate the**  
7 **need of an additional 230 kV transmission line from the Bottom Brook Substation to a**  
8 **point on the existing Newfoundland electric grid. Please also provide information on any**  
9 **other transmission upgrades or reinforcements required to the electric grid on**  
10 **Newfoundland, as a part of enabling transfer of energy on the Maritime Link.**

11  
12 **Response IR-24:**

13  
14 A full power flow contingency analysis was completed by Newfoundland & Labrador Hydro  
15 (NLH) through an Electrical Coordination Team comprised of Nalcor/NLH and NSPML, which  
16 identified the need for transmission upgrades across the island. With the Maritime Link (ML)  
17 loaded at 500 MW, a third circuit is required between Bay D'Espoir and Bottom Brook, and a  
18 third circuit is required between Bay D'Espoir and the Avalon Peninsula, to prevent overloads  
19 under normal system conditions (all transmission in service) and under contingency conditions.  
20 Through this contingency analysis process, the following findings were reached:

- 21
- 22 - A third circuit to the Avalon is required but would be required for NLH to serve load  
23 regardless whether the ML proceeds or not. The cost of this circuit is not included in the  
24 ML costs or the ML/LIL costs, but will be funded by NLH as a separate independent  
25 capital project through the NL-PUB.
  - 26 - TL201 (east of Bay D'Espoir) requires upgrading. Because of the age of this facility, it is  
27 due to be replaced by 2020. Only capital advancement charges are included in the ML  
28 costs, and the base cost will be paid by NLH ratepayers.
  - 29 - The Bay D'Espoir terminal swap is required and of benefit only to the ML.
-

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- 1 - Miscellaneous upgrades to other facilities west of Bay D'Espoir that were budgeted at
- 2 \$60 million, were replaced with thermal overload Special Protection Systems (SPS)
- 3 installed at Bottom Brook, which will runback the converter. The SPS costs are very
- 4 modest.
- 5 - Other minor upgrades of communications, protection and SCADA control facilities are
- 6 required and are included in the ML estimates.
- 7 - The third 230 kV line to Bottom Brook, Granite Canal and Upper Salmon switchyards.

8

9 The NLH 230 kV system runs approximately 500 km from the Avalon Peninsula to Bottom

10 Brook. With the full rated power of 500 MW delivered to Bottom Brook through these existing

11 facilities, the lines would be loaded to 1.9 times their natural loading (Surge Impedance Loading

12 or SIL) under normal conditions. Following a contingency loss of one of these lines, the

13 remaining line would be loaded to 3.8 times its SIL. This would not provide a stable or reliable

14 system.

15

16 In addition to the contingency analyses described above, transient stability analyses have been

17 conducted by Nalcor's consultants which indicates that the three-line supply into Bottom Brook

18 will perform adequately after critical failure events.

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1 **Request IR-25:**

2

3 **Reference: Section 3.2.11 System Reinforcement Requirements, Page 53 of 151, Line 19 of**  
4 **the Maritime Link Project Application**

5

6 **Please provide additional information on planning studies or reports that demonstrate that**  
7 **a new 230 kV transmission line from Bottom Brook substation to the existing Granite**  
8 **Canal Substation is the most optimum addition to the Newfoundland electric grid.**

9

10 Response IR-25:

11

12 Please refer to Synapse IR-24.

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1 **Request IR-26:**

2

3 **Reference: Section 3.2.11 System Reinforcement Requirements, Page 54 of 151, Line 5 of**  
4 **the Maritime Link Project Application**

5

6 **Please provide additional information on planning studies or reports that demonstrate the**  
7 **need of mentioned transmission upgrades at the Woodbine Substation.**

8

9 Response IR-26:

10

11 Please refer to McMaster IR-2 (e).

**NON-CONFIDENTIAL**

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1 **Request IR-27:**

2

3 **Reference: Section 3.2.11 System Reinforcement Requirements, Page 54 of 151, Line 7 of**  
4 **the Maritime Link Project Application**

5

6 **Please provide additional information on planning studies or reports that demonstrate the**  
7 **need of transmission upgrades to the existing 230 kV transmission lines and substations in**  
8 **Nova Scotia to facilitate power wheeling requirements. Please provide information on all**  
9 **required transmission upgrades or reinforcements to the electric grid on Nova Scotia, to**  
10 **enable the receipt and wheel through of energy received via the Maritime Link.**

11

12 **Response IR-27:**

13

14 Please refer to McMaster IR-2(e).

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1 **Request IR-28:**

2

3 **Reference: Appendix 2.01, Page 10 of 35 Maritime Link (Nalcor) Transmission Service**  
4 **Agreement:**

5

6 **(a) For a given assumption on the total bi-directional capacity of the Maritime Link**  
7 **(say 500 MW), clearly indicate the exact provision of transmission rights (in MW)**  
8 **by Emera to Nalcor- in both the Southerly and Northerly Flow and under various**  
9 **transmission service categories such as firm, conditional firm and any such other.**

10

11 **(b) Please provide detailed information on the mechanism for potential**  
12 **reservation/scheduling of such transmission rights by Nalcor (besides the NS Block)**  
13 **and the category (firm, conditional firm etc.) under which such reservation will be**  
14 **made.**

15

16 **Response IR-28:**

17

18 Other than the rights necessary to transmit the NS Block (including Supplemental Energy), all  
19 transmission rights over the Maritime Link will be held by Nalcor. Of the “first” 250 MW of  
20 transmission rights (one cable), the rights are considered firm and are allocated among the NS  
21 Block with the balance to Nalcor. The “second” is available as Conditional Firm to Nalcor. A  
22 detailed scheduling protocol will be established for the Maritime Link prior to the Maritime Link  
23 going into service.



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1 **Request IR-29:**

2

3 **Reference: Appendix 2.01, Page 13 of 35 Nova Scotia Transmission Utilization Agreement**  
4 **(NSTUA).**

5

6 **Please provide detail information on the mechanism for potential reservation/scheduling of**  
7 **transmission between Woodbine Substation and the NS-NB Border by Nalcor and the**  
8 **category (firm, conditional firm etc.) under which such reservation will be made.**

9

10 Response IR-29:

11

12 NSPML is the Emera contracting entity under the Nova Scotia Transmission Utilization  
13 Agreement. Under the Agency and Service Agreement, NS Power has agreed to provide the  
14 Transmission Facilitation Service (that is the transmission of energy on behalf of Nalcor from  
15 Woodbine to the NS-NB Border) to Nalcor in accordance with the Nova Scotia Transmission  
16 Utilization Agreement.

17

18 To provide the Transmission Facilitation Service, NS Power shall contract with the NSPSO,  
19 pursuant to the NS OATT, for a 330 MW Long-Term Firm Point-to-Point Transmission Service  
20 from Woodbine to the NS-NB border. NS Power shall use this transmission service in order to  
21 transmit energy on behalf of Nalcor. As between Nalcor and NSPI/NSPML, scheduling of  
22 energy to be transmitted by NS Power on behalf of Nalcor will be made in accordance with  
23 Schedule 2 (Scheduling Protocol) of the Nova Scotia Transmission Utilization Agreement. As  
24 between NS Power and the NSPSO, scheduling will be made in accordance with the NS OATT.

**NON-CONFIDENTIAL**

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1 **Request IR-30:**

2  
3 **Reference: Appendix 2.01, Page 13 of 35 Nova Scotia Transmission Utilization Agreement**  
4 **(NSTUA)**

5  
6 **(a) Please clearly indicate how the provisions of this agreement enable Nalcor to obtain**  
7 **transmission service from the Woodbine Substation to the NS-NB border in a**  
8 **manner that is deviant from that of obtaining similar transmission service under the**  
9 **provisions of the Nova Scotia Open Access Transmission Tariff (OATT).**

10  
11 **(b) If NSPML asserts that this agreement is in conformance with the current provisions**  
12 **of the OATT, please explain how it is in conformance.**

13  
14 **Response IR-30:**

15  
16 (a) As stated in the response to Synapse IR-29, NS Power will contract with the NSPSO for a  
17 330 MW Long-Term Firm Point-to-Point Transmission Service under the NS OATT.  
18 NS Power will use this transmission service, to schedule and transmit energy on behalf of  
19 Nalcor from Woodbine to the NS-NB border. As between NS Power and Nalcor, the  
20 scheduling, curtailment, payment terms, redirection rights and other service and  
21 commercial terms applicable to the scheduling and transmittal of Nalcor's energy by  
22 NS Power are as set out in the Nova Scotia Transmission Utilization Agreement and not  
23 the NS OATT.

24  
25 (b) The Long-Term Firm Point-to-Point Transmission Service will be obtained, held and  
26 used by NS Power in accordance with the NS OATT. The utilization of this transmission  
27 service by NS Power to facilitate the transmission of the energy on behalf of Nalcor will  
28 not be contrary to the NS OATT.

**NON-CONFIDENTIAL or CONFIDENTIAL or PARTIALLY CONFIDENTIAL or  
CONFIDENTIAL (Attachment Only)**

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1 **Request IR-31:**

2

3 **Refer Appendix 2.01, Page 15 of 35 Nova Scotia Transmission Utilization Agreement**  
4 **(NSTUA):**

5

6 **Please indicate the category of transmission service that may be utilized by Nalcor to**  
7 **transmit energy from the Woodbine Substation to the NS-NB Border for which Emera may**  
8 **need to re-dispatch in order to alleviate transmission constraints. Is there provision of such**  
9 **transmission service in the Nova Scotia Open Access Transmission Tariff (NS OATT)?**

10 **Please identify the relevant tariff section.**

11

12 **Response IR-31:**

13

14 Please refer to the responses to Synapse IR-29 and IR-30. The redispatch obligations of NSPML  
15 in respect of the transmittal of energy on behalf of Nalcor pursuant to the Nova Scotia  
16 Transmission Utilization Agreement are as set out in that Agreement, not the NS OATT.

**NON-CONFIDENTIAL or CONFIDENTIAL or PARTIALLY CONFIDENTIAL or  
CONFIDENTIAL (Attachment Only)**

---

1 **Request IR-32:**

2

3 **Reference: Appendix 2.01, Page 16 of 35 Nova Scotia Transmission Utilization Agreement**  
4 **(NSTUA)**

5

6 **Please clearly provide information on potential transactions where Nalcor will NOT be**  
7 **classified as a Transmission Customer' under the Nova Scotia Open Access Transmission**  
8 **Tariff (NS OATT).**

9

10 Response IR-32:

11

12 Please refer to the responses to Synapse IR-29 and IR-30. NS Power will be classified as the  
13 “Transmission Customer” under the NS OATT in all circumstances associated with the  
14 transmittal of Nalcor’s energy from Woodbine to the NS-NB border pursuant to the terms of the  
15 Nova Scotia Transmission Utilization Agreement. Nalcor is not the “Transmission Customer”  
16 under the NS OATT in the context of the Nova Scotia Transmission Utilization Agreement.

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1 **Request IR-33:**

2

3 **Reference: Confidential Appendix 6.04 Input Assumptions, pages 1-7:**

4

5 (a) **Please provide the data sources and the source documents used to produce the Base**  
6 **Coal Prices in the table on slide 2.**

7

8 (b) **Please provide the data sources and the source documents used to produce the**  
9 **Natural Gas & Oil Prices in the table on slide 3.**

10

11 (c) **Please provide the data sources and the source documents used to produce the**  
12 **Electric Energy Prices in the table on slide 5.**

13

14 (d) **Please provide all analysis and information necessary to show that the electric**  
15 **energy prices are consistent with the previous fuel prices.**

16

17 **Response IR-33:**

18

19 (a) Please refer to Liberty IR-1.

20

21 (b) Please refer to Liberty IR-5.

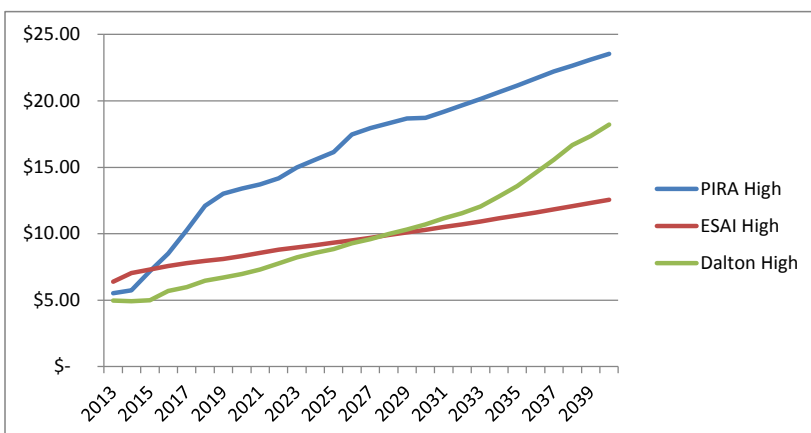
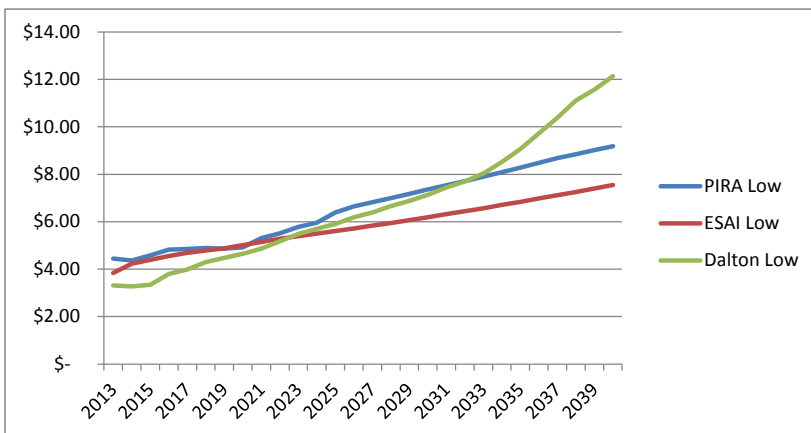
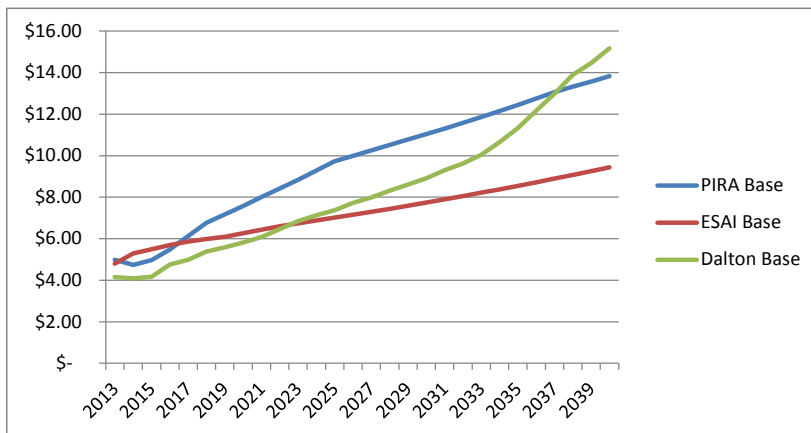
22

23 (c) Please refer to UARB IR-37(a) and UARB IR-37(b).

24

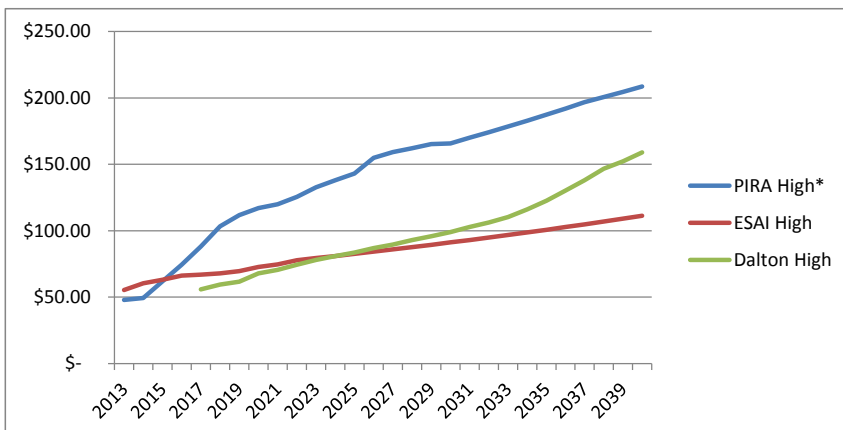
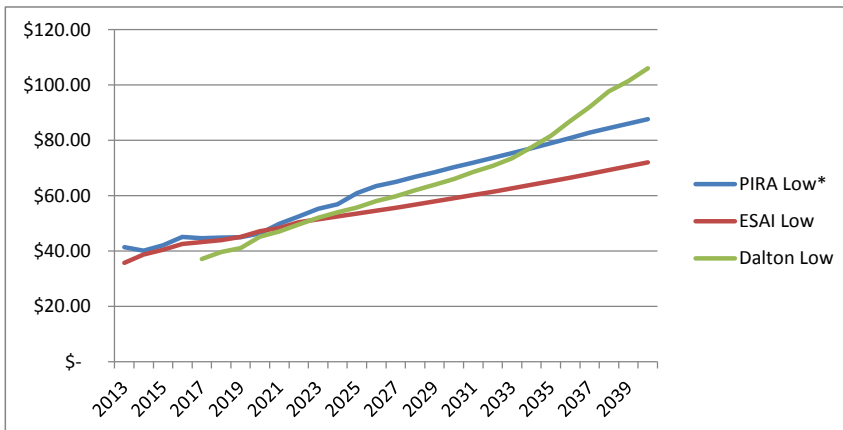
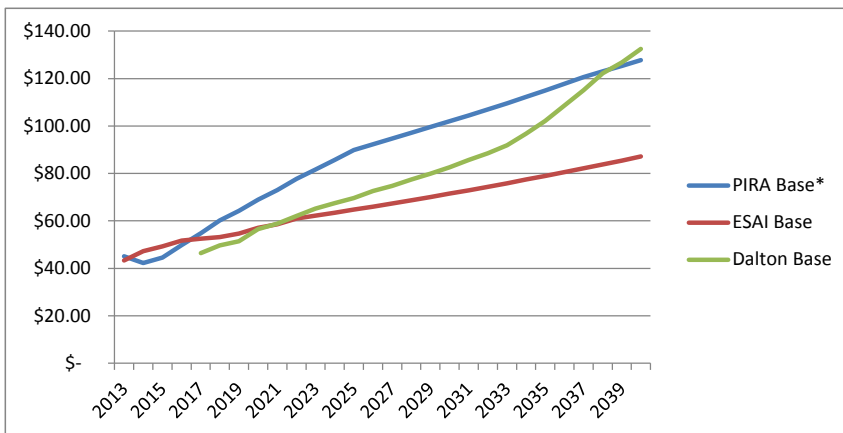
25 (d) The natural gas prices represent a view that gas prices will be higher in the Maritimes  
26 than in New England due to supply constraints. Robustness test scenarios have been run  
27 using a gas price consistent with the gas price underlying the electric energy price. The  
28 Maritime Link remained the lowest cost alternative. Please refer to ELECTRONIC  
29 Attachment 1 for the analysis that shows the consistency of energy and fuel prices.

| NE Natural Gas Prices (\$/mmbtu) |          |           |           |          |           |           |            |             |             |
|----------------------------------|----------|-----------|-----------|----------|-----------|-----------|------------|-------------|-------------|
|                                  | PIRA Low | PIRA Base | PIRA High | ESAI Low | ESAI Base | ESAI High | Dalton Low | Dalton Base | Dalton High |
| 2013                             | \$ 4.45  | \$ 4.99   | \$ 5.53   | \$3.84   | \$4.80    | \$6.39    | \$ 3.32    | \$ 4.15     | \$ 4.98     |
| 2014                             | \$ 4.37  | \$ 4.73   | \$ 5.74   | \$4.23   | \$5.28    | \$7.03    | \$ 3.27    | \$ 4.09     | \$ 4.91     |
| 2015                             | \$ 4.58  | \$ 4.97   | \$ 7.18   | \$4.40   | \$5.50    | \$7.31    | \$ 3.34    | \$ 4.17     | \$ 5.01     |
| 2016                             | \$ 4.83  | \$ 5.47   | \$ 8.51   | \$4.55   | \$5.69    | \$7.57    | \$ 3.80    | \$ 4.75     | \$ 5.70     |
| 2017                             | \$ 4.85  | \$ 6.12   | \$ 10.26  | \$4.69   | \$5.86    | \$7.79    | \$ 3.98    | \$ 4.98     | \$ 5.98     |
| 2018                             | \$ 4.89  | \$ 6.77   | \$ 12.10  | \$4.79   | \$5.98    | \$7.96    | \$ 4.30    | \$ 5.38     | \$ 6.46     |
| 2019                             | \$ 4.87  | \$ 7.17   | \$ 13.02  | \$4.88   | \$6.10    | \$8.11    | \$ 4.47    | \$ 5.59     | \$ 6.71     |
| 2020                             | \$ 4.92  | \$ 7.57   | \$ 13.40  | \$5.01   | \$6.26    | \$8.33    | \$ 4.65    | \$ 5.81     | \$ 6.97     |
| 2021                             | \$ 5.31  | \$ 8.01   | \$ 13.72  | \$5.15   | \$6.43    | \$8.56    | \$ 4.86    | \$ 6.08     | \$ 7.30     |
| 2022                             | \$ 5.51  | \$ 8.42   | \$ 14.18  | \$5.29   | \$6.61    | \$8.79    | \$ 5.18    | \$ 6.47     | \$ 7.76     |
| 2023                             | \$ 5.79  | \$ 8.84   | \$ 15.00  | \$5.39   | \$6.74    | \$8.97    | \$ 5.48    | \$ 6.85     | \$ 8.22     |
| 2024                             | \$ 5.96  | \$ 9.28   | \$ 15.57  | \$5.50   | \$6.88    | \$9.14    | \$ 5.70    | \$ 7.13     | \$ 8.56     |
| 2025                             | \$ 6.39  | \$ 9.73   | \$ 16.15  | \$5.61   | \$7.01    | \$9.33    | \$ 5.90    | \$ 7.38     | \$ 8.86     |
| 2026                             | \$ 6.65  | \$ 9.99   | \$ 17.48  | \$5.72   | \$7.15    | \$9.51    | \$ 6.18    | \$ 7.73     | \$ 9.28     |
| 2027                             | \$ 6.82  | \$ 10.26  | \$ 17.96  | \$5.84   | \$7.30    | \$9.70    | \$ 6.39    | \$ 7.99     | \$ 9.59     |
| 2028                             | \$ 7.00  | \$ 10.52  | \$ 18.31  | \$5.95   | \$7.44    | \$9.90    | \$ 6.66    | \$ 8.32     | \$ 9.98     |
| 2029                             | \$ 7.18  | \$ 10.78  | \$ 18.67  | \$6.07   | \$7.59    | \$10.10   | \$ 6.88    | \$ 8.60     | \$ 10.32    |
| 2030                             | \$ 7.36  | \$ 11.04  | \$ 18.72  | \$6.19   | \$7.74    | \$10.30   | \$ 7.14    | \$ 8.92     | \$ 10.70    |
| 2031                             | \$ 7.54  | \$ 11.31  | \$ 19.18  | \$6.32   | \$7.90    | \$10.50   | \$ 7.44    | \$ 9.30     | \$ 11.16    |
| 2032                             | \$ 7.72  | \$ 11.58  | \$ 19.66  | \$6.44   | \$8.06    | \$10.71   | \$ 7.70    | \$ 9.63     | \$ 11.56    |
| 2033                             | \$ 7.90  | \$ 11.87  | \$ 20.14  | \$6.57   | \$8.22    | \$10.93   | \$ 8.03    | \$ 10.04    | \$ 12.05    |
| 2034                             | \$ 8.09  | \$ 12.15  | \$ 20.64  | \$6.71   | \$8.38    | \$11.15   | \$ 8.53    | \$ 10.66    | \$ 12.79    |
| 2035                             | \$ 8.28  | \$ 12.45  | \$ 21.16  | \$6.84   | \$8.55    | \$11.37   | \$ 9.06    | \$ 11.33    | \$ 13.60    |
| 2036                             | \$ 8.48  | \$ 12.76  | \$ 21.68  | \$6.98   | \$8.72    | \$11.60   | \$ 9.73    | \$ 12.16    | \$ 14.59    |
| 2037                             | \$ 8.68  | \$ 13.07  | \$ 22.22  | \$7.12   | \$8.89    | \$11.83   | \$ 10.38   | \$ 12.98    | \$ 15.58    |
| 2038                             | \$ 8.85  | \$ 13.32  | \$ 22.65  | \$7.26   | \$9.07    | \$12.07   | \$ 11.11   | \$ 13.89    | \$ 16.67    |
| 2039                             | \$ 9.02  | \$ 13.58  | \$ 23.10  | \$7.40   | \$9.25    | \$12.31   | \$ 11.57   | \$ 14.46    | \$ 17.35    |
| 2040                             | \$ 9.19  | \$ 13.84  | \$ 23.55  | \$7.55   | \$9.44    | \$12.55   | \$ 12.14   | \$ 15.18    | \$ 18.22    |



| NE Power Prices (\$/MWh) |           |            |            |          |           |           |            |             |             |
|--------------------------|-----------|------------|------------|----------|-----------|-----------|------------|-------------|-------------|
|                          | PIRA Low* | PIRA Base* | PIRA High* | ESAI Low | ESAI Base | ESAI High | Dalton Low | Dalton Base | Dalton High |
| 2013                     | \$ 41.40  | \$ 45.08   | \$ 47.91   | \$ 35.75 | \$ 43.37  | \$ 55.36  |            |             |             |
| 2014                     | \$ 40.11  | \$ 42.26   | \$ 49.36   | \$ 38.80 | \$ 47.22  | \$ 60.45  |            |             |             |
| 2015                     | \$ 42.16  | \$ 44.56   | \$ 61.96   | \$ 40.47 | \$ 49.25  | \$ 63.08  |            |             |             |
| 2016                     | \$ 45.17  | \$ 49.77   | \$ 74.33   | \$ 42.57 | \$ 51.74  | \$ 66.12  |            |             |             |
| 2017                     | \$ 44.72  | \$ 54.79   | \$ 88.26   | \$ 43.25 | \$ 52.45  | \$ 67.01  | \$ 37.18   | \$ 46.48    | \$ 55.78    |
| 2018                     | \$ 44.86  | \$ 60.23   | \$ 103.28  | \$ 43.96 | \$ 53.24  | \$ 67.94  | \$ 39.69   | \$ 49.61    | \$ 59.53    |
| 2019                     | \$ 45.02  | \$ 64.20   | \$ 111.82  | \$ 45.15 | \$ 54.64  | \$ 69.65  | \$ 41.10   | \$ 51.37    | \$ 61.64    |
| 2020                     | \$ 46.43  | \$ 69.00   | \$ 116.96  | \$ 47.25 | \$ 57.13  | \$ 72.71  | \$ 45.29   | \$ 56.61    | \$ 67.93    |
| 2021                     | \$ 49.87  | \$ 72.96   | \$ 119.86  | \$ 48.38 | \$ 58.59  | \$ 74.78  | \$ 47.09   | \$ 58.86    | \$ 70.63    |
| 2022                     | \$ 52.56  | \$ 77.78   | \$ 125.60  | \$ 50.44 | \$ 61.03  | \$ 77.86  | \$ 49.63   | \$ 62.04    | \$ 74.45    |
| 2023                     | \$ 55.26  | \$ 81.68   | \$ 132.81  | \$ 51.45 | \$ 62.25  | \$ 79.42  | \$ 52.10   | \$ 65.13    | \$ 78.16    |
| 2024                     | \$ 56.90  | \$ 85.71   | \$ 138.00  | \$ 52.48 | \$ 63.50  | \$ 81.01  | \$ 54.01   | \$ 67.51    | \$ 81.01    |
| 2025                     | \$ 61.00  | \$ 89.87   | \$ 143.03  | \$ 53.53 | \$ 64.77  | \$ 82.63  | \$ 55.74   | \$ 69.67    | \$ 83.60    |
| 2026                     | \$ 63.49  | \$ 92.29   | \$ 154.91  | \$ 54.60 | \$ 66.06  | \$ 84.28  | \$ 58.04   | \$ 72.55    | \$ 87.06    |
| 2027                     | \$ 65.06  | \$ 94.70   | \$ 159.18  | \$ 55.69 | \$ 67.38  | \$ 85.97  | \$ 59.80   | \$ 74.75    | \$ 89.70    |
| 2028                     | \$ 66.81  | \$ 97.12   | \$ 162.18  | \$ 56.80 | \$ 68.73  | \$ 87.69  | \$ 62.02   | \$ 77.53    | \$ 93.04    |
| 2029                     | \$ 68.52  | \$ 99.54   | \$ 165.33  | \$ 57.94 | \$ 70.10  | \$ 89.44  | \$ 63.94   | \$ 79.92    | \$ 95.90    |
| 2030                     | \$ 70.30  | \$ 101.95  | \$ 165.81  | \$ 59.10 | \$ 71.51  | \$ 91.23  | \$ 66.06   | \$ 82.58    | \$ 99.10    |
| 2031                     | \$ 71.90  | \$ 104.43  | \$ 170.02  | \$ 60.28 | \$ 72.94  | \$ 93.06  | \$ 68.59   | \$ 85.74    | \$ 102.89   |
| 2032                     | \$ 73.67  | \$ 106.97  | \$ 174.22  | \$ 61.48 | \$ 74.40  | \$ 94.92  | \$ 70.82   | \$ 88.52    | \$ 106.22   |
| 2033                     | \$ 75.42  | \$ 109.57  | \$ 178.45  | \$ 62.71 | \$ 75.88  | \$ 96.82  | \$ 73.53   | \$ 91.91    | \$ 110.29   |
| 2034                     | \$ 77.13  | \$ 112.24  | \$ 182.84  | \$ 63.97 | \$ 77.40  | \$ 98.75  | \$ 77.46   | \$ 96.82    | \$ 116.18   |
| 2035                     | \$ 79.02  | \$ 114.98  | \$ 187.43  | \$ 65.25 | \$ 78.95  | \$ 100.73 | \$ 81.71   | \$ 102.14   | \$ 122.57   |
| 2036                     | \$ 80.87  | \$ 117.79  | \$ 192.03  | \$ 66.55 | \$ 80.53  | \$ 102.74 | \$ 86.95   | \$ 108.69   | \$ 130.43   |
| 2037                     | \$ 82.80  | \$ 120.67  | \$ 196.84  | \$ 67.88 | \$ 82.14  | \$ 104.80 | \$ 92.10   | \$ 115.12   | \$ 138.14   |
| 2038                     | \$ 84.40  | \$ 123.00  | \$ 200.62  | \$ 69.24 | \$ 83.78  | \$ 106.89 | \$ 97.78   | \$ 122.23   | \$ 146.68   |
| 2039                     | \$ 86.06  | \$ 125.37  | \$ 204.58  | \$ 70.63 | \$ 85.46  | \$ 109.03 | \$ 101.46  | \$ 126.83   | \$ 152.20   |
| 2040                     | \$ 87.67  | \$ 127.79  | \$ 208.69  | \$ 72.04 | \$ 87.17  | \$ 111.21 | \$ 106.00  | \$ 132.50   | \$ 159.00   |

\*derived using ESAI H/R



| Implied 24*7 H/R (Btu/kWh) |           |            |            |          |           |           |            |             |             |
|----------------------------|-----------|------------|------------|----------|-----------|-----------|------------|-------------|-------------|
|                            | PIRA Low* | PIRA Base* | PIRA High* | ESAI Low | ESAI Base | ESAI High | Dalton Low | Dalton Base | Dalton High |
| 2013                       | 8,040     | 8,692      | 10,011     | 9,310    | 9,033     | 8,664     |            |             |             |
| 2014                       | 8,874     | 9,983      | 10,531     | 9,173    | 8,935     | 8,599     |            |             |             |
| 2015                       | 8,828     | 9,902      | 8,786      | 9,198    | 8,960     | 8,629     |            |             |             |
| 2016                       | 8,817     | 9,454      | 7,770      | 9,356    | 9,094     | 8,734     |            |             |             |
| 2017                       | 8,920     | 8,570      | 6,531      | 9,222    | 8,953     | 8,602     | 9,333      | 9,333       | 9,333       |
| 2018                       | 8,993     | 7,864      | 5,615      | 9,177    | 8,897     | 8,535     | 9,221      | 9,221       | 9,221       |
| 2019                       | 9,279     | 7,624      | 5,349      | 9,252    | 8,957     | 8,588     | 9,190      | 9,190       | 9,190       |
| 2020                       | 9,597     | 7,550      | 5,426      | 9,431    | 9,119     | 8,729     | 9,744      | 9,744       | 9,744       |
| 2021                       | 9,114     | 7,312      | 5,450      | 9,394    | 9,106     | 8,736     | 9,681      | 9,681       | 9,681       |
| 2022                       | 9,150     | 7,247      | 5,491      | 9,535    | 9,235     | 8,858     | 9,589      | 9,589       | 9,589       |
| 2023                       | 8,887     | 7,038      | 5,295      | 9,545    | 9,235     | 8,854     | 9,508      | 9,508       | 9,508       |
| 2024                       | 8,801     | 6,841      | 5,203      | 9,542    | 9,235     | 8,863     | 9,468      | 9,468       | 9,468       |
| 2025                       | 8,373     | 6,655      | 5,116      | 9,542    | 9,235     | 8,856     | 9,440      | 9,440       | 9,440       |
| 2026                       | 8,209     | 6,610      | 4,822      | 9,545    | 9,235     | 8,862     | 9,386      | 9,386       | 9,386       |
| 2027                       | 8,162     | 6,571      | 4,787      | 9,536    | 9,235     | 8,863     | 9,355      | 9,355       | 9,355       |
| 2028                       | 8,116     | 6,535      | 4,789      | 9,546    | 9,235     | 8,858     | 9,319      | 9,319       | 9,319       |
| 2029                       | 8,071     | 6,504      | 4,791      | 9,545    | 9,235     | 8,855     | 9,293      | 9,293       | 9,293       |
| 2030                       | 8,027     | 6,477      | 4,873      | 9,548    | 9,235     | 8,857     | 9,258      | 9,258       | 9,258       |
| 2031                       | 7,997     | 6,450      | 4,851      | 9,538    | 9,235     | 8,863     | 9,219      | 9,219       | 9,219       |
| 2032                       | 7,966     | 6,423      | 4,829      | 9,547    | 9,235     | 8,863     | 9,192      | 9,192       | 9,192       |
| 2033                       | 7,937     | 6,395      | 4,806      | 9,545    | 9,235     | 8,858     | 9,154      | 9,154       | 9,154       |
| 2034                       | 7,907     | 6,368      | 4,783      | 9,534    | 9,235     | 8,857     | 9,083      | 9,083       | 9,083       |
| 2035                       | 7,877     | 6,341      | 4,761      | 9,539    | 9,235     | 8,859     | 9,015      | 9,015       | 9,015       |
| 2036                       | 7,846     | 6,313      | 4,739      | 9,534    | 9,235     | 8,857     | 8,938      | 8,938       | 8,938       |
| 2037                       | 7,816     | 6,286      | 4,717      | 9,534    | 9,235     | 8,859     | 8,869      | 8,869       | 8,869       |
| 2038                       | 7,824     | 6,290      | 4,718      | 9,537    | 9,235     | 8,856     | 8,800      | 8,800       | 8,800       |
| 2039                       | 7,833     | 6,295      | 4,720      | 9,545    | 9,235     | 8,857     | 8,771      | 8,771       | 8,771       |
| 2040                       | 7,841     | 6,299      | 4,722      | 9,542    | 9,235     | 8,861     | 8,729      | 8,729       | 8,729       |

\*derived using ESAI EnergyPrice

