
Nova Scotia Utility and Review Board

IN THE MATTER OF

*The Maritime Link Act, S.N.S 2012 c.9
and the
Maritime Link Cost Recovery Process Regulation, N.S. Reg. 189/2012*

Maritime Link Compliance Filing

October 21, 2013

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1 **1.0 INTRODUCTION AND REQUEST FOR APPROVAL**

2
3 On January 28, 2013 NSP Maritime Link Incorporated (“NSPML”) filed an Application
4 (the “Application”) under the *Maritime Link Act*, S.N.S. 2012, c. 9 (the “*ML Act*”) and
5 the *Maritime Link Cost Recovery Process Regulations* (N.S. Reg. 189/2012) (the “*ML*
6 *Regulations*”) for approval of the Maritime Link Project (“ML Project”) in the form and
7 on the terms as requested in the Application.

8
9 NSPML requests UARB approval of this NSPML Compliance Filing. This Compliance
10 Filing identifies each condition, and NSPML’s acceptance thereof, arising from the July
11 22, 2013 decision of the UARB in respect of the Application (“Decision”).

12
13 There are several conditions directed in the Decision, which are described more fully
14 herein. In particular, the condition that requires assured access to Market-priced Energy
15 has been addressed. Emera, Nalcor and NS Power have reached an agreement to assure
16 the availability of Market-priced Energy on the terms set out in this Compliance Filing.
17 The details of this commitment are described in Section 2, below.

18
19 The Maritime Link Project refers to the design, construction, operation and maintenance
20 of the Maritime Link transmission facilities, together with related transactions involving
21 the delivery of energy, the provision of transmission services over the Maritime Link
22 and the enabling of transmission service through Nova Scotia, as set out in 13
23 agreements dated July 31, 2012, between Emera and Nalcor, and other parties.

24
25 Under the proposed ML Project, power and energy from the Muskrat Falls Hydro
26 Electric Project will be delivered from Newfoundland and Labrador (“NL”) to Nova
27 Scotia (“NS”).

28
29 The comprehensive regulatory process included two rounds of Information Requests
30 from Intervenors and Board Counsel Witnesses to NSPML, Intervenor Evidence,

1 Information Requests to Intervenors, and Reply Evidence on behalf of NSPML,
2 followed by a Hearing from May 28 to June 6, Closing Briefs from NSPML and
3 Intervenors, and a Closing Reply from NSPML.
4

5 The Decision provides conditional approval of the Maritime Link Project, confirming
6 that upon satisfaction of the Market-priced Energy condition, the Project is the lowest
7 long-term cost alternative to comply with Federal and Provincial emissions
8 requirements.
9

10 The UARB approved NSPML's requested project cost of \$1.52 billion, as well as
11 approving the requested variance amount of \$60 million, for total approved project costs
12 of \$1.58 billion, as requested. The test of prudence will be applied to any potential cost
13 overrun.
14

15 The Board accepted NSPML's proposed capital structure, allowing a 30 percent equity
16 level with the flexibility to allow equity of up to 35 percent during the construction
17 period. The UARB set the NSPML Return on Equity (ROE) at 9.0 percent, within a
18 band from 8.75 percent to 9.25 percent. The UARB did not adopt the requested
19 automatic adjustment formula, but noted that NSPML can return to the Board at any
20 time during construction if there is a need to revisit the ROE level. NSPML's ROE post-
21 construction will be set as part of the cost recovery assessment process. NSPML agrees
22 and accepts the UARB decision with respect to capital structure and ROE.

1 The specific conditions directed by the UARB, and the response by NSPML, are as
 2 follows:
 3

	UARB Condition	NSPML Response
1.	The Board directs as a condition to its approval of the ML Project that NSPML obtain from Nalcor the right to access Nalcor Market-priced Energy (consistent with the assumptions in the Application as noted in NSUARB IR-37 and Figure 4-4) when needed to economically serve NSPI and its ratepayers; or provide some other arrangement to ensure access to Market-priced Energy (paragraph 228).	NSPML agrees and accepts this condition. Compliance with this condition is fully described in Section 2 of this Compliance Filing.
2.	AFUDC can be earned until December 31, 2017 and if the project is delayed beyond that date NSMPL will need to demonstrate prudent management of the construction risk in order to recover additional AFUDC during the delay period (paragraph 366, item 2).	NSPML agrees and accepts this condition. No further action is required at this time.
3.	That there should be no additional costs as a result of related party transactions, timing differences or deferrals. That no markup or earnings will be applied to the NB backstop energy put to NSPI and that no additional earnings will be applied to variances determined by the 60-month transmission true-up. Any credit determined by this true-up will be accrued with interest to the Nova Scotia ratepayers. (paragraph 366, items 3 and 4).	NSPML agrees and accepts this condition. No further action is required.

<p>4.</p>	<p>NSPML will file regular update reports with the UARB on June 15 and December 15 of each year, as well as other oversight requirements which will be fully established following discussions between NSPML and UARB staff about the details (paragraph 366, item 5).</p>	<p>NSPML agrees and accepts this condition. NSPML met with UARB staff on September 25 and we are in agreement about the nature and timing of these requirements. UARB staff undertook to report to the UARB prior to October 15 as directed.</p>
<p>5.</p>	<p>NSPML will follow NS Power’s Code of Conduct and accounting policies until company specific documents are established in future. A regulatory process will be required to establish a Code of Conduct for NSPML (paragraph 366, item 6).</p>	<p>NSPML agrees and accepts this condition, and will work with UARB Counsel and staff in respect of the appropriate timing for these processes.</p>
<p>6.</p>	<p>Details of the asset demarcation for the transfer of the Maritime Link assets and Woodbine Upgrades to Nalcor at the end of the 35 year term of the agreements are to be supplied to the UARB (paragraph 388).</p>	<p>NSPML agrees and accepts this condition; these details will be provided to the Board once finalized in accordance with the Formal Agreements.</p>

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With respect to engineering and design the UARB noted that the Maritime Link Project is a complex and challenging undertaking. The Decision confirms that the engineering and design details are sufficiently advanced for the project to proceed. NSPML will

1 incorporate satisfactory engineering oversight including independent engineer reports,
2 which will be filed with the UARB.

3
4 In addition to details on the items for which approval is required, this Compliance filing
5 provides confirmation that the ML Project has been released from the environmental
6 approval processes.

7
8 NSPML respectfully requests confirmation that the Market-priced Energy condition has
9 been satisfactorily addressed, and approval of this Compliance Filing, and the Energy
10 Access Agreement attached to this Filing.

1 **2.0 MARKET-PRICED ENERGY CONDITION**

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The UARB Decision concluded that the Maritime Link is the lowest long term cost alternative with Market-priced Energy factored in. The Board concluded:

[170] Taking into account all of the evidence, the Board finds, on the balance of probabilities, that the ML Project (with the Market-priced Energy factored in) represents the lowest long-term cost alternative for electricity for ratepayers in Nova Scotia. In the absence of Market-priced Energy, the ML Project is not the lowest long-term cost alternative for electricity for ratepayers in Nova Scotia.

The UARB explained the concept of Market-priced Energy as follows:

[34] On an annual basis, the Maritime Link is capable of transmitting more than 4 TWh of power, while the NS Block of firm power is less than 1 TWh. In addition to the fixed amount of power that must be delivered by Nalcor to NSPML on the Maritime Link (i.e., the NS Block, including the Supplemental Energy), NSPML states that Nova Scotia ratepayers will also have access to additional non-firm power from Muskrat Falls that can be purchased from Nalcor (“Nalcor Surplus Energy”).

...

[36] NSPML stated that the additional energy may be purchased either from Nalcor (i.e., as Nalcor Surplus Energy from Muskrat Falls or as energy generated by Nalcor from other sources) or from other sources (including imports over the NS/NB transmission interconnection) (collectively referred to as “Market-priced Energy”).

...

[159] One of the important potential benefits of the ML Project is that it could provide access to Market-priced Energy. In fact, it is the access to this energy which causes the ML Project (assuming the Market-priced Energy is available) to be the lowest long-term cost alternative for electricity for Nova Scotian ratepayers.

...

1 [225] In the Board's opinion, the price of future Market-priced Energy is
2 not the real concern, as alleged by Intervenors. The Board understands
3 and accepts that it may be advantageous to make opportunity purchases
4 of Market-priced Energy, when it is to NSPI's benefit to do so. In that
5 regard, the Board's primary concern is not exposing a relatively small
6 portion of NSPI's energy portfolio to market prices, rather the concern is
7 that the advantageous opportunity to purchase cannot take place, if there
8 is no Market-priced Energy to buy.
9

10 NSPML and Emera understand the value and importance of having access to market-
11 priced energy as a result of the Maritime Link. NSPML's Application and witnesses
12 highlighted the significant benefit to NS Power and its customers of having a second
13 transmission tie with access to significant amounts of clean, renewable electricity that
14 will be available at market prices.
15

16 The UARB, recognizing the importance of NS Power having access to Market-priced
17 Energy, directed as a condition of approval of the Maritime Link that rights of access to
18 Market-priced Energy be obtained for the benefit of NS Power and its customers in
19 paragraph 228 of its decision.
20

21 In response to the UARB's Market-priced Energy condition, Emera, NS Power and
22 Nalcor discussed the opportunity for a contractual right of access to Nalcor Surplus
23 Energy for the benefit of NS Power's customers and the possible terms and conditions of
24 such an arrangement. The parties have worked earnestly and constructively since July
25 22 to achieve a commercial arrangement that will satisfy the UARB condition.
26

27 Attached to this Compliance Filing as Appendix A is an Energy Access Agreement
28 which contains the terms and conditions of a commercial arrangement that will allow
29 NS Power to obtain access to market-priced energy when economically beneficial in the
30 context of NS Power's domestic supply options. The Energy Access Agreement
31 provides commercial assurance that NS Power will be the first potential Nalcor customer
32 to have access to Market-priced Energy that Nalcor has available for export up to 1.8
33 TWh in each of the years of the Agreement, which extends to 2041, and for an annual

1 average of 1.2 TWh per year over the term. The Energy Access Agreement provides NS
2 Power with the opportunity to contract for energy in volumes that are consistent with
3 Figure 4-4 from the Application, under Low Load planning assumptions. As noted by
4 the UARB:

5
6 [106] On balance, the Board believes that NSPML's "Low Load"
7 forecast, which most closely aligns with NSPI's current load forecast, is a
8 more realistic scenario than NSPML's "Base Load" forecast. The Board
9 accepts the evidence of Synapse, Levitan and Resource Insight that
10 NSPML's "Base Load" forecast is more in the nature of a high load
11 forecast.
12

13 The essence of the arrangement is that Nalcor has committed to both forecast and
14 subsequently bid available energy into annual NS Power competitive solicitations for
15 imported energy, and that NS Power will have access to a minimum average of 1.2 TWh
16 of energy per year over the term.
17

18 The essential terms of the commercial arrangement to provide Market-priced Energy
19 are:

- 20
- 21 • Nalcor will provide updated monthly forecasts of the volume of energy, both on-
22 peak and off-peak, that Nalcor can make available to NS Power in each contract
23 year.
24
 - 25 • Such forecasts will indicate the amount of Nalcor-generated energy available in
26 each contract year up to 1.8 TWh in excess of the requirements to meet NL
27 Native Load and the Nova Scotia Block (subject to an exception for new
28 generation built for specified new export load and pre-existing arrangements
29 with Hydro Quebec).
30
 - 31 • The maximum available energy in any given year will be 1.8 TWh for the
32 purpose of the subsequent bidding obligation, although even greater amounts
33 could possibly be made available to NS Power through any additional

1 competitive market solicitations that may occur from time to time throughout the
2 year.

- 3
- 4 • Nalcor will bid all of the forecasted available amount up to 1.8 TWh into NS
5 Power's annual competitive solicitations for non-firm energy. If NS Power seeks
6 to procure a lower amount Nalcor will bid up to the extent of NS Power's
7 solicitation. The procurement decisions and process for the annual solicitations
8 are within the sole control of NS Power, subject to the provisions of the Energy
9 Access Agreement.

- 10
- 11 • The maximum price that Nalcor will bid is limited to Mass Hub pricing, unless
12 Nalcor has a legitimate market alternative at a higher price, in which case that
13 higher price will be the maximum. Nalcor can, of course, bid a lower price in
14 order to win the solicitation in the competitive market at the time of the
15 solicitation. NS Power need not accept Nalcor's bid if taking the energy is not in
16 the best interests of NS Power customers.

- 17
- 18 • In the event that a Nalcor progress report indicates that the actual average annual
19 amount of energy to be made available to NS Power over the term will be less
20 than 1.2 TWh, Nalcor and Emera will work together to find a commercially
21 reasonable solution, such that not less than an average of 1.2 TWh will be
22 available to NS Power over the term. In such a situation, Emera will become
23 responsible for the variance to a maximum of 300 GWh per remaining contract
24 year under essentially the same terms and conditions to which Nalcor is
25 committed, including participating in annual NS Power competitive solicitations
26 under the same pricing structure. Nalcor will remain responsible for the balance
27 of such variance.

- 28
- 29 • Either NS Power or Emera may use wind generation or another intermittent
30 source of generation to deliver their portion of the Market-based Energy, in

1 which case Nalcor has committed to providing balancing services in accordance
2 with a Balancing Services Agreement.

- 3
- 4 • The result of these activities will be that NS Power will have available for
5 purchase a minimum average of 1.2 TWh of energy per year over the term of the
6 agreement.
- 7
- 8 • Given this is non-firm energy, Nalcor has the ability to reschedule delivery to a
9 later date, provided the re-delivery provides the equivalent economic value to NS
10 Power.
- 11

12 NS Power will use accepted commercial procedures to conduct competitive market
13 solicitations for imported energy.

14

15 The Energy Access Agreement enables NS Power to access a market-priced bid from
16 Nalcor for up to 1.8 TWh of energy in any given year and, on average, 1.2 TWh of
17 energy per year over the term of the Agreement.

18

19 **Newfoundland and Labrador Electrical System**

20

21 The completion of the Muskrat Falls project and associated transmission projects
22 including the Labrador-Island Link and the Maritime Link (the “Projects”), followed by
23 the subsequent retirement of the Holyrood Thermal Generating Station (HTGS), will
24 mark a significant change for Newfoundland and Labrador. When complete, the
25 interconnected electrical power system in Newfoundland and Labrador will be
26 essentially fully renewable through a combination of hydroelectric and wind resources.
27 In addition, for the first time in history, the Island of Newfoundland will be electrically
28 connected to Labrador, and this Newfoundland and Labrador interconnected system will
29 be electrically connected to North America through both Atlantic Canada and Quebec.
30 This will also enable for the first time in history the integration of the large water

1 resources on the Island of Newfoundland with that in Labrador to provide long term
2 secure electrical energy.

3
4 From an operational perspective, the manner in which the renewable energy resources
5 are managed will change to accommodate these realities. This will result in the
6 continuing assurance of a reliable energy supply to electricity customers in
7 Newfoundland and Labrador, with the added ability to obtain full value from the energy
8 resources that will be surplus to Newfoundland and Labrador needs.

9
10 A key difference between an “interconnected fully renewable electrical system
11 (hydro/wind)” and an “isolated renewable/non-renewable electrical system
12 (hydro/thermal-Holyrood/wind)”, is how variations in the amount of precipitation,
13 inflow and wind are managed year to year. In an isolated renewable/non-renewable
14 system, shortfalls in electricity from hydro plants in a drier year are made up by running
15 the thermal plant at a higher output level. In an interconnected fully renewable system,
16 the renewable generating plants must be designed to meet load requirements even in the
17 driest years, and the surplus energy that becomes available in the wetter years can be
18 exported.

19
20 A significant feature and consideration for a predominately hydroelectric and wind
21 based supply mix is the difference between “firm” and “average” energy production
22 which is directly driven by annual variations in the source of fuel (water and wind).

23
24 **Firm Energy Capability** for the hydroelectric resources is the annual
25 energy production capability of those resources under the lowest
26 sequence of reservoir inflows occurring within the historical record.
27 Similarly, Firm Energy Capability for the wind resources is based on the
28 estimate of annual energy production during the lowest historical wind
29 period.
30

1 **Average Energy Capability** is simply the average annual energy
2 production capability of the hydroelectric and wind resources based on
3 historical reservoir inflows and wind conditions throughout the historical
4 record.

5 This feature, which is quite different from thermal based electricity systems such
6 as Nova Scotia’s present system, necessitates the establishment of appropriate
7 planning standards to ensure reliable supply to customers. From an energy
8 supply perspective, the Generation Planning Criteria require that Nalcor plan to
9 meet firm load with Firm Energy Capability. This ensures that even in the
10 lowest inflow year, all of the electricity needs of Newfoundland and Labrador
11 customers can still be fulfilled. This also ensures that surplus energy is available
12 for export in all other years.

13
14 Nalcor forecasts that, based only on the difference between Firm Energy
15 Capability and Average Energy Capability, and excluding any Surplus Firm
16 energy that may exist in the system, Nalcor will be exporting on average in
17 excess of 1.2 TWh of energy annually (by definition, more in some years and
18 less in other years, depending on the precipitation and inflow patterns and NL’s
19 needs). By application of the Generation Planning Criteria, this will continue to
20 be the case notwithstanding the amount of load growth that may eventually occur
21 in the Province, which growth will need to be capable of being met by Firm
22 Energy Capability. Additionally, Surplus Firm energy not required in any given
23 year is also available for export.

24
25 This amount of average Nalcor surplus energy is consistent with the amounts
26 modelled to be taken by NS Power as demonstrated in the scenario of Figure 4-4
27 (Undertaking U-3) accepted by the Board as the more realistic forecast.
28 Therefore, the Energy Access Agreement complies with the UARB Market-
29 priced Energy condition because NSPML has obtained from Nalcor, “the right to

1 access Nalcor Market-priced Energy (consistent with the assumptions in the
2 Application as noted in NSUARB IR-37 and Figure 4-4) when needed to
3 economically serve NSPI and its ratepayers”.

4 As the UARB explained in the Decision, NS Power will continue to have
5 responsibility to make prudent power procurement decisions as it would under
6 the Fuel Adjustment Mechanism (FAM). This prudent commercial behavior is
7 anticipated to include competitive market solicitations for energy, including the
8 solicitations described in the Energy Access Agreement, which will allow for
9 access to Market-priced Energy. This aligns with the UARB comments:

10

11 [231] The Board notes that NSPI will be required to act prudently in the
12 acquisition of Market-priced Energy as it would with all other fuel related
13 decisions. Decisions related to the purchase of Market-priced Energy will
14 be subject to the provisions of NSPI’s Fuel Adjustment Mechanism and
15 the oversight that occurs under that mechanism.
16

17 NSPML respectfully submits that the Energy Access Agreement attached as
18 Appendix A is compliant with the UARB Market-priced Energy condition.

1 **3.0 ENVIRONMENTAL APPROVAL**

2
3 NSPML registered the Maritime Link project description in 2011 and filed a
4 comprehensive Environmental Assessment Report for the Maritime Link Project
5 in January 2013. The report provided each jurisdiction with a complete overview
6 of the project and included input from aboriginal groups and stakeholders. The
7 report also identified mitigation measures to ensure the project is constructed in
8 an environmentally appropriate manner.
9

10 On June 21, 2013, the Maritime Link received an Environmental Assessment
11 release from the Federal environmental approval process. It also received
12 environmental approval from Nova Scotia Environment, and from Newfoundland
13 & Labrador's Department of Environment and Conservation. The Environmental
14 Assessment is a formal regulatory review that considers environmental, social and
15 economic effects of projects. Regulated through federal and provincial
16 governments, the EA process ensures that projects proceed in an environmentally
17 responsible manner.
18

19 The Nova Scotia Department of Environment approval was made in accordance
20 with Section 40 of the *Environment Act*, S.N.S, 1994-95 and subsection 13 (1)(b)
21 of the *Environmental Assessment Regulations*, N.S. Reg. 348/2008 made under
22 the Act. The approval from Newfoundland and Labrador found that the EA report
23 from ENL complied with part X of the *Environmental Protection Act*, SNL 2002
24 cE-14.2, and the project could proceed as per Section 67 of the Act, and was
25 released from further federal assessment, subject to certain terms and conditions.
26

27 Further detail on the EA release and process can be found at the following links:
28

29 Federal process: [http://www.ceaa-acee.gc.ca/050/document-](http://www.ceaa-acee.gc.ca/050/document-eng.cfm?document=90323)
30 [eng.cfm?document=90323](http://www.ceaa-acee.gc.ca/050/document-eng.cfm?document=90323)

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NS process: <http://www.gov.ns.ca/nse/ea/maritime-link.asp>

NL process:

http://www.env.gov.nl.ca/env/env_assessment/projects/Y2011/1618/index.html

1 **4.0 CONCLUSION AND NEXT STEPS**

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This Compliance Filing outlines the specific approval conditions expressed in the UARB Decision, and describes NSPML’s compliance with each condition. Specifically, NSPML agrees with each of the UARB Conditions, and is compliant with each condition.

This Compliance Filing confirms that NSPML has worked with UARB staff on oversight and reporting requirements, and will work with UARB staff and Counsel in respect of the timing for the necessary regulatory processes for NSPML. The filing confirms that the Maritime Link has been released from the environmental approval processes in each jurisdiction.

With regard to the Market-priced Energy Condition, Appendix A contains an Energy Access Agreement among Nalcor, NS Power and Emera. The commitment represented by the Energy Access Agreement will assure compliance with such UARB Condition, and allow continued UARB oversight and control over transactions that deliver Market-priced Energy consistent with the assumptions contained in the Application.

As a result of the commitments from Nalcor, NS Power and Emera described in this Compliance Filing and contained in the Energy Access Agreement, the concerns identified by the Board relating to access to Market-priced Energy have been addressed.

Emera is continuing to take steps to satisfy applicable conditions precedent to obtaining the Federal Loan Guarantee required for an Emera Maritime Link financial close.

1 NSPML respectfully submits that this Compliance Filing, and the Energy Access
2 Agreement attached as Appendix A, achieves compliance with the UARB
3 Market-priced Energy condition. NSPML respectfully requests approval of the
4 Energy Access Agreement and this Compliance Filing, as filed.