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# **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*

## **NSPML Quarterly Report Q2 2021**

**June 15, 2021**

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1 **1.0 INTRODUCTION**

2  
3 This is the Q2 2021 Quarterly Report for the Maritime Link as directed by the Utility  
4 and Review Board (UARB) where the UARB ordered in its Supplemental Decision:

5  
6 [115]....detailed reports must be filed by NSPML on a semi-  
7 annual basis, on June 15 and December 15 each year. The reports  
8 shall commence December 15, 2013. Updated status reports must  
9 be filed quarterly.

10  
11 As per the UARB’s order in its Decision regarding the Maritime Link Interim Cost  
12 Assessment (M07718), this Report now includes detail regarding the status of the  
13 construction of Nalcor’s assets.

14  
15 This Decision also requested that the quarterly reports include an accounting of all  
16 transactions related to this project, cash flow analysis, and a reporting of the financial  
17 and other benefits realized for ratepayers from the Maritime Link prior to delivery of  
18 the Nova Scotia Block and Nalcor market-priced energy. Given that the benefits to  
19 ratepayers prior to the Nova Scotia Block and Nalcor market-priced energy are secured  
20 by Nova Scotia Power through the Maritime Link, Nova Scotia Power will report on  
21 these in its Quarterly Fuel Adjustment Mechanism Report.

1 **2.0 UPDATE OF PROJECT SCHEDULE**

2

3 The Maritime Link was placed in-service on January 15, 2018.

4

5 Detail respecting the status of the Nalcor Project and Muskrat Falls is outlined in  
6 Section 2.9.

7

8 **2.1 Gates and Milestones**

9

10 The Maritime Link was placed in-service January 15, 2018.

11

12 **2.2 Safety**

13

14 Safety is a fundamental core value and integral part of every aspect of NSPML's  
15 business.

16

17 In accordance with its COVID-19 response and safe return to normal operations,  
18 NSPML continues to follow a modified work-from-home approach. Where  
19 conditions allow, and following local health guidance, internal workers are returning  
20 to the traditional workplaces in a risk-evaluated and phased manner and are  
21 responding to any changes to local conditions. NSPML continues to be risk-  
22 focused in the assessment of all work activities ensuring that all high-risk work is  
23 reviewed and evaluated both before commencement of activities and through post-  
24 completion evaluations.

25

26 There have been no recordable incidents to date in 2021.

27

28 **2.3 Commercial Activities**

29

30 The key major procurement activities are presented in Table 1 with an update of the  
31 status for each initiative.

32

1 **Table 1 Key Major Procurement Activities**

2

<b>Commercial Activity</b>	<b>Background</b>	<b>Initiative Number</b>	<b>Status in June 2021</b>
HVDC Submarine Cable Supply and Installation	The Contract was awarded to Nexans in January 2014.  Substantial Completion occurred in September, 2017.  Contract Final Completion Certificate signed February 5, 2018.	E11-18	Closed
Converter stations, switchyards and related structures (“converters and structures”)	The Contract was awarded to ABB Inc. in June 2014.  Final System Test Completed January 15, 2018.  Substantial Completion achieved on January 15, 2018.	E12-74	Final Completion achieved; internal closeout process underway.
Right of Way Clearing along Transmission Lines	Contracts were awarded to Majors Logging Limited in NL and to R. MacLean Forestry in NS in February 2014.	E13-88	Closed
Transmission Structures and Grillages	The Contract was awarded to Kalpataru Power Transmission Ltd. in September 2014 for design and delivery of Structures and Grillages.	E13-85	Closed

<b>Commercial Activity</b>	<b>Background</b>	<b>Initiative Number</b>	<b>Status in June 2021</b>
Site Preparation Services (Includes construction of access road upgrades)	<p>The Contract was awarded to JonelJim Concrete Construction (1994) Ltd. for NS Site Preparation Services in September 2014.</p> <p>Contracts awarded to Marine Contractors Inc., MCI Limited Partnership for NL Site Preparation Services in September 2014.</p>	E13-92	<p>Closed</p> <p>Closed</p>
Transmission Line Construction	<p>E13-95 contract terminated as of late 2016.</p> <p>Contract replaced with E16-284 and E16-269 previously reported.</p>	E13-95	Final Completion achieved; internal closeout process underway.
Transmission Line Construction – NL AC Line	<p>The contract with PowerTel was re-assigned to NSPML for the completion of the two Grounding Lines and the HVAC Line. Final Completion was achieved January 31, 2019.</p>	E16-284	Final Completion achieved; internal closeout process underway.
Transmission Line Construction - NL and NS HVDC Lines	<p>The contract for the construction of the HVDC Transmission Lines was awarded to a joint venture of Emera Utility Services and Rokstad Power Corporation (ERJV).</p>	E16-269	Mechanical Completion achieved; contract terminated and all claims resolved; internal closeout process underway.

<b>Commercial Activity</b>	<b>Background</b>	<b>Initiative Number</b>	<b>Status in June 2021</b>
Transmission Line Conductors	<p>The Contract for the supply of conductors was awarded to Midal Cables in March 2015.</p> <p>The contract for the supply of OPGW was awarded to Composite Power Group Inc. in June 2015. This is also within the scope of the E13-87 initiative.</p>	E13-87	<p>Closed</p> <p>Closed</p>
Horizontal Directional Drill (HDD) Construction Program	<p>Contract awarded to Directional Horizontal Drilling (DHD) in January 2016.</p> <p>E13-157 was divided into two contracts.</p> <p>E13-157 A was awarded to Schlumberger in March 2016 for the supply of HDD fluids. E13-157B was awarded to Baker Hughes in April 2016 for the Supply of directional drilling services, drill bits and other materials.</p> <p>E13-158 for marine intervention services was awarded in April 2016 to DOF Marine.</p> <p>The supply of the HDD casing (E15-238) was awarded to East Coast Tubulars Limited in October</p>	<p>E13-156</p> <p>E13-157</p> <p>E13-158</p> <p>E15-238</p>	<p>Closed</p> <p>Closed</p> <p>Closed</p> <p>Closed</p>

<b>Commercial Activity</b>	<b>Background</b>	<b>Initiative Number</b>	<b>Status in June 2021</b>
	2015.		
Accommodations Operations	The contract for the accommodations operations services was awarded to East Coast Catering in April 2015.	E13-89	Closed

1  
2 Note that the internal closeout process regarding the contracts noted above is expected to be  
3 complete in 2021. The outstanding components of the closeout process relate strictly to  
4 internal administrative matters, and are not associated with determination of final cost of the  
5 Project.



1 **2.3.1 Land Access Agreements**

2  
3 The majority of land rights are now in place, and NSPML is in the final stages of  
4 securing any outstanding rights; moving to expropriation for 54 parcels of land as  
5 required where agreement could not be reached, landowners could not be found, or  
6 title to a land parcel was imperfect. NSPML anticipates these will be completed in  
7 2021. These easements do not impact the ability of the project to complete contract  
8 closeouts or to operate according to plan.

9

10 **2.3.2 Funding**

11  
12 The IE Certificates allow for Project costs to be paid from the proceeds of the  
13 Maritime Link Construction Loan under the payment terms of the Material Project  
14 Documents and the Maritime Link Credit Agreement. The final draw against the \$1.3  
15 billion was requested in February 2020.

16

17 **2.3.3 Joint Development Agreements**

18  
19 NSPML continues to work with Nalcor and NS Power to finalize the remaining  
20 operational agreements arising from the Formal Agreements with Nalcor. Please refer  
21 to Attachment 1 for details on the status of these Agreements, which indicate three  
22 Agreements remain to be concluded.

1 **2.4 Engineering Activities**

2

3 Engineering is captured in three main categories across several Work Breakdown  
4 Structures (“WBSs”):

5

6 • HVDC Submarine Cable Supply and Installation - Completed.

7

8 • HVDC Converters and Substations – Completed.

9

10 • Overland Transmission – All project as-builts completed.

11

12 **2.5 Submarine Cables**

13

14 Negotiations are ongoing to secure a contract for the 2021 marine survey scope. This  
15 survey is anticipated to take place in Q3.

16

17 Discussions continue regarding a Contingency Services Agreement to support the  
18 broader Cable Inspection, Maintenance and Repair framework.

19

20 **2.6 Converters and Substations**

21

22 The Construction of the Converters and Substations was completed with the  
23 conclusion of system testing and the Maritime Link placed in-service on January 15,  
24 2018 and all punch list items are completed.

25

26 **2.7 Transmission Lines**

27

28 The overhead transmission system continues to perform well into the fourth year of  
29 operations with no significant reliability or downtime impacts experienced.

30

31 The replacement of dampers is complete, and all other required corrective work on the  
32 Transmission lines has been completed.

1 NSPML continues to pursue claims for transmission repair work under the project  
2 insurance. NSPML is also actively engaged in discussions with the relevant third  
3 parties to resolve any uninsured costs for matters falling within those parties' warranty  
4 obligations.

5  
6 **2.8 Independent Engineer**

7  
8 NSPML continues to be engaged with the Independent Engineer (IE) related to the  
9 Operations phase of the Maritime Link, as per the Federal Loan Guarantee  
10 requirements.

11  
12 Due to the pandemic, there have been no site visits by the IE in 2020 or 2021. The IE's  
13 review of NSPML's 2020 Operations and Maintenance activities is underway and will  
14 be filed with the UARB once completed.

15  
16 **2.9 Status of Nalcor Project and Muskrat Falls**

17  
18 **Muskrat Falls Assets**

19  
20 Unit 1 at Muskrat Falls has been operational since late December 2020 without any  
21 material operational interruptions to this point. Planned modification and corrective  
22 work as already applied to the other generating units will be completed when possible,  
23 including weld repairs and cover fastening modifications.

24  
25 Nalcor is forecasting Unit 2 commissioning and Ready for Operation in June 2021, at  
26 which time Muskrat Falls hydro facilities will be able to produce 50% of nameplate  
27 capacity, or 412MW gross, which is a significant accomplishment on the road to  
28 completion of the remaining 2 units. Repairs to welds and cover fastening issues  
29 identified during overspeed testing, have been successfully completed on Unit 2.

30 Unit 3 assembly is nearing completion, with commissioning and Ready for Operation  
31 forecast for July 2021, having incorporated remedies noted during Unit 2 overspeed  
32 testing.

1 Completion of Unit 4 commissioning and Ready for Operation continues to be forecast  
2 for September 2021.

3  
4 **Synchronous Condensers at Soldiers Pond**

5  
6 Two of three synchronous condensers are forecasted to be completed on or before July  
7 2021, with the third expected to be completed by September 2021. The Synchronous  
8 Condensers are not on the critical path for project completion; however, they are  
9 relevant for system stability purposes as they eliminate the need for Newfoundland  
10 and Labrador Hydro to use the Holyrood Generating Units for equivalent system  
11 stability reasons through the lower power demand months in the summer. The  
12 elliptical bearing modification is reported to be a successful resolution to the vibration  
13 issue identified during commissioning and will be implemented on the remaining two  
14 units being commissioned.

15  
16 **Labrador Island Link**

17  
18 With respect to the HVDC Control System Software development, Nalcor and its  
19 Contractor, GE Grid, completed Factory Acceptance Testing (“FAT”) for Release B of  
20 the Interim Bipole Software in late October 2020. Commissioning of Pole 1 resumed  
21 in late November 2020, and the dynamic commissioning test plan was successfully  
22 completed in mid-December 2020. Dynamic commissioning testing for Pole 2 was  
23 completed in January, with successful 225 MW heat run tests on both Poles.

24  
25 Bipole Trial Operations commenced in March and are now successfully completed,  
26 making the Labrador Island Link available for operation on the Interim Software. The  
27 Final Bipole Software is scheduled for delivery in late July 2021, with Trial  
28 Operations scheduled for September and anticipated completion in November 2021.  
29 NSPML continues to plan for the start of the NS Block at the earliest opportunity in  
30 the second half of 2021.

1 Installation of replacement fiberglass beams is expected to be completed in August  
2 2021; pending the delivery and coordination of associated mono-pole outages for  
3 installation.

4  
5 NSPML and Nalcor meet routinely to discuss completion schedules and coordinate the  
6 initiation of energy transfers across the Labrador Island Link and Maritime Link as  
7 generation is commissioned.

8

9 **2.10 Status of Benefits to NS Power Customers**

10

11 Customer benefits received to date are being reported by NS Power with its Quarterly  
12 Fuel Adjustment Mechanism Report.

1 **3.0 UPDATED COST SUMMARY**

2

3 As per Enerco U-31, section 6, the details below outline the DG3 forecasted costs.

4

5 Table 2 provides an updated cost summary for the Maritime Link, which includes  
6 actual costs incurred as of March 31, 2021 and forecasted total costs for the remainder  
7 of the Project's construction activities.

8

9 Costs associated with transmission line corrective work noted in section 2.7 are  
10 reflected in this report.

11

12 NSPML continues to track and report all costs, actual and forecast, consistent with the  
13 methodologies used in the cost forecast represented in the Maritime Link Project  
14 Application. Capitalized project costs include fully allocated costs for the entire  
15 Project Management Team, including contractors, employees, executives dedicated to  
16 the project, and NS Power seconded employees at rates in accordance with the  
17 Affiliate Code of Conduct. All costs provided are in Canadian dollars.

18

19 Actual AFUDC has been tracked and recorded monthly up to December 31, 2017 and  
20 totals approximately \$209 million as of that date, which is below the \$230 million  
21 amount estimated at the time of filing of NSPML's Application.

1 **Table 2 Updated Cost Summary for the Maritime Link Project**

2

(000's of Canadian Dollars)	Actual Costs						Total Project to Date	Estimate to Completion	Total Project Estimate at Completion (A)
	Description	2011-2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020			
Emera NL Project Management Costs	192,250	940	794	531	319	966	195,800	2,782	198,582
Nalcor Project Support Costs	16,214	-	-	-	-	-	16,214	-	16,214
<b>Construction and Engineering Initiatives</b>	<b>1,345,574</b>	<b>(108)</b>	<b>1,225</b>	<b>2,304</b>	<b>525</b>	<b>2,361</b>	<b>1,351,881</b>	<b>3,322</b>	<b>1,355,203</b>
Environmental Approval	18,397	-	19	-	-	-	18,416	0	18,416
Submarine and related	343,726	(648)	363	8	-	-	343,449	(0)	343,449
Converters, structures, and other ancillary equipment	548,260	50	35	63	73	64	548,545	1,659	550,204
AC and DC Transmission	435,191	490	808	2,233	452	2,297	441,471	1,663	443,134
<b>Total</b>	<b>1,554,038</b>	<b>832</b>	<b>2,019</b>	<b>2,835</b>	<b>844</b>	<b>3,327</b>	<b>1,563,895</b>	<b>6,104</b>	<b>1,569,999</b>
Contingency							-	-	-
Escalation								7,352	7,352
<b>Grand Total</b>	<b>1,554,038</b>	<b>832</b>	<b>2,019</b>	<b>2,835</b>	<b>844</b>	<b>3,327</b>	<b>1,563,895</b>	<b>13,456</b>	<b>1,577,351</b>

3

4

5 Note: Total forecast for Project completion continues to be within the DG3 Budget of  
6 \$1.577 B. No amount has been estimated in this forecast for the potential recovery of  
7 costs from third parties, which continue to be advanced. Any such recovery will  
8 reduce the final cost.

9

10 As has been reflected in Table 2, the contingency reserve has been fully utilized. The  
11 remaining escalation reserve is being used to fund remaining contingency draws.

1           **Total Actual Project Costs at end of Q1 2021 Compared to Previous Forecast**

2  
3           The total actual project capital costs incurred during Q1 2021 of \$3,327,000 are  
4           detailed below:

- 5
- 6           •       Emera NL Project Management Costs of \$966,000: Project management costs  
7                   continue to be incurred as work advances relating to procuring and managing  
8                   corrective activities, and ensuring appropriate documentation is in place for  
9                   project closeout and regulatory purposes. NSPML has segregated these capital  
10                  costs from costs relating to operating and maintenance activities and have  
11                  expensed such operating and maintenance costs accordingly.
  
  - 12
  - 13          •       Converters, structures, and other ancillary equipment of \$64,000: This reflects  
14                  the cost of NL Hydro and NS Power system upgrades and modifications, as  
15                  well as the procurement of material spares in both provinces.
  
  - 16
  - 17          •       AC and DC Transmission of \$2,297,000: This reflects corrective transmission  
18                  activities.

19

20          The Project capital cost remains within budget.



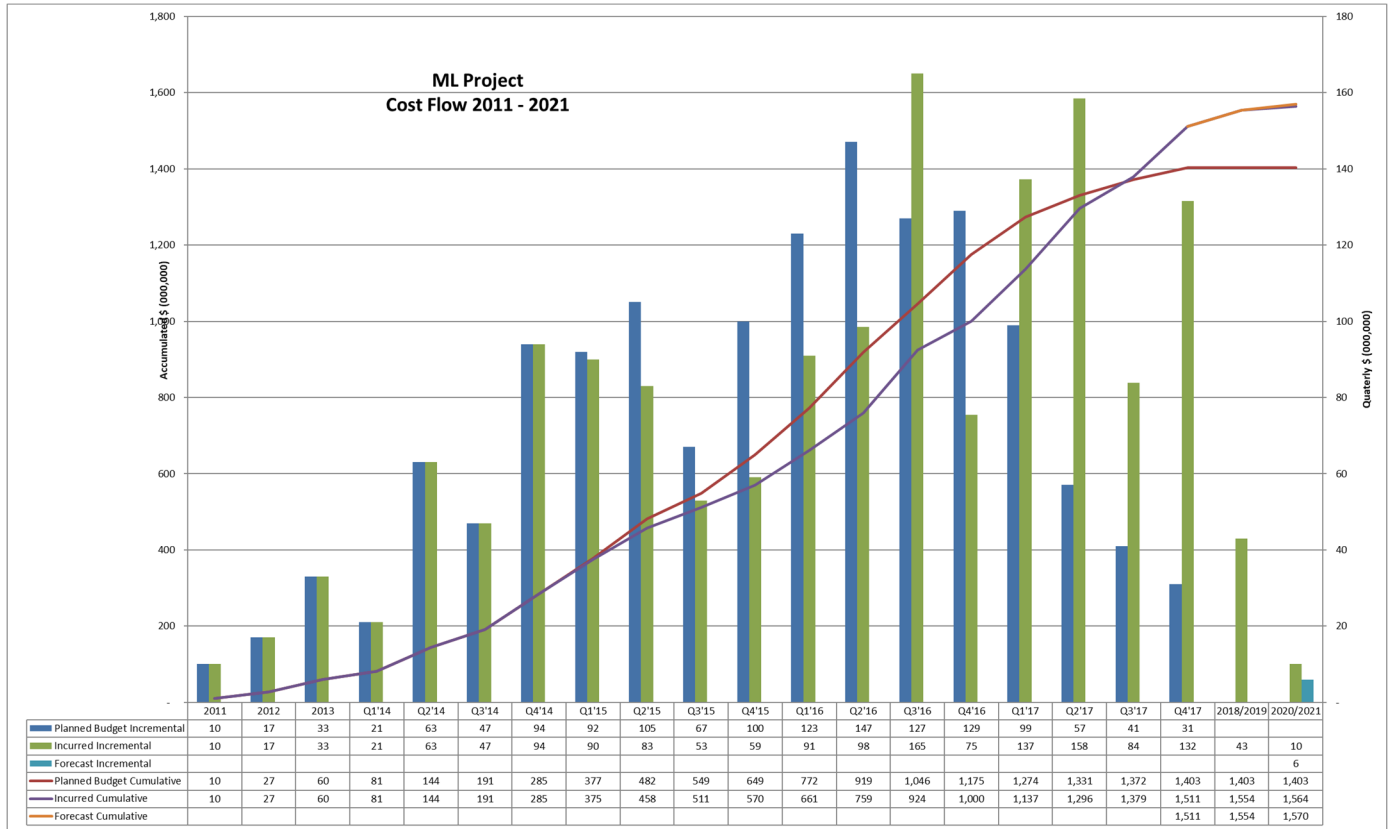
1 **4.0 COST FLOW**

2  
3 As per Enerco U-31, section 2.2, please refer to Table 3 below for the cost flow of the  
4 Maritime Link. This cost flow report for the base capital spending is forecast at  
5 \$1.570 billion (prior to the potential recovery of costs from third parties as noted in  
6 Section 3.0). As reported in the April 2021 Quarterly Report, a contingency draw of  
7 \$6.3 million was approved by the Company's Board of Directors in Q1 2021. As  
8 reflected in Table 2 of this report, the contingency draw was required to address  
9 project management and corrective transmission costs. A final contingency draw may  
10 be required depending on the timing and outcome of potential recovery of costs from  
11 third parties as noted in Section 3.0.

12  
13 The remaining budget includes forecasted costs relating to transmission corrective  
14 activities, completion of documentation and close out of payments to contractors, as  
15 well as regulatory requirements relating to the construction aspect of the project. The  
16 total forecast of base capital spending, escalation, and contingency amounts for the  
17 project remains at or below \$1.577 billion.

1 **Table 3 Maritime Link Cost Flow**

2



3

1 **5.0 INTERIM ASSESSMENT FINANCIAL UPDATE 2021**

2

3

With the Maritime Link placed in-service on January 15, 2018, NSPML continues to receive monthly cost recovery revenues from NS Power pursuant to the Board's orders. NSPML forecasts its 2021 operating and maintenance, debt and equity financing costs to be within the amounts budgeted for the year.

4

5

6