
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 Q1 2021

April 15, 2021

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1 **1.0 INTRODUCTION**

2
3 This is the Q1 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 NSPML has remained steadfast in its commitment to safety as a fundamental and
15 integral part of every aspect of NSPML’s business and core values.

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. Essential
21 operations continue to be identified with the assurance that through internal
22 employees and contracted parties, there is always adequate resourcing to ensure the
23 safe completion of operations. NSPML continues to be risk-focused in the
24 assessment of all work activities ensuring that all high-risk work is reviewed and
25 evaluated before commencement of activities as well through post completion
26 evaluations.

27

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

29

30

31

2.3 Commercial Activities

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

Table 1 Key Major Procurement Activities

Commercial Activity	Background	Initiative Number	Status in April 2021
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	Contract Closeout is in Progress.
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

Commercial Activity	Background	Initiative Number	Status in April 2021
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
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	Contract Closeout is in progress.
Transmission Line Construction – NL AC Line	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.	E16-284	Contract Closeout is in progress.
Transmission Line Construction - NL and	The contract for the construction of the HVDC Transmission Lines was awarded to a joint venture of	E16-269	Contract Closeout is in progress.

Commercial Activity	Background	Initiative Number	Status in April 2021
NS HVDC Lines	Emera Utility Services and Rokstad Power Corporation (ERJV).		
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>E13-156</p> <p>E13-157</p> <p>E13-158</p>	<p>Closed</p> <p>Closed</p> <p>Closed</p>

Commercial Activity	Background	Initiative Number	Status in April 2021
	The supply of the HDD casing (E15-238) was awarded to East Coast Tubulars Limited in October 2015.	E15-238	Closed
Accommodations Operations	The contract for the accommodations operations services was awarded to East Coast Catering in April 2015.	E13-89	Closed

1

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. Please refer to Attachment 2 for the Assignment
23 of Transmission Rights under the ML(E)TSA (#20 in Attachment 1).

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 A partial survey of the Maritime Link cables was completed in December 2020,
15 focused on the part of the cable that was trenched in 2019 in the deep-water sections.
16 The Survey Report is underway and will be submitted to the UARB once completed,
17 along with the summary requested by the Board.

18
19 Planning for the marine survey campaign in 2021 is now in progress with the intent of
20 retaining a contract to complete the survey in the summer.

21

22 **2.6 Converters and Substations**

23
24 The Construction of the Converters and Substations was completed with the
25 conclusion of system testing and the Maritime Link placed in-service on January 15,
26 2018 and all punch list items are completed.

27

28 **2.7 Transmission Lines**

29
30 The overhead transmission system continues to perform well through the third year of
31 operations with no significant reliability or downtime impacts experienced.

32

1 The replacement of dampers is nearing completion, with all work expected to be
2 finalized by mid-year 2021. All other required corrective work on the Transmission
3 lines has been completed.

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

9
10 **2.8 Independent Engineer**

11
12 NSPML continues to be engaged with the Independent Engineer (IE) related to the
13 Operations phase of the Maritime Link, as per the Federal Loan Guarantee
14 requirements.

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.

21
22 Nalcor is now planning for completion of Unit 2 commissioning and Ready for
23 Operation in May 2021, at which time Muskrat Falls will be able to produce 50% or
24 412MW gross in an ongoing manner until Unit 3 is in operation.

25
26 Unit 3 assembly is nearing completion, with installation and assembly approximately
27 94% complete. Completion of Unit 3 commissioning and Ready for Operation is
28 forecast for July 2021, with water-up of the unit planned for May to begin testing.

29
30 Completion of Unit 4 commissioning and Ready for Operation is forecast for
31 September 2021.

1 **Synchronous Condensers at Soldiers Pond**

2
3 All planned commissioning tests for Synchronous Condenser Units 2 and 3 were
4 complete in December 2020. Vibration issues were detected; however, GE Power
5 reported that the elliptical bearing, which is the simpler of two possible solutions, is
6 suitable to address the vibration issues. Nalcor has accepted this solution and continues
7 to indicate that the synchronous condensers will not hinder commissioning of the
8 Labrador-Island-Link or delivery of the NS Block and Supplemental Energy.

9
10 **Labrador Island Link**

11
12 With respect to the HVDC Control System Software development, Nalcor and its
13 Contractor, GE Grid, completed Factory Acceptance Testing (“FAT”) for Release B of
14 the Interim Bipole Software in late October 2020. Commissioning of Pole 1 resumed
15 in late November 2020, and the dynamic commissioning test plan was successfully
16 completed in mid-December 2020. Dynamic commissioning testing for Pole 2 was
17 completed in January, with successful 225 MW heat run tests on both Poles.

18
19 Bipole dynamic commissioning with Release B of the Interim Bipole Software
20 commenced on February 1, 2021. Bipole Trial Operations commenced in March and
21 are ongoing. The Final Bipole Software is scheduled to be delivered in late June 2021.
22 Trial Operations are expected to commence in September 2021, at available power and
23 are scheduled for completion in November. NSPML is planning for the start of the NS
24 Block at the earliest opportunity in the second half of 2021.

25
26 GE is forecasting a delay in the replacement fiberglass beams; however, Nalcor is
27 working on contingency plans and beam replacement timing. Beams are not
28 anticipated to delay final commissioning of the Labrador-Island-Link (LIL) or the
29 commencement of the NS Block. No fiberglass insulating beam issues like those
30 associated with the LIL incidents are associated with the Maritime Link.

1 NSPML continues to be engaged with Nalcor and is closely monitoring Nalcor's plans
2 to mitigate the effects of COVID-19 and LIL issues to schedule, including
3 consideration of the timing of the Nova Scotia Block and Market-priced Energy.

4

5 **2.10 Status of Benefits to NS Power Customers**

6

7 Customer benefits received to date are being reported by NS Power with its Quarterly
8 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 December 31, 2020 and forecasted total costs for the
7 remainder 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 affiliate mark-up rates according to
17 the 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
 3

Description	Actual Costs						Estimate to Completion	Total Project Estimate at Completion (A)
	2011-2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Total Project to Date		
Emera NL Project Management Costs	192,250	940	794	531	319	194,834	(60)	194,774
Nalcor Project Support Costs	16,214	-	-	-	-	16,214	-	16,214
Construction and Engineering Initiatives	1,345,574	(108)	1,225	2,304	525	1,349,520	3,217	1,352,737
Environmental Approval	18,397	-	19	-	-	18,416	20	18,436
Submarine and related	343,726	(648)	363	8	-	343,449	277	343,726
Converters, structures, and other ancillary equipment	548,260	50	35	63	73	548,481	2,337	550,818
AC and DC Transmission	435,191	490	808	2,233	452	439,174	583	439,757
Total	1,554,038	832	2,019	2,835	844	1,560,568	3,158	1,563,725
Contingency						-	-	-
Escalation							13,629	13,629
Grand Total	1,554,038	832	2,019	2,835	844	1,560,568	16,787	1,577,354

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

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.
 12

1 **Total Actual Project Costs at end of Q3 2020 Compared to Previous Forecast**

2
3 The total actual project capital costs incurred during Q4 2020 of \$844,000 are detailed
4 below:

- 5
- 6 • Emera NL Project Management Costs of \$319,000: Project management costs
7 continue to be incurred as work advances relating to closing out of contracts,
8 procuring and managing corrective activities, and ensuring appropriate
9 documentation is in place for project closeout and regulatory purposes.
10 NSPML has segregated these capital costs from costs relating to operating and
11 maintenance activities and have expensed such operating and maintenance
12 costs accordingly.

 - 13
 - 14 • Converters, structures, and other ancillary equipment of \$73,000: This reflects
15 the cost of NL Hydro and NS Power system upgrades and modifications, as
16 well as the procurement of material spares in both provinces.

 - 17
 - 18 • AC and DC Transmission of \$452,000: This reflects corrective transmission
19 activities.

20

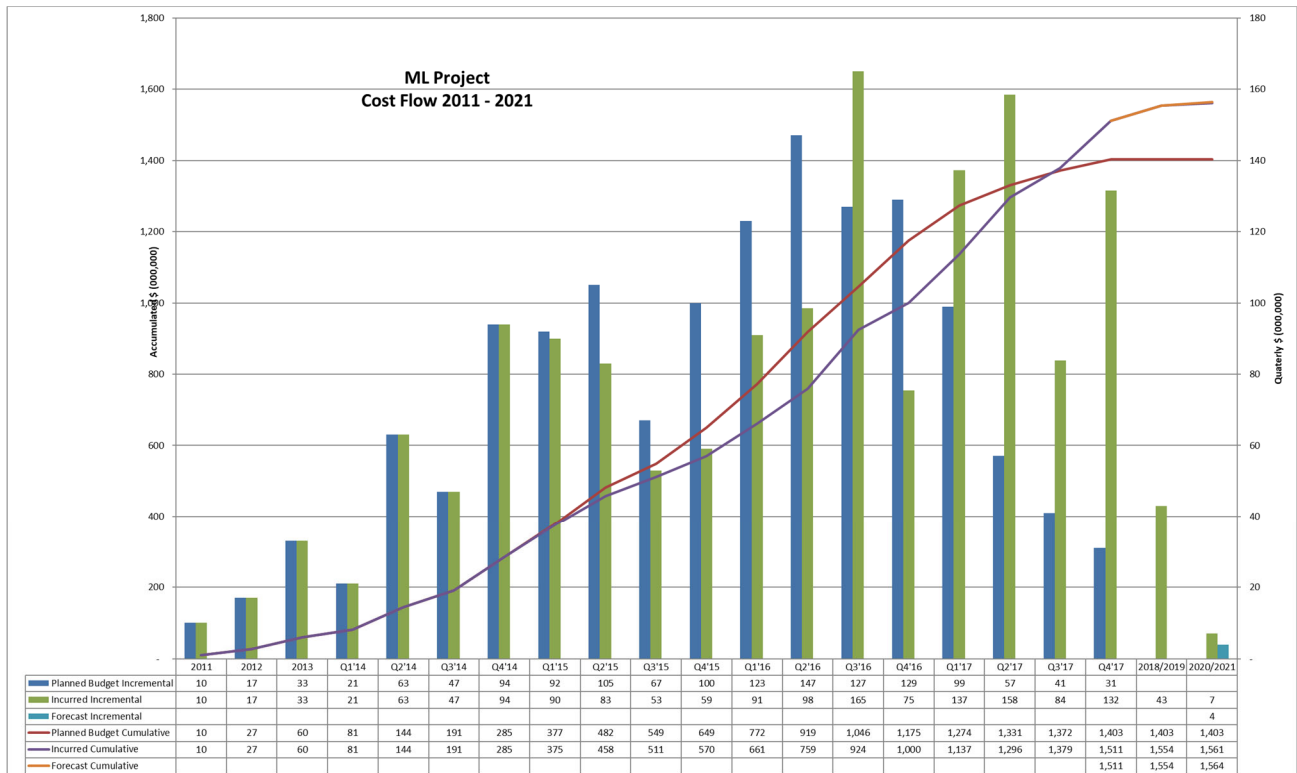
21 The Project capital cost remains within budget.

4.0 COST FLOW

As per Enerco U-31, section 2.2, please refer to Table 3 below for the cost flow of the Maritime Link. This cost flow report for the base capital spending is forecast at \$1.564 billion (prior to the potential recovery of costs from third parties as noted in Section 3.0); an additional contingency draw of \$6.3 million was approved by the Company’s Board of Directors in Q1 2021 and will be detailed in the next quarterly report.

The remaining budget includes forecasted costs relating to transmission corrective activities, completion of documentation and close out of payments to contractors, as well as regulatory requirements relating to the construction aspect of the project. Certain of these costs are expected to take place in 2021 and will require further draws on remaining budgeted contingency/escalation balances. The total forecast of base capital spending, escalation, and contingency amounts for the project remains at or below \$1.577 billion.

Table 3 Maritime Link Cost Flow



1 **5.0 INTERIM ASSESSMENT FINANCIAL UPDATE 2020**

2

3

With the Maritime Link placed in-service on January 15, 2018, NSPML continues to

4

receive monthly cost recovery revenues from NS Power pursuant to the Board's

5

orders. NSPML forecasts its 2021 operating and maintenance, debt and equity

6

financing costs to be within the amounts budgeted for the year.