
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 2015

June 15, 2015

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1 **1.0 INTRODUCTION**

2

3 This is the Q2 2015 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.

1 **2.0 UPDATE OF PROJECT SCHEDULE WITH VARIANCE EXPLANATION**

2

3 As per Enerco U-31, sections 1.1, 1.2, and 1.3, this section provides an update on the
4 Level 1 Project Schedule, along with a variance explanation and general status
5 updates.

6

7 Please refer to Attachment 1 for the Level 1 Project Schedule. For the detailed Project
8 Schedule, please refer to Attachment 2.

9

10 **2.1 Gates and Milestones**

11

12 The Project remains on schedule with commissioning and commencement of
13 operations scheduled for Q4, 2017.

14

15 **2.2 Commercial Activities**

16

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

1 **Table 1**

Commercial Activity	Status in April, 2015	Initiative Number	Status in June, 2015
HVDC Submarine Cable Supply and Installation	The Contract was awarded to Nexans in January, 2014.	E11-18	No Change
Converter stations, switchyards and related structures (“converters and structures”)	The Contract was awarded to ABB Inc. in June, 2014.	E12-74	No Change
Right of Way Clearing along Transmission Lines	Contracts were awarded to Majors Logging Limited in NL, and R. MacLean Forestry in NS in February, 2014.	E13-88	No Change
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	No Change
Site Preparation Services (Includes construction of access road upgrades)	The Contract was awarded to Joneljim Concrete Construction (1994) Ltd. for NS Site Preparation Services in September, 2014. The Contracts were awarded to Marine Contractors Inc., MCI Limited Partnership for NL Site Preparation Services in September, 2014.	E13-92	No Change

2

Commercial Activity	Status in April, 2015	Initiative Number	Status in June, 2015
Transmission Line Construction	The Contract was awarded to Abengoa S.A. in March, 2015.	E13-95	No Change
Transmission Line Conductors	<p>The Contract for the supply of conductors was awarded to Midal Cables in March, 2015.</p> <p>The contract award for the supply of OPGW is anticipated in Q2, 2015. This is also within the scope of the E13-87 initiative.</p>	E13-87	<p>No Change</p> <p>The Contract was awarded to Composite Power Group Inc. in June, 2015.</p>
Horizontal Directional Drill (HDD) Construction Program	<p>The evaluation of the proponents for the Landfall Drilling and Casing Install (E13-156) is complete. Contract negotiations are in progress and the contract award is expected in Q2, 2015.</p> <p>The E13-157 HDD Services RFP was issued in February, 2015 and closed in March, 2015. Evaluations are in progress.</p> <p>The E13-158 Marine Intervention Services RFP was issued in February, 2015 and closed in March, 2015. Evaluations are in progress.</p>	<p>E13-156</p> <p>E13-157</p> <p>E13-158</p>	<p>Contract negotiations are in progress and the contract award is expected in Q3, 2015.</p> <p>No Change</p> <p>No Change</p>

Commercial Activity	Status in April, 2015	Initiative Number	Status in June, 2015
Accommodations	The Accommodations Operations Contract will be awarded early in Q2, 2015.	E13-89	The contract for the accommodations operations services was awarded to East Coast Catering in April, 2015.

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2.2.1 Land Access Agreements

In Nova Scotia and in Newfoundland and Labrador, NSPML is in the process of finalizing fair market value compensation for the remaining expropriated easements. NSPML is also pursuing remaining access trails that will facilitate right of way clearing, construction, and line maintenance activities.

NSPML anticipates filing applications with the UARB pursuant to the Expropriation Act with respect to the remaining parcels; similarly, applications will be made in Newfoundland and Labrador with respect to the remaining parcels in that province. The UARB applications will be filed by the end of June 2015, and the same timeline is anticipated for the Newfoundland and Labrador applications. Rights associated with access trails, as well as additional easements relating to guying anchors, are anticipated to continue to be pursued into 2015 as necessary, in both provinces.

2.2.2 Funding

Funding and Drawdown Requests were submitted to the Collateral Agent and Government of Canada during this period as necessary and all requested funds were received on schedule. Please refer to Attachment 3 for the IE Draw Confirmation Certificates for the period. Note that due to the timing of cash requirements a draw was not required in late April 2015. As a result, a Draw Confirmation Certificate was not required for that month. These draws permit all payments to Material Project

1 Participants to be paid with the proceeds of the ML Construction Loan under the
2 payment terms of the Material Project Documents and the ML Credit Agreement.

3
4 **2.2.3 Joint Development Agreements**

5
6 The definitive Energy Access Agreement has been completed and was filed with the
7 UARB on April 30, 2015.

8
9 **2.3 Engineering Activities**

10
11 Commissioning of the Maritime Link continues to align with the in-service target date
12 of October 1, 2017. Engineering is captured in three main categories across several
13 Work Breakdown Structures (“WBS’s”):

- 14
- 15 • HVDC Submarine Cable Supply and Installation – cable design and
16 manufacturing is being engineered by the supplier of the cable, Nexans, which
17 will include performance criteria consistent with service life and reliability
18 targets subject to approval by NSPML. In this period, Nexans engineering
19 activities progressed covering Cable Design, Marine Installation, Land, Cable
20 and Fibre Optic requirements in advance of the start of trial runs for cable
21 manufacturing. Positive results were determined from Quality audits which
22 were performed at the Futtsu manufacturing plant, where Cable 1 will begin to
23 be manufactured in June, as well as at the Rognan manufacturing plant, where
24 the Fibre Optic Cable will commence manufacturing in Q3.

 - 25
26 • The horizontal directional drilled (HDD) bore trajectories were designed under
27 a separate engineering initiative (E12-51). The Conceptual Plans and profiles
28 were developed by Hatch. The final HDD design was completed in March
29 which provides the necessary documentation for the procurement activities for
30 the HDD construction services.

- 1 • HVDC Converters and Substations - engineering is included in the contract
2 awarded to ABB for the supply and installation of these assets. In this period,
3 the HVDC engineering for system, plant, control and protection, and valve
4 design continued. The AC Substation engineering activities advanced in the
5 period, with the Single Line Diagram (SLD) and Conceptual Design Report
6 related to protection and control systems being issued and reviewed by
7 NSPML. Several studies and reports were also issued including the Reliability,
8 Availability and Maintainability (RAM) report, study outline for the Multi-
9 Infeed Study, Sub-Synchronous Torsional Interaction Screening Study and Pre-
10 insertion Resistor Study. Reviews of the HVDC and Telecommunications
11 design and the converter transformers were completed.
12
13 • Overland Transmission and Switchyard/Grounding Sites – Designs for the
14 Transmission and Grounding lines advanced and are nearing completion. Final
15 design for Point Aconi and the Cape Ray drill pad is complete. Alternative
16 designs for optimization purposes for the Indian Head and Big Lorraine
17 grounding sites are under development.

18
19 **2.4 Submarine Cables (Marine)**

20
21 During this reporting period, reviews of the cable design and the cable manufacturing
22 Inspection and Test Plan (ITP) were completed. Procurement and pre-manufacturing
23 activities prior to the start of the Cable 1 manufacturing in the Futtsu plant progressed
24 as planned. Manufacturing is expected to start in June. Pre-manufacturing activities are
25 progressing as planned and manufacturing of the Fibre Optic Cable is expected to start
26 in Q3. A subsea survey along a portion of the route and close to the HDD entry
27 points in NS and NL is scheduled during the summer of 2015.

28
29 **2.5 Horizontal Directional Drilling (HDD) Boreholes**

30
31 The HDD boreholes in NS and NL are scheduled to be constructed in 2016, a year in
32 advance of installation of the marine cable. The construction will be comprised of

1 three contracts. The RFP for the Landfall Drilling and Casing Install (E13-156) was
2 issued and closed in September 2014 and negotiations are expected to conclude by Q3,
3 2015. The RFP's for Drilling Services (E13-157) and for Marine Intervention Services
4 (E13-158) were issued in February, 2015 and closed in March, 2015. Evaluations are
5 in progress.

6

7 **2.6 Converter Stations**

8

9 Engineering for both the HVDC systems and the AC substation systems advanced as
10 noted above. Procurement activities advanced as planned and quality audits prior to
11 the manufacturing of the ordered transformers were completed in early June, 2015. A
12 listing of local suppliers and contractors continues to be established and
13 communications with the communities are ongoing.

14

15 A proposal to optimize the construction schedule and advance some of the civil work
16 for foundations at Bottom Brook and Woodbine from 2016 to 2015 is in development
17 by the contractor, and will require approval from ENL prior to mobilization and the
18 start of any work.

19

20 **2.7 Right of Way Clearing Contractor(s) – Transmission Lines**

21

22 In NL and NS, the tree clearing for the HVDC and the Grounding lines are
23 substantially complete. Final completion with minor brush cleanup is scheduled for
24 Q3, 2015. The tree clearing crews were mobilized to the Granite Canal site in
25 February, 2015. Following the orientations and safety training, clearing started on the
26 HVAC transmission line between Granite Canal and Bottom Brook.

1 **2.8 Construction Contractor(s) – Transmission Lines**

2 The Transmission Line Construction contract was awarded to Abengoa S.A. in March,
3 2015. Initial planning has commenced and mobilization of crews and construction is
4 scheduled to begin with the grounding lines in NL and NS by Q3, 2015 respectively.
5 Steel tower and grillage design, prototyping and tests are progressing. Some grillage
6 and tower fabrication started in May. Deliveries of foundation grillages are scheduled
7 to begin in Q3 in advance of the start of construction of the HVDC lines in NL and
8 NS. NSPML is monitoring the performance of the tower supplier and deploying
9 additional resources to manage the delivery schedule and mitigate any potential
10 delays.

11
12 **2.9 Construction Contractor(s) – Site Preparation**

13
14 In NL, site preparation continued. Activities at Bottom Brook advanced with the target
15 for completion in Q2. Work at the Indian Head and access road is planned to reach
16 substantial completion at the end of Q2. Work will commence on the Granite Canal
17 site in late Q2. All site preparation in NL is scheduled for completion in Q4, 2015.

18
19 In NS, site preparation has been focused on the Woodbine site which is on schedule
20 for completion at the end of Q2. Site preparation activities at Point Aconi will begin in
21 June and be completed in Q4. Site preparation activities at Big Lorraine are targeted to
22 begin in Q3 and be completed in Q4.

23
24 **2.10 Granite Canal Accommodations Construction**

25
26 The contract for the construction of the 100 person accommodations facility at Granite
27 Canal (E13-89B) was awarded in November, 2014. Major components of the camp
28 (kitchen and dormitory modules) have been assembled. The kitchen and first 50
29 rooms were commissioned and turned over to the operation contractor in April, 2015.
30 The remaining 52 units were turned over in June, 2015.

1 **2.11 Granite Canal Accommodations Operations**

2

3 The contract for the operations of the Granite Canal accommodations facility (E13-
4 89A) was awarded to East Coast Catering in April, 2015 and is underway.

5

6 **2.12 Grounding Sites**

7

8 Construction Initiative RFP (E13-102) for the grounding sites, including the
9 breakwaters in NS and NL, was issued and closed in October, 2014. In Q2, 2015 the
10 site layouts were reviewed for optimization of the design and constructability. This
11 may impact the award and construction dates but is not expected to impact the critical
12 path of the project or negatively impact the budget.

13

14 As a result of any redesign of the breakwater sites, the design of the grounding site
15 electrical equipment may also be updated.

1 **3.0 UPDATED COST SUMMARY**

2
3 As per Enerco U-31, section 2.1, the detail below outlines the DG3 forecasted costs.

4
5 Table 2 below provides an updated cost summary for the Maritime Link, which
6 includes actual costs incurred to the end of Q1, 2015, as well as a forecast of costs to
7 the end of 2017.

8
9 During Q1 2015, after the third of the three major contracts was awarded to Abengoa
10 S.A., NSPML undertook a planned Baseline cost and schedule activity to reexamine
11 the DG3 budget and schedule. This Baseline activity confirmed that the overall
12 budget of \$1.577 billion and commissioning date of October 1, 2017 remains
13 unchanged.

14
15 The Baseline reflected increasing cost confidence since greater than \$1 billion of
16 contract values had been awarded; greater than 20 percent of project costs had been
17 incurred to date; and engineering and construction activities were on schedule for the
18 costs incurred.

19
20 NSPML continues to track and report all costs, actual and forecast (2011-2017),
21 consistent with the methodologies used in the costs forecast represented in the ML
22 Project application, for inclusion in the final approved ML Capital Cost application.
23 Project costs include ML Project team fully allocated costs for executive,
24 management, employees and contractors, and NS Power seconded employees at
25 affiliate mark-up rates according to the Code of Conduct for Affiliate Transactions.
26 All costs provided are in Canadian dollars. AFUDC is being tracked and recorded
27 monthly. Following the Baseline activity, AFUDC remains within the \$230 million
28 amount estimated at the time of filing of NSPML's Application.

Table 2

(000's of Canadian Dollars) Description	Actual Costs				Forecast					Total Project Estimate at Completion	Total Project Estimate at Completion -
	2011-2013	2014	Q1 2015	Total Project to Date	Q2 2015	Q3 2015	Q4 2015	2016 Q1 - Q4	2017 Q1 - Q4		
	Emera NL Project Management Costs	44,379	42,315	6,338	93,032	7,286	8,252	7,085	34,003		
Nalcor Project Support Costs	-	15,232	170	15,402	40	-	-	-	-	15,442	9,040
Construction and Engineering Initiatives	14,975	167,980	83,168	266,123	90,623	65,937	99,215	503,678	182,273	1,207,850	1,207,850
Environmental Approval	2,651	4,378	58	7,087	491	1,117	1,151	4,843	8,863	23,551	23,551
Submarine and related	3,359	83,797	23,826	116,983	23,727	12,974	8,588	67,218	94,451	323,981	323,969
Converters, structures, and other ancillary equipment	1,517	48,747	40,700	90,964	36,080	23,313	44,526	279,333	70,075	544,691	543,227
AC and DC Transmission	7,448	31,057	12,584	51,090	30,326	28,733	44,950	151,684	8,845	315,627	317,102
Total	59,354	225,527	89,676	374,557	97,949	74,190	106,300	537,681	212,323	1,403,000	1,403,000
Escalation	-	-	170	170	-	79	290	1,722	33,263	35,524	35,354
Contingency	-	-	-	-	-	-	-	50,213	88,787	139,000	139,000
Grand Total	59,354	225,527	89,846	374,727	97,949	74,268	106,590	589,617	334,373	1,577,523	1,577,354

Total Actual Project Costs at end of Q1, 2015 Compared to Previous Forecast

The total actual project costs for Q1, 2015 were \$1.7 million less than the Q1 costs forecasted in the NSPML Quarterly Report of April 15, 2015. The explanations of the variances are as follows:

- Project management and other: \$0.2 million lower cost incurrence due to:
 - Timing of land access activities.
 - Lower spending on general and administration expenses including labour, legal and consulting.
- Submarine and related: \$1.6 million higher cost incurrence due to advancement in the schedule for manufacturing preparation activities.
- Converters, structures and other ancillary equipment: \$0.2 million lower cost incurrence due to rescheduling of the early planning and engineering activities for the Converter / Substations supply contract.

- 1 • AC and DC Transmission: \$2.9 million lower cost incurrence attributable to
2 timing of delivery of structures and grillages and accommodations
3 construction.

4
5 These variances do not change the expectation that the Project remains on time and
6 within budget.

4.0 COST FLOW

As per Enerco U-31, section 2.2, please refer to Table 3 below for the cost flow until the Maritime Link is commissioned. This cost flow provides a base capital spending forecast of \$1.403 billion. Escalation and contingency in the amount of \$174 million will be allocated to appropriate accounts if and when necessary to account for expenditures associated with project risks. The total of the base capital spending, escalation, and contingency amounts remains at \$1.577 billion.

As noted in Section 3.0, the Baseline activity resulted in an adjustment to the capital cost profile for the project. As a result, from this point forward, Table 3 will reflect this new cost profile.

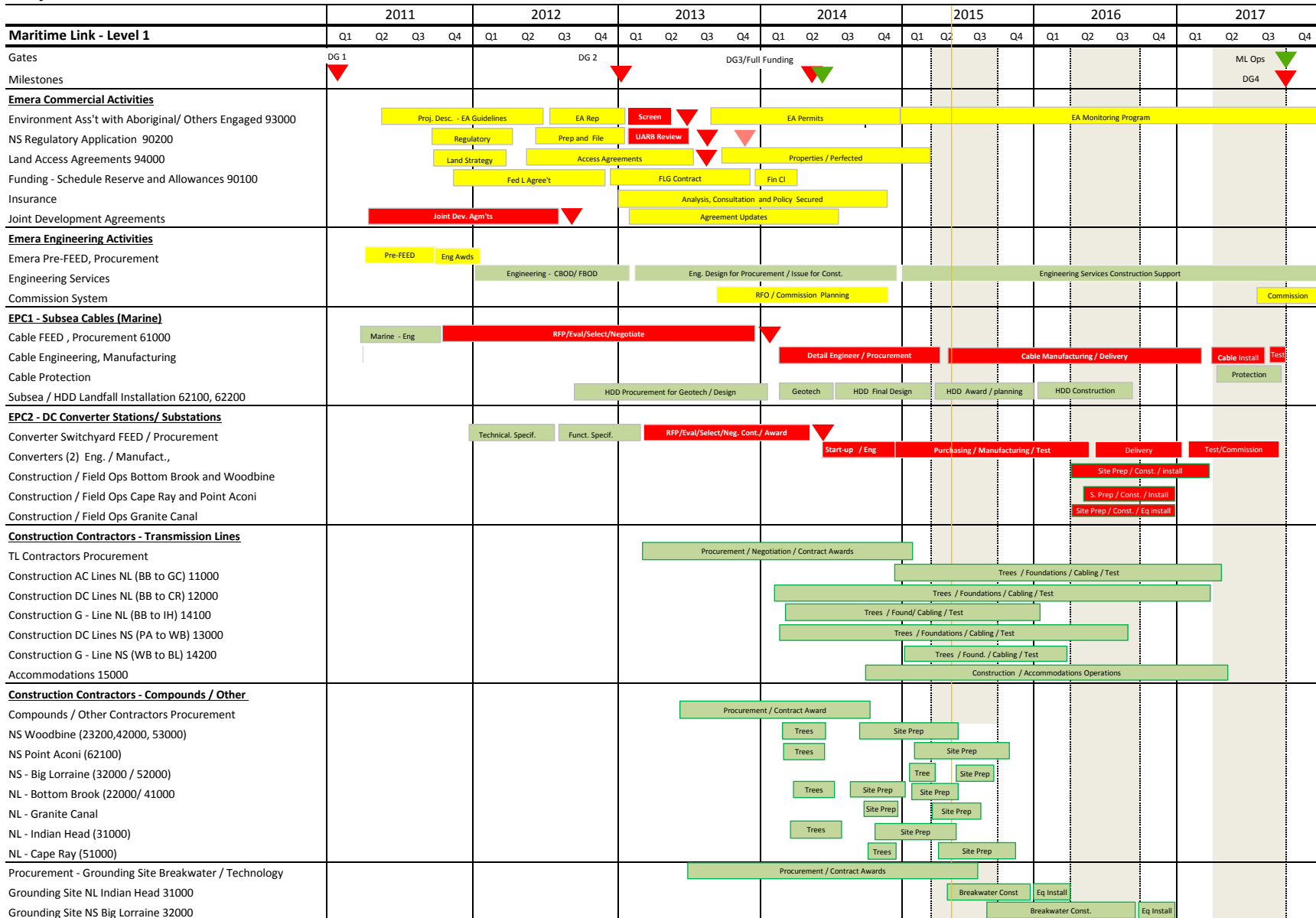
Table 3



15

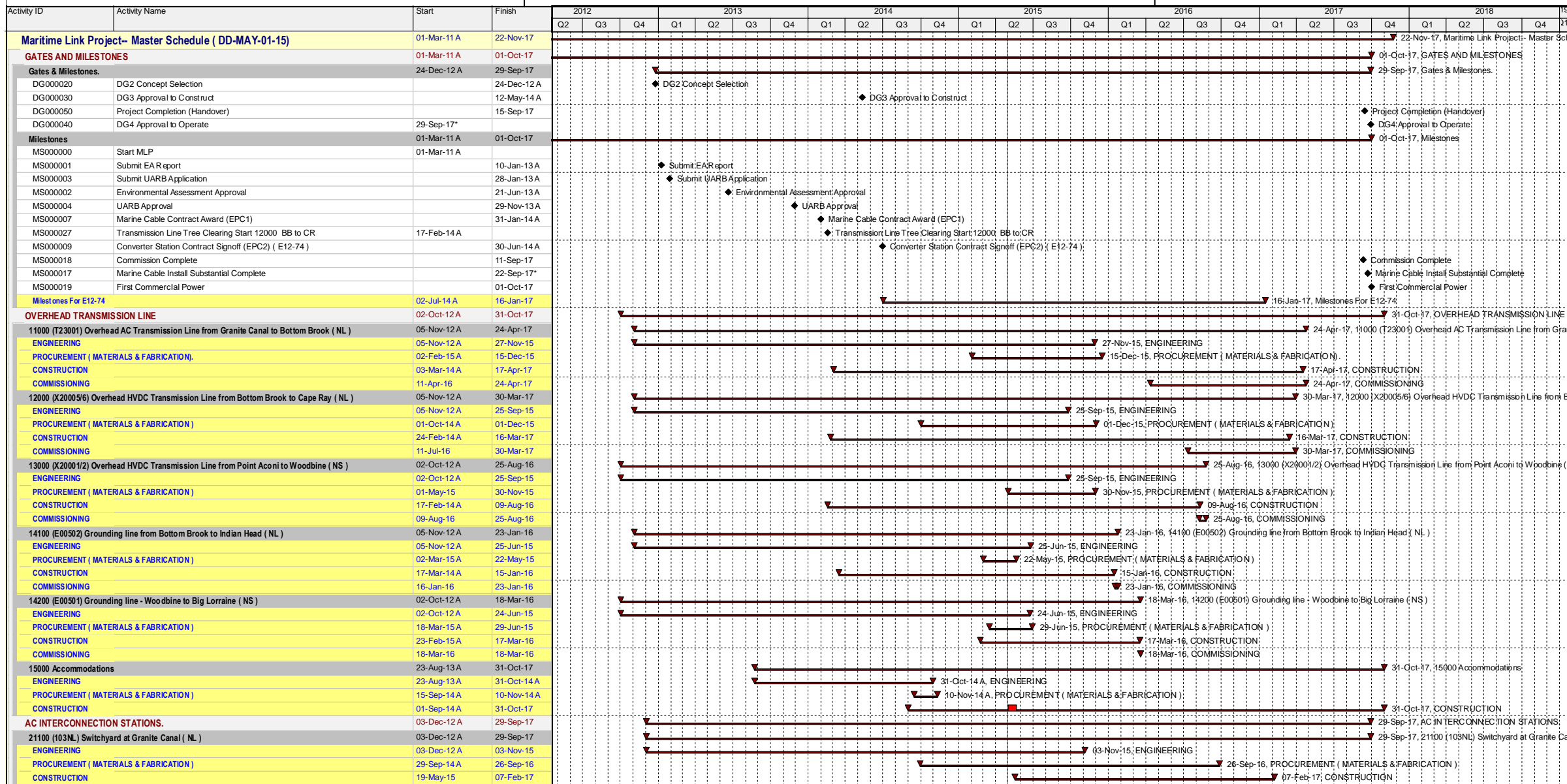
Maritime Link Project Level 1 Project Schedule

Project Level 1 Schedule



Schedule Date - March 31, 2015

MARITIME LINK PROJECT SCHEDULE AS OF JUNE 15, 2015



█ Remaining Level of Effort
 █ Actual Work
 █ C...
█ Actual Level of Effort
 █ Remaining Work
 ◆ ◆ Mi...

SCHEDULE "Q"

DRAW CONFIRMATION CERTIFICATE BY INDEPENDENT ENGINEER

ML PROJECT FINANCING

This Draw Confirmation Certificate is provided by MWH Canada, Inc. (the "Independent Engineer") to The Toronto-Dominion Bank (the "Collateral Agent") in connection with the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and the Collateral Agent (said agreement, as same may be amended, supplemented or restated from time to time, is hereinafter referred to as the "ML Credit Agreement"). Capitalized terms used in this Draw Confirmation Certificate not defined herein shall have the meanings assigned to them in Exhibit A of the ML Credit Agreement.

The Independent Engineer has (i) discussed matters believed pertinent to this Draw Confirmation Certificate with the Borrower and any relevant Material Project Participants, (ii) made such other inquiries as we have determined appropriate and (iii) reviewed:

- (a) the Construction Report dated May 20, 2015 (the "Construction Report"); and
- (b) the Borrower's funding request dated May 21, 2015 (the "Funding Request").

On the basis of the foregoing limited review procedures and on the understanding and assumption that the factual information contained in the Construction Report and Funding Request is true, correct and complete in all material respects, the Independent Engineer makes the following statements in favour of the Collateral Agent and to the best of its knowledge, information and belief, as of the date hereof that:

1. Construction of the Project is progressing in a satisfactory manner and in accordance with the terms of the applicable Material Project Documents with the following exceptions:

NO EXCEPTIONS NOTED

2. All payments to the Material Project Participants to be paid with the proceeds of the ML Construction Loan (including any payments using advances from the Working Capital Reserve Account during the period from the last Draw Confirmation Certificate to this Draw Confirmation Certificate) requested to be made pursuant to the Funding Request are allowed under the payment terms of the applicable Material Project Documents and the ML Credit Agreement as to the advance requirements of Section 7.3, with the following exceptions:

NO EXCEPTIONS NOTED

3. Assuming the Borrower exercises proper engineering and construction management throughout the remainder of the Project, we have no reason to believe that the

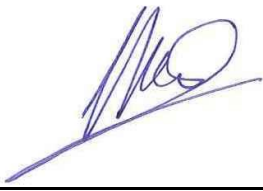
Commissioning Date will not occur prior to the Date Certain, or that the total Project Costs will exceed [\$1,577,354,028] with the following exceptions:

NO EXCEPTIONS NOTED

This Draw Confirmation Certificate is solely for the information and assistance of the Collateral Agent, the Lender and Canada in connection with the Funding Request and shall not be used, circulated or relied upon for any other purpose or by any other party.

Dated: May 25, 2015

MWH CANADA, INC.

By:  _____

Title: Principal Engineer