
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 Regulations, N.S. Reg. 189/2012*

NSPML Quarterly Report

December 13, 2013

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1 **1.0 INTRODUCTION**

2
3 This is the first of the quarterly reports that NSPML will file with the Utility and Review
4 Board (UARB), as directed in the UARB’s Decisions regarding the Maritime Link.

5
6 In its Decision dated July 22nd, 2013, the Board agreed with Enerco’s reporting
7 recommendations, and directed as follows:

8
9 [405] Enerco, in Undertaking U-31, recommended filing of various reports
10 by NSPML during the design and construction phase of the ML Project. The
11 Board has reviewed Enerco’s recommendations and generally agrees that
12 given the size of the ML Project and that the final engineering design and
13 tender awards are not completed, it is appropriate for NSPML to provide
14 regular reports to the Board.

15
16 [406] NSPML, in its Closing Brief, also agreed with Enerco’s
17 recommendations. However, NSPML suggested that before the Board
18 finalizes its reporting requirements, it would like to meet with Board staff to
19 better understand the information being requested. The Board agrees this
20 would be an efficient process. The information noted above by NSPML at
21 pages 56-57 of its Closing Brief could form the basis for the discussion. The
22 Board directs that it receive reports no later than June 15th and December 15th
23 of each year, unless otherwise directed by the Board. As noted earlier, the
24 Board believes independent engineering reports will be critical to keeping the
25 Board informed. The Board expects this consultation process to be carried
26 out expeditiously and Board staff is to report back to the Board for approval
27 of the reporting requirements by October 15, 2013.

28
29 NSPML Regulatory staff met with UARB staff on September 25, 2013 to reach agreement
30 on reporting conditions.

31 NSPML’s Compliance Filing, filed October 21, 2013, referred to the UARB Condition as
32 follows:

1 **Condition:**

2 4. NSPML will file regular update reports with the UARB on June 15 and
3 December 15 of each year, as well as other oversight requirements which
4 will be fully established following discussions between NSPML and UARB
5 staff about the details.

6 **Response:**

7 NSPML agrees and accepts this condition. NSPML met with UARB staff on
8 September 25 and we are in agreement about the nature and timing of these
9 requirements. UARB staff undertook to report to the UARB prior to October
10 15 as directed.

11
12 On November 8, 2013, the UARB filed a Memorandum confirming NSPML’s intent to
13 provide regular reporting updates.

14
15 Additionally, the UARB ordered the following in its Supplemental Decision:

16
17 [115]....detailed reports must be filed by NSPML on a semi-annual basis, on June
18 15 and December 15 each year. The reports shall commence December 15, 2013.
19 Updated status reports must be filed quarterly.

20
21 [116] NSPML’s Decision Gate 3 report must be filed by December 15, 2013

22
23 [117] All items identified in Enerco’s Undertaking U-31 will be included in
24 NSPML’s reports, as amended to reflect the latest updated project schedule: see the
25 revised Articles 3.1-3.3 in Exhibit M-141.

26
27 As detailed in Enerco Undertaking 31, this report will provide updates on the following:

- 28 1) Design and construction
- 29 • An updated quarterly schedule (as per Enerco U-31, item 1.1)
 - 30 • A short explanation of any variance from the previous quarter affecting
31 any of the line items in the quarterly schedule (as per Enerco U-31, item
32 1.2)

- 1 • A short status report for key activities (as per Enerco U-31, item 1.3),
- 2 and as per the *Maritime Link Cost Recovery Process Regulations*, s. 7
- 3 (2) (a).
- 4 • An updated detailed semi-annual schedule, based on the 8-page MLP
- 5 Summary Schedule of Enerco IR- 8, Attachment 1 (as per Enerco U-31,
- 6 item 1.4)

7 2) Construction Cost Summary

- 8 • An updated cost summary, based on the financial table (reference
- 9 Enerco IR-25, Attachment 1, page 12), but extended to the end of the
- 10 construction period, including commissioning. This is based on Decision
- 11 Gate 3 costs (as per the *Maritime Link Cost Recovery Process*
- 12 *Regulations*, s. 7 (2) (b)).
- 13 • A project cost flow based on the “MLP 2013 Cost Flow (reference
- 14 Enerco IR-25 Attachment 1 page 13), extended to the end of the
- 15 construction and commissioning period, showing the total anticipated
- 16 cost.

17 3) Significant Updates since Application

- 18 • As per *Maritime Link Cost Recovery Process Regulations*, s. 7 (2) (c)

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 Level
4 1 Project Schedule, along with a variance explanation and general status updates.

5

6 Please refer to Attachment 1 for the Project Schedule.

7

8 **2.1 Commercial Activities**

9

10 Key commercial activities are captured through the project work breakdown structure
11 (WBS), which outlines subcategories of work required to fulfill the design and operational
12 objectives of the Maritime Link. In addition to each WBS, there are commercial initiatives
13 which include specific work scopes or multiple scopes of similar types of work that are
14 present within more than one WBS. These initiatives are then numbered for each
15 commercial activity, such as tree clearing or submarine cable supply and installation.

16

17 Please refer to Attachment 3 for the schedule of commercial activities (initiative numbers)
18 which are in progress or planned for the coming six month period. Within the schedule, the
19 initiative number, description, expected market solicitation process and steps as well as
20 target dates are represented. The target dates are coordinated with the Project Schedule and
21 updated periodically as necessary.

22

23 The key major commercial activities that are currently active are outlined in Table 1 below.

Table 1

Commercial Activity	Status	Initiative Number
HVDC Submarine Cable Supply and Installation	Evaluation complete, Contract award pending approval	E11-88
Converter stations, switchyards and related structures (“converters and structures”)	Proponents’ evaluation in progress, contract award forecasted for Q1/Q2, 2014	E12-74
Right of Way Clearing along Transmission Lines	Proponents evaluation in progress, contract award forecasted for Q1, 2014	E13-88
Transmission Structures and Grillages	Proponents evaluation in progress, contract award forecasted for Q1, 2014	E13-85
Site Preparation Services (Includes construction of access road upgrades)	RFP issued in Q4 2013, contract award forecasted for Q2, 2014	E13-92
Transmission Line Construction	RFP issued in Q4 2013, contract award forecasted for Q3, 2014	E13-95
Transmission Line Conductors	RFP to be issued in Q1, 2014, contract award forecasted for Q3, 2014	E13-87
HDD Construction Program	RFP to be issued Q4, 2014 with contract award forecasted for Q2, 2015	E13-137

Accommodations	RFP to be issued in Q1, 2014, contract award forecasted for Q3, 2014	E13-89
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2.1.1 Land Access Agreements

NSPML has been engaged with landowners identified along the main transmission routes in Nova Scotia and Newfoundland and Labrador (“NL”) since early in 2013. Open house activities in both provinces have been completed and will be scheduled again to update landowners as the project progresses, including the communication of grounding line location and grounding site updates.

Documentation for land and submarine access rights required from the provincial and federal governments have been attained.

In Nova Scotia, NSPML has identified the affected landowners along the primary HVDC transmission route from Point Aconi to Woodbine, and along the grounding line from Woodbine to Big Lorraine. NSPML is currently in negotiations or has completed agreement with landowners to allow access to their lands and ultimately secure right of way requirements to complete the project.

In Newfoundland, NSPML has identified the affected private property landowners and discussions are ongoing regarding the primary HVDC and HVAC routes.

Land acquisition activities are progressing and align with the scheduled start of tree clearing activities.

2.1.2 Funding – Schedule Reserve and Allowances

The conditions that must be satisfied in order for the Maritime Link Project to receive the Federal Loan Guarantee (“FLG”) are described in Section 3.5 of the Federal Loan Guarantee Agreement dated November 30, 2012 between the Governments of Canada

1 (“Canada”), Nova Scotia (“NS”) and NL, and Nalcor and Emera (the “FLG Agreement”;
2 please refer to Appendix 4.03 of the Maritime Link Project Application). NS recently
3 executed an agreement with Canada under which NS agrees to indemnify Canada for any
4 costs incurred under the FLG as a result of certain regulatory changes. This agreement
5 satisfied the condition in Section 3.5 A(vi) of the FLG Agreement. Emera recently
6 executed: (i) a Payment Obligation Agreement providing for payment of \$60 million by
7 Emera to Canada if the milestone dates for “Financial Close” (as defined in the FLG
8 Agreement) and for the advance of FLG-guaranteed debt are not met, and (ii) a Completion
9 Guarantee for the ML Project. These agreements satisfied the condition in Section 3.5
10 A(viii) of the FLG Agreement. Canada has now confirmed to NSPML that all of the
11 conditions in Section 3.5 A of the FLG Agreement have been satisfied. NSPML continues
12 to work to satisfy the conditions in Section 3.5 B of the FLG Agreement, including
13 negotiation and execution of the documentation required for Financial Close. NSPML
14 expects to achieve Financial Close no later than mid-March, 2014.

16 **2.1.3 Joint Development Agreements**

17
18 The original agreements were completed and signed on July 30, 2012.

19
20 The Sanction Agreement dated December 17, 2012 between Emera and Nalcor amended
21 certain of the original Commercial Agreements concerning the ML Project to which Emera
22 and Nalcor are party. The Sanction Agreement also contemplated (but did not require) that
23 formal amendments would be made to those Commercial Agreements to reflect the terms of
24 the Sanction Agreement. The Agreements have not been amended at this time.

26 **2.2 Engineering Activities**

27
28 Commissioning of the Maritime Link aligns with the in-service Decision Gate 3 (DG3)
29 target date of October 1, 2017. This schedule reflects the submarine cable supply
30 availability and installation optimization. Engineering is captured in three main categories
31 across several WBS's:

- 1 • HVDC Submarine Cable Supply and Installation – cable design and manufacture is
2 being engineered by the supplier of the cable and will include acceptance by
3 NSPML of performance criteria consistent with service life and reliability targets
4 required by NSPML. The horizontal directional drilled (HDD) bore trajectories are
5 being designed under a separate engineering contract which is presently under
6 negotiation with work to commence in Q1, 2014. The interface criteria requirements
7 of the cable within the boreholes has been identified within the cable supply
8 contract.
9
- 10 • HVDC converter and structure engineering is included in the commercial initiative
11 for supply and installation of these assets which is presently under commercial and
12 technical evaluation. Civil site requirements and shoreline grounding facilities are
13 being engineered and work completed outside the scope of the main contract.
14
- 15 • Overland transmission and grounding site engineering is being completed under a
16 separate engineering design service agreement. The design of steel lattice tower
17 configurations is being completed under the transmission structures and grillages
18 supply contract which is presently under commercial and technical evaluation.
19

20 **2.3 Submarine Cables (Marine)**

21
22 NSPML has selected Mass Impregnated (MI) cable for the Maritime Link and is moving
23 forward with the design, supply and installation, and testing and commissioning of the two
24 submarine cables and land cables. Design will be initiated upon completion of contract
25 terms.

26
27 The installation is planned to commence in Q2, 2017 and be completed by Q3, 2017 based
28 upon the preferred technology availability.

1 **2.4 Converter Stations**

2
3 The installation date was extended to accommodate an increased scope to include the
4 converter stations as well as 3 substations. These components are expected to be completed
5 by Q3 2017 pending award and start of detailed design in 2014.

6
7 The technical specification for the Converter and structures has been completed and the RFP
8 for the Converter and structures EPC contract has been issued and closed. Technical and
9 commercial evaluation of proposals is currently in progress.

10

11 **2.5 Construction Contractor – Transmission Lines**

12
13 Commencement of transmission line construction is scheduled for Q4, 2014 to allow for the
14 completion of activities to attain geotechnical information required for the design and
15 development of the transmission structures, procurement processes and land-owner
16 engagement. Line routes have been established and geotechnical investigations are now
17 completed. Line design is in progress and Request for Proposals (RFPs) for the steel
18 structure and grillages have been issued and closed and the evaluation of proposals is in
19 progress.

20

21 **2.6 Construction Contractor – Compounds/Other**

22
23 NSPML has finalized the grounding site locations with Big Lorraine being chosen in Nova
24 Scotia and Indian Head, St. Georges Bay in NL. Geotechnical evaluation of the sites is
25 underway to allow for detailed design to be completed. The scope of work is being
26 developed for all site preparation and will be incorporated in a commercial initiative for
27 release to market through an RFP early in 2014.

28

29 Grounding line routes for both Nova Scotia and NL have been established. Geotechnical and
30 land survey has been completed with design currently in progress.

1 Conceptual design of the telecommunication system in both Nova Scotia and NL has been
2 completed, and detailed design is in progress. The telecommunication system is required for
3 Maritime Link protection and control systems and to manage energy flows. The converter
4 stations will typically be operated remotely from NS Power and Newfoundland and
5 Labrador Hydro control centers in Halifax and St. John's. Redundant communication paths
6 are required to meet system reliability criteria.

7
8 As well, site preparation civil design for the switching stations is in progress for
9 construction sites in both Nova Scotia and NL.

3.0 UPDATED COST SUMMARY

As per Enerco U-31, section 2.1, and as per section 7 of the *Maritime Link Cost Recovery Regulations* the detail below outlines the DG3 forecasted costs.

Table 2 below provides an update on actual spending on the Maritime Link to the end of Q3, 2013 as well as a forecast spend for Q4, 2013 and the 2014 – 2017 period totaling the DG3 project capital cost estimate of \$1.577 billion, which is within the \$1.4 to \$1.7 billion range as outlined in NSPML’s Application of January 28, 2013. More details on the DG3 capital cost estimate are provided below.

Explanatory notes are listed below the table.

Table 2

	Actual Spend 2011 and 2012	Actual Spend + Q4 Forecast 2013	Forecast 2014-2017	Total DG3
AC and DC transmission	\$ 2,481	\$ 13,852	\$ 292,037	\$ 308,370
Converters , Structures, and other Ancillary Equipment		8,540	565,919	574,459
Submarine and related	2,716	8,271	295,220	306,207
Project management and other	21,571	46,937	145,456	213,964
	\$ 26,768	\$ 77,600	\$ 1,298,632	1,403,000
Add: Escalation and Contingency				174,354
Total DG3 Capital Cost Estimate				\$1,577,354

Notes:

1. In response to Enerco IR-25, NSPML provided a 2013 Budget of \$74.5 million. The 2013 actual and forecasted spending for 2013 is now forecasted at \$77.6 million. The difference relates to costs that were originally budgeted in 2012 being deferred to 2013.
2. “AC and DC transmission” include the HVAC transmission line in NL, the HVDC transmission lines in NL and NS as well as grounding lines in NL and NS.

3. “Converters, structures, and other ancillary equipment” includes the supply and installation of a converter station in NS, a converter station in NL, three switchyards, three transition compounds, shoreline grounding facilities, ancillary equipment as well as other necessary infrastructure including site civil development.
4. “Submarine and related” includes the supply and installation of two submarine Mass Impregnated cables across the Cabot Strait as well as Horizontal Directional Drilling and related works.
5. “Project management and other” includes project team costs, environmental assessment and monitoring, legal, regulatory, insurance and land activities.

DG3 Capital Cost Estimate

As noted above, NSPML has updated the Maritime Link capital cost estimate at DG3.

A summary of the DG3 capital cost estimate as compared to Decision Gate 2 is provided below:

Table 3

<u>Major Activity</u>	<u>Capital Cost Estimate at DG3</u>	<u>Capital Cost Estimate at DG2</u>	<u>Delta</u>
AC and DC transmission	\$ 308,370	\$ 301,709	\$ 6,661
Converters, Structures, and other Ancillary Equipment	574,459	384,156	190,303
Submarine and related	306,207	280,949	25,258
Project management and other	213,964	205,472	8,492
	1,403,000	1,172,286	230,714
Add: Escalation and Contingency	174,354	216,206	(41,852)
Total Capital Cost Estimate	\$ 1,577,354	\$ 1,388,492	\$ 188,862

The Decision Gate 3 capital cost estimate is based upon market responses to Request for Proposals on the Submarine cables contract and Converter and structure contracts, plus market RFP responses on Right of way clearing and Transmission towers and grillages costs. Consequently, the Decision Gate 3 capital cost estimate is based upon market pricing for approximately 50 percent of the estimated cost of the Maritime Link and thus has a

1 higher degree of confidence than the estimate at Decision Gate 2 due to market based
2 pricing which is now secured.

3
4 The market based cost of the major electrical components and installation costs resulted in
5 the largest increase from Decision Gate 2.

6
7 As outlined in the Application, the estimated capital cost of the Maritime Link is added to
8 the estimated capital cost of the Nalcor lead projects (Muskrat Falls, Labrador Transmission
9 Assets and Labrador-Island Link) and Nova Scotian customers will pay 20 percent of the
10 total. Twenty percent of that total is \$1.5554 billion as outlined below:

12	Total Nalcor Decision Gate 3 capital cost estimate:	\$6.20 billion
13	Maritime Link Decision Gate 3 capital cost estimate:	\$1.577 billion
14	Total:	\$7.777 billion
15		
16	20 percent of total	\$1.5554 billion

17
18 This updated capital cost estimate is within the UARB approved range of \$1.52 to \$1.58
19 billion.

20
21 As part of finalizing the Maritime Link Decision Gate 3 capital cost estimate, Emera and
22 Nalcor agreed to await the outcome of actual costs in respect of currently estimated cost
23 components. The parties have agreed that Nalcor will be responsible for any difference
24 between the \$1.5554 billion (being 20 percent of the total estimated capital cost estimates)
25 and the final actual capital costs of the Maritime Link, up to \$1.577 billion. Any such
26 adjustment will be payable by Nalcor no later than 30 days after the actual capital costs of
27 the Maritime Link are finally determined. Any actual capital costs of the Maritime Link in
28 excess of the \$1.577 billion shall be dealt with in accordance with the provisions of the
29 Maritime Link Joint Development Agreement. As a result, the 20 For 20 True Up
30 calculation has not resulted in a payment by either party, at this time, pending determination
31 of actual costs on the Maritime Link. Any change in cost of the Nalcor lead projects do not
32 impact Nova Scotia customers.

1 **4.0 COST FLOW**

2

3 As per Enerco U-31, section 2.2, please refer to Attachment 2 for the cost flow until the

4 Maritime Link is commissioned. The cost flow in this attachment provides a base capital

5 spending forecast of \$1.403 billion. Escalation and contingency in the amount of \$174

6 million will be allocated to appropriate accounts when necessary to account for expenditures

7 associated with project risks. The total of the base capital spending and the escalation and

8 contingency amounts to \$1.577 billion.

1 **5.0 DETAILED SCHEDULE**

2

3 As per Enerco U-31, section 1.4, please refer to Attachment 3 for a detailed schedule.

1 **6.0 SIGNIFICANT UPDATES SINCE APPLICATION**

2

3 As per the *Maritime Link Act Regulations*, section 7(2) (c), this section details material
4 decisions that have been made since the original Application for approval was filed.

5

6 **6.1 Selection of Cable**

7

8 As noted in section 2.3 above, NSPML has selected the MI cable as it is the most proven
9 submarine cable technology that has been in-service for over 40 years, and will be the most
10 cost effective solution for the Maritime Link project.

11

12 **6.2 Grounding Site Selection**

13

14 As described in section 2.6 above, the grounding sites, which were outstanding during the
15 hearing process, have now been selected.

16

17 Grounding sites were chosen through an evaluation of multiple technical and environmental
18 considerations.

19 These considerations included:

- 20 • Depth of Water
- 21 • Water Salinity
- 22 • Soil Resistivity and Ground Potential Rise
- 23 • Accessibility
- 24 • Wave Shelter
- 25 • Environmental Impact
- 26 • Feasibility of Grounding Line Routing

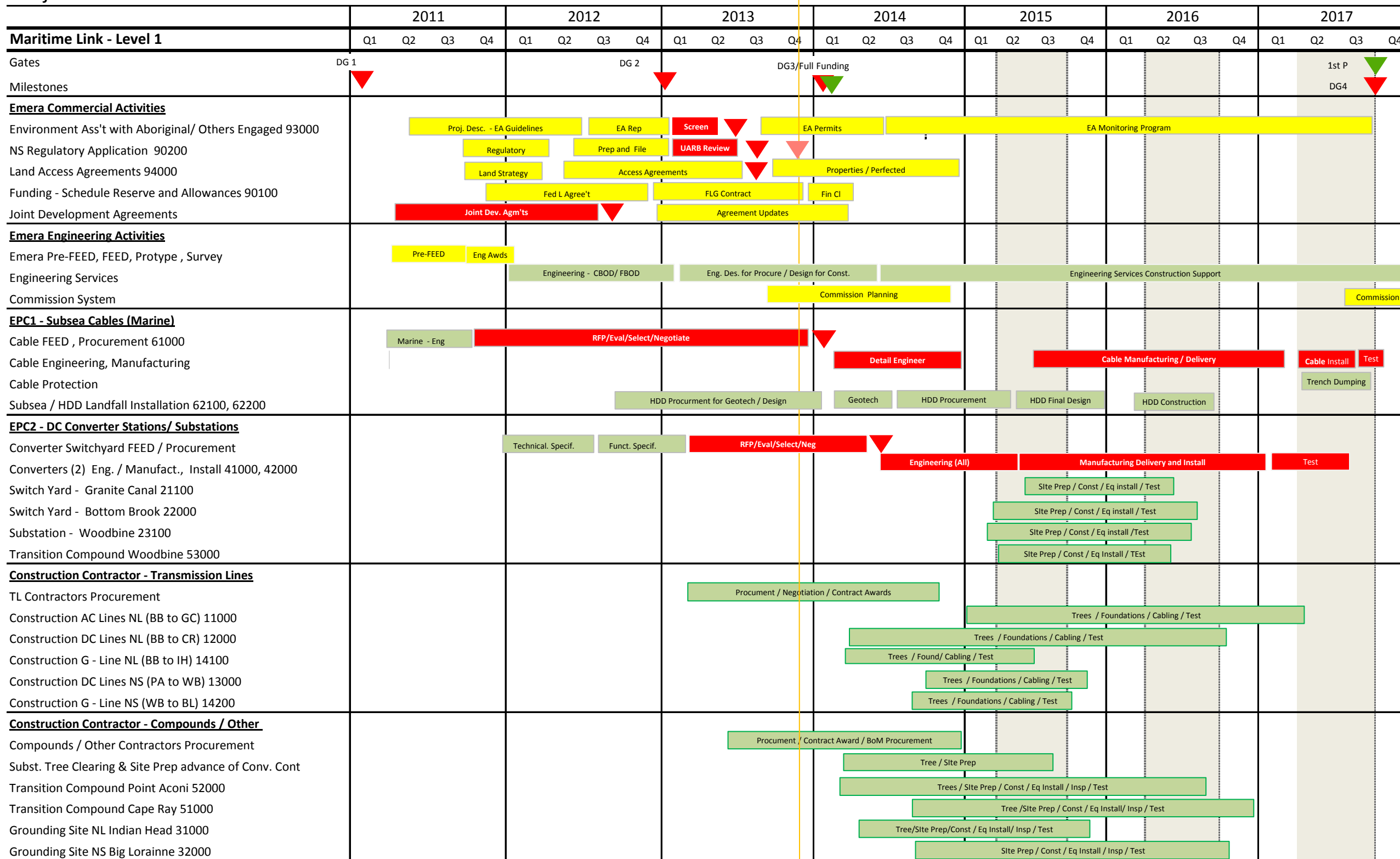
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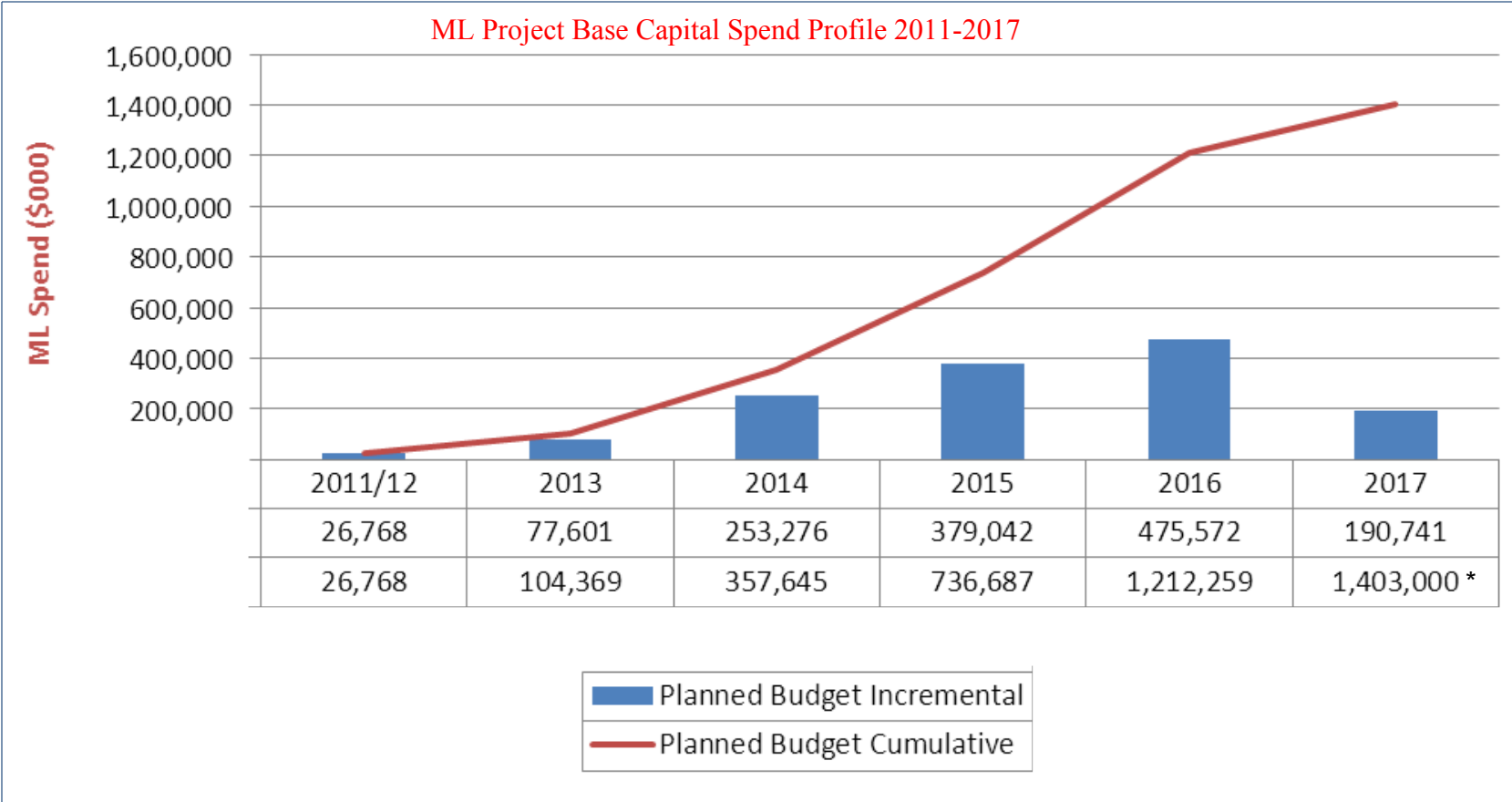
- 1 The chosen sites satisfied the technical requirements while minimizing the environmental
- 2 impact.

Level 1 Schedule

Nov

Project Level 1 Schedule





* Note: The \$1.403 billion represents base capital spending. Escalation and contingency of \$174 million will be allocated to appropriate accounts when necessary to account for expenditures associated with project risks. Base capital spending plus escalation and contingency amounts to \$1.577 billion.

Activity ID	Activity Name	Start	Finish	2013				2014				2015				2016				2017				2018
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Maritime Link Project				04-Oct-17, Ma																				
Gates & Milestones				04-Oct-17, Ga																				
Gates				04-Oct-17, Ga																				
DG000020	DG2 Conceptual	20-Dec-12 A		2 Conceptual																				
DG000030	DG3 Execution	03-Feb-14*		◆ DG3 Execution																				
DG000040	DG4 Commission	02-Oct-17*																						
DG000050	Project Completion (Handover)		04-Oct-17																					
Milestones				04-Oct-17, Mil																				
MS000000	Start MLP	01-Mar-11 A																						
MS000001	Submit EA Report		10-Jan-13 A	Submit EA Report																				
MS000003	Submit UARB Application		28-Jan-13 A	Submit UARB Application																				
MS000002	Environmental Assessment Approval		21-Jun-13 A	◆ Environmental Assessment Approval																				
MS000004	UARB Approval		22-Jul-13 A	◆ UARB Approval																				
MS000007	Marine Cable Contract Award (EPC1)		31-Dec-13	◆ Marine Cable Contract Award (EPC1)																				
MS000027	Transmission Line Tree Clearing Start 12000 BB to CR		11-Mar-14	◆ Transmission Line Tree Clearing Start 12000 BB to CR																				
MS000009	Converter Station Contract Signoff (EPC2)		11-Jun-14	◆ Converter Station Contract Signoff (EPC2)																				
MS000017	Marine Cable Install Complete & Demobilization Start		29-Jun-17	◆ Marine Cable Install Co																				
MS000018	Commission Complete		03-Oct-17	◆ Commission C																				
MS000019	First Commerical Power		04-Oct-17	◆ First Commer																				
11000 (T23001) Overhead AC Transmission Line from Granite C...				05-Nov-12 A 25-May-17 25-May-17, 11000 (T2300																				
Engineering				05-Nov-12 A 26-Jan-15 26-Jan-15, Engineering																				
Procurement (Materials & Fabrication)				04-Apr-14 01-Jul-15 01-Jul-15, Procurement (Materials & Fabrication)																				
Construction				28-Apr-14 08-Apr-17 08-Apr-17, Construction																				
T23001 Commissioning				09-Apr-17 25-May-17 25-May-17, T23001 Comr																				
12000 (X20005/6) Overhead HVDC Transmission Line from Botto...				05-Nov-12 A 28-Oct-16 28-Oct-16, 12000 (X20005/6) Overhead HV																				
Engineering				05-Nov-12 A 11-Aug-14 11-Aug-14, Engineering																				
Procurement (Materials & Fabrication)				04-Apr-14 25-Feb-15 25-Feb-15, Procurement (Materials & Fabrication)																				
Construction				11-Mar-14 12-Sep-16 12-Sep-16, Construction																				
Commissioning				12-Sep-16 28-Oct-16 28-Oct-16, Commissioning																				
13000 (X20001/2) Overhead HVDC Transmission Line from Point...				02-Oct-12 A 13-Jan-16 13-Jan-16, 13000 (X20001/2) Overhead HVDC Transmission Line from																				
Engineering				02-Oct-12 A 26-Sep-14 26-Sep-14, Engineering																				
Procurement (Materials & Fabrication)				04-Apr-14 25-Feb-15 25-Feb-15, Procurement (Materials & Fabrication)																				
Construction				17-Apr-14 01-Dec-15 01-Dec-15, Construction																				
Commissioning				02-Dec-15 13-Jan-16 13-Jan-16, Commissioning																				
14100 (E00502) Grounding line from Bottom Brook to Indian Head				05-Nov-12 A 06-Jul-15 06-Jul-15, 14100 (E00502) Grounding line from Bottom Brook to Indian Head																				
Engineering				05-Nov-12 A 04-Apr-14 04-Apr-14, Engineering																				
Procurement (Materials & Fabrication)				04-Apr-14 30-Jul-14 30-Jul-14, Procurement (Materials & Fabrication)																				
Construction				11-Mar-14 15-Mar-15 15-Mar-15, Construction																				
Commissioning				14-Apr-15 06-Jul-15 06-Jul-15, Commissioning																				
14200 (E00501) Grounding line - Woodbine to Big Lorraine				02-Oct-12 A 01-Oct-15 01-Oct-15, 14200 (E00501) Grounding line - Woodbine to Big Lorraine																				
Engineering				02-Oct-12 A 04-Apr-14 04-Apr-14, Engineering																				
Procurement (Materials & Fabrication)				04-Apr-14 28-Aug-14 28-Aug-14, Procurement (Materials & Fabrication)																				
Construction				28-Aug-14 12-Aug-15 12-Aug-15, Construction																				
Commissioning				12-Aug-15 01-Oct-15 01-Oct-15, Commissioning																				
21100 (103NL) Switchyard at Granite Canal				03-Dec-12 A 02-May-17 02-May-17, 21100 (103NL)																				
Engineering				03-Dec-12 A 02-May-17 02-May-17, Engineering																				

Remaining Level of Effort
 Remaining Work
 Critical Remaining ...
 Actual Work
 Milestone
 Summary



Activity ID	Activity Name	Start	Finish	2013				2014				2015				2016				2017				2018	
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
	Engineering	01-Oct-12 A	08-Jul-15																						
	Procurement (Materials & Fabrication)	13-Apr-15	29-Sep-16																						
	Construction	21-Oct-14	14-Mar-17																						
	Commissioning	15-Mar-17	14-Jul-17																						
	51000 (701NL) Overhead to Underground Transition Compound ...	28-Jan-13 A	23-Dec-16																						
	Engineering	28-Jan-13 A	02-Jul-15																						
	Construction	30-Aug-14	01-Jun-16																						
	Commissioning	02-Jun-16	23-Dec-16																						
	52000 (701NS) Overhead to Underground Transition Compound ...	08-Oct-12 A	23-Dec-16																						
	Engineering	08-Oct-12 A	02-Jul-15																						
	Construction	11-Mar-14	01-Jun-16																						
	Commissioning	02-Jun-16	23-Dec-16																						
	53000 (702NS) Woodbine Transition Compound	29-Nov-13	27-Sep-16																						
	Engineering	29-Nov-13	29-Dec-14																						
	Procurement (Materials & Fabrication)	29-Dec-14	17-Jul-15																						
	Construction	11-Mar-14	31-May-16																						
	Commissioning	01-Jun-16	27-Sep-16																						
	55000 Telecommunication Links	03-Dec-12 A	29-Jun-16																						
	Engineering	03-Dec-12 A	18-Feb-14																						
	Procurement (Materials & Fabrication)	17-Feb-14	13-May-14																						
	Construction	03-Nov-14	18-May-16																						
	Commissioning	19-May-16	29-Jun-16																						
	56000 Control Center Data Link	29-Nov-13	17-Oct-16																						
	Engineering	29-Nov-13	17-Oct-16																						
	58000 Improvement of Access Road Infrastructure (E13-92)	22-May-14	26-Oct-14																						
	Construction	22-May-14	26-Oct-14																						
	61000 Submarine Cable, Land Cable, and Terminations	06-Jun-11 A	29-Sep-17																						
	61100 Engineering	06-Jun-11 A	29-Sep-17																						
	61200 Manufacturing	14-Dec-15	04-Apr-17																						
	61300 Submarine Cable Installation	12-Apr-17	27-Jul-17																						
	61400 Transportation	22-Mar-17	21-May-17																						
	61500 Submarine Cable Protection (Trenching)	15-May-17	29-Aug-17																						
	61600 Rock dumping	27-Jul-17	07-Sep-17																						
	61700 Land Cable Installation (Terminations/Anchor Site Construction)	03-Mar-17	31-Aug-17																						
	61800 Testing & Commissioning Program	23-Aug-17	19-Sep-17																						
	62000 Landfall HDD	03-Sep-12 A	11-Sep-16																						
	62100 Landfall HDD Point Aconi, NS	03-Sep-12 A	11-Sep-16																						
	Topographical Survey	03-Sep-12 A	30-Dec-13																						
	Engineering	03-Feb-14	02-Jun-15																						
	HDD Geotech Investigation and Design	15-Jan-14	11-Sep-16																						
	Landfall Construction	29-Nov-13	11-Sep-16																						
	62200 Landfall HDD Cape Ray, NL	26-Jul-13 A	04-Jul-16																						
	Topographical Survey	27-Jul-13 A	11-Aug-13 A																						
	Engineering	03-Feb-14	11-Feb-14																						
	HDD Geotech Investigation and Design	03-Feb-14	04-Jul-16																						
	Landfall Construction	26-Jul-13 A	03-Jul-16																						

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63000 Marine Consultancy Services		17-Aug-12 A	02-Oct-17	02-Oct-17, 63000 Marine Consultancy Services																				
63100 Marine Warranty Survey Services		20-Jan-16	02-Oct-17	02-Oct-17, 63100 Marine Warranty Survey Services																				
63200 Third Party Engineering Verification Services		20-Jan-15	02-Oct-17	02-Oct-17, 63200 Third Party Engineering Verification Services																				
63300 Engineering Studies (finalize cable protection studies, design rock berm, ...)		17-Aug-12 A	06-May-14	06-May-14, 63300 Engineering Studies (finalize cable protection studies, design rock berm, etc.)																				
90100 Project Management		15-Mar-11 A	01-Jun-17	01-Jun-17, 90100 Project Management																				
ENL Finance		29-Nov-13	07-Feb-14	07-Feb-14, ENL Finance																				
DG3 Deliverables		21-Jan-13 A	03-Feb-14	03-Feb-14, DG3 Deliverables																				
Project Controls		04-Mar-13 A	28-May-14	28-May-14, Project Controls																				
Project Cost System Implementation		09-Jan-14	28-May-14	28-May-14, Project Cost System Implementation																				
IM Implementation (Coreworx)		04-Mar-13 A	14-Feb-14	14-Feb-14, IM Implementation (Coreworx)																				
Integrated Commission Planning		18-Mar-13 A	31-Dec-13	31-Dec-13, Integrated Commission Planning																				
HS and S Program		04-Jun-12 A	27-Sep-13 A	27-Sep-13 A, HS and S Program																				
Quality Management Program		23-Sep-13 A	22-Feb-17	22-Feb-17, Quality Management Program																				
Purchasing (Contracts)		15-Mar-11 A	09-Jun-15	09-Jun-15, Purchasing (Contracts)																				
Marine EPC 1		15-Mar-11 A	14-Jan-14	14-Jan-14, Marine EPC 1																				
Marine		15-Jun-12 A	09-Jun-15	09-Jun-15, Marine																				
Marine 3rd Party Engineering Verification Services E13-155		04-Nov-13 A	26-Nov-14	26-Nov-14, Marine 3rd Party Engineering Verification Services E13-155																				
Marine Warranty Services E12-75		05-Nov-12 A	19-Jan-15	19-Jan-15, Marine Warranty Services E12-75																				
HDD Geotech and Detail Design Program E12-51		15-Jun-12 A	06-Jan-14	06-Jan-14, HDD Geotech and Detail Design Program E12-51																				
HDD Construction Program E13-137		16-May-14	09-Jun-15	09-Jun-15, HDD Construction Program E13-137																				
Converter Stations (EPC2) E12-74		09-Oct-12 A	11-Jun-14	11-Jun-14, Converter Stations (EPC2) E12-74																				
Land Assets		18-Jun-12 A	04-Sep-14	04-Sep-14, Land Assets																				
E12-53 Geotech Study - Site Facility Investigations		18-Jun-12 A	19-Dec-12 A	19-Dec-12 A, E12-53 Geotech Study - Site Facility Investigations																				
E12-62 Engineering Services for Detail Design and Procurement		01-Oct-12 A	03-May-13 A	03-May-13 A, E12-62 Engineering Services for Detail Design and Procurement																				
E12-73 Survey Services - NS and NL		03-Dec-12 A	08-Nov-13 A	08-Nov-13 A, E12-73 Survey Services - NS and NL																				
E12-79 Geotech Study - TL Route Geotechnical Investigations		12-Nov-12 A	10-Apr-13 A	10-Apr-13 A, E12-79 Geotech Study - TL Route Geotechnical Investigations																				
E13-85 Transmission Structures and Grillage		04-Feb-13 A	17-Apr-14	17-Apr-14, E13-85 Transmission Structures and Grillage																				
E13-87 TL Conductors		18-Feb-13 A	03-Apr-14	03-Apr-14, E13-87 TL Conductors																				
E13-88 Right of Way Clearing Along Transmission Lines		11-Feb-13 A	14-Mar-14	14-Mar-14, E13-88 Right of Way Clearing Along Transmission Lines																				
E13-89 Accommodations		11-Mar-13 A	22-Apr-14	22-Apr-14, E13-89 Accommodations																				
E13-92 Site Prep Services (Includes Construction of Access Road Upgrades)		11-Feb-13 A	07-Apr-14	07-Apr-14, E13-92 Site Prep Services (Includes Construction of Access Road Upgrades)																				
E13-95 Transmission Line Construction		18-Feb-13 A	05-Aug-14	05-Aug-14, E13-95 Transmission Line Construction																				
E13-102 Grounding Site Breakwater Construction		25-Feb-13 A	04-Sep-14	04-Sep-14, E13-102 Grounding Site Breakwater Construction																				
E13-103 Grounding Site Technical Construction		11-Feb-13 A	16-Jul-14	16-Jul-14, E13-103 Grounding Site Technical Construction																				
E13-107 Transition Compound Construction (Includes Building and Services)		18-Feb-13 A	04-Jul-14	04-Jul-14, E13-107 Transition Compound Construction (Includes Building and Services)																				
Environment		22-Jun-11 A	24-Apr-14	24-Apr-14, Environment																				
Project Control Office		09-Jul-12 A	08-Jan-14	08-Jan-14, Project Control Office																				
Land Acquisition Services		29-Oct-12 A	22-Feb-13 A	22-Feb-13 A, Land Acquisition Services																				
Risk Assessments		09-Sep-13 A	19-Jan-17	19-Jan-17, Risk Assessments																				
Phase 3 Prior to DG3		09-Sep-13 A	30-Dec-13	30-Dec-13, Phase 3 Prior to DG3																				
Phase 4 Detailed Engineering (After DG3)		29-Nov-13	20-Oct-14	20-Oct-14, Phase 4 Detailed Engineering (After DG3)																				
Phase 4 Execution Phase Preparation (After DG3)		29-Nov-13	01-Apr-16	01-Apr-16, Phase 4 Execution Phase Preparation (After DG3)																				
Phase 4 Main Campaigns (Prior to DG4)		20-Jan-15	19-Jan-17	19-Jan-17, Phase 4 Main Campaigns																				
Construction Management		06-Aug-13 A	01-Jun-17	01-Jun-17, Construction Management																				
90200 External Services		04-Jan-12 A	29-Aug-14	29-Aug-14, 90200 External Services																				
Legal Services		25-Jun-12 A	29-Aug-14	29-Aug-14, Legal Services																				
NL Legal Materials/Agreements		25-Jun-12 A	26-Jul-12 A	26-Jul-12 A, NL Legal Materials/Agreements																				
Marine Route Access		29-Nov-13	31-Dec-13	31-Dec-13, Marine Route Access																				

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				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
	Records Retention Policy	02-Oct-12 A	31-Dec-12 A	Dec-12 A, Records Retention Policy																				
	Aboriginal Support and other agreements	07-Aug-12 A	27-Feb-14	27-Feb-14, Aboriginal Support and other agreements																				
	Exercise Land Options Easements / Fee Simples	04-Mar-13 A	29-Aug-14	29-Aug-14, Exercise Land Options Easements / Fee Simples																				
	Legal Exercise Options - NS	04-Mar-13 A	29-Aug-14	29-Aug-14, Legal Exercise Options - NS																				
	13000- X20001/2 - +/- 200 kV HVDC Overhead transmission line from PA to WB Conv...	29-Nov-13 A	29-Aug-14	29-Aug-14, 13000- X20001/2 - +/- 200 kV HVDC Overhead transmission line from PA to WB Converter Station																				
	14200 - E00501 - Grounding line from Woodbine Converter Station to Big Loraine	18-Aug-14	29-Aug-14	29-Aug-14, 14200 - E00501 - Grounding line from Woodbine Converter Station to Big Loraine																				
	61000 - NS Underground line from Anchor to Transition Compound	29-Nov-13 A	31-Jan-14	31-Jan-14, 61000 - NS Underground line from Anchor to Transition Compound																				
	23100 - 301NS - Connect 345 kV Substation at Woodbine to Converter Station	29-Nov-13	29-Aug-14	29-Aug-14, 23100 - 301NS - Connect 345 kV Substation at Woodbine to Converter Station																				
	23200 - 301NS - Extension of 345 kV Substation at Woodbine	29-Nov-13	29-Aug-14	29-Aug-14, 23200 - 301NS - Extension of 345 kV Substation at Woodbine																				
	42000 - 301NS - +/- 200 kV HVDC Woodbine Converter Station	04-Mar-13 A	31-Jan-14	31-Jan-14, 42000 - 301NS - +/- 200 kV HVDC Woodbine Converter Station																				
	52000 - 701NS - Overhead to Underground Transition Compound at Point Aconi	04-Mar-13 A	31-Jan-14	31-Jan-14, 52000 - 701NS - Overhead to Underground Transition Compound at Point Aconi																				
	52000 - 702NS - Overhead to Underground Transition Compound at Woodbine	04-Mar-13 A	31-Jan-14	31-Jan-14, 52000 - 702NS - Overhead to Underground Transition Compound at Woodbine																				
	61000 - NS HDD Landfall	04-Mar-13 A	31-Jan-14	31-Jan-14, 61000 - NS HDD Landfall																				
	61000 - NS Landfall Anchor	04-Mar-13 A	31-Jan-14	31-Jan-14, 61000 - NS Landfall Anchor																				
	32000 - 901NS - Grounding Site Nova Scotia	18-Aug-14	29-Aug-14	29-Aug-14, 32000 - 901NS - Grounding Site Nova Scotia																				
	Legal Access Agreement with NSPI on 7015 and Others	04-Mar-13 A	17-Feb-14	17-Feb-14, Legal Access Agreement with NSPI on 7015 and Others																				
	Legal Exercise Options - NL	07-Jan-14	29-Aug-14	29-Aug-14, Legal Exercise Options - NL																				
	61000 - NL HDD Landfall	28-Jul-14	29-Aug-14	29-Aug-14, 61000 - NL HDD Landfall																				
	61000 - NL Landfall Anchor	18-Aug-14	29-Aug-14	29-Aug-14, 61000 - NL Landfall Anchor																				
	61000 - NL Underground line from Anchor to Transition Compound	14-Aug-14	29-Aug-14	29-Aug-14, 61000 - NL Underground line from Anchor to Transition Compound																				
	11000 - T23001 - 230 kV AC transmission Line from the Granite Canal Switchyard to t...	03-Feb-14	04-Feb-14	04-Feb-14, 11000 - T23001 - 230 kV AC transmission Line from the Granite Canal Switchyard to the Bottom Brook																				
	14100 - E00502 - Grounding line from Bottom Brook Converter Station to Site NL	07-Jan-14	10-Feb-14	10-Feb-14, 14100 - E00502 - Grounding line from Bottom Brook Converter Station to Site NL																				
	21100 - 103NL - 230 kV New Switchyard at Granite Canal	03-Feb-14	17-Feb-14	17-Feb-14, 21100 - 103NL - 230 kV New Switchyard at Granite Canal																				
	22000 - 101NL - 230 kV Switchyard at Bottom Brook	03-Feb-14	17-Feb-14	17-Feb-14, 22000 - 101NL - 230 kV Switchyard at Bottom Brook																				
	31000 - 901NL - Grounding Site Newfoundland	27-Jan-14	10-Feb-14	10-Feb-14, 31000 - 901NL - Grounding Site Newfoundland																				
	41000 - 301NL - +/-200 kV HVDC Bottom Brook Converter Station	03-Feb-14	17-Feb-14	17-Feb-14, 41000 - 301NL - +/-200 kV HVDC Bottom Brook Converter Station																				
	52000 - 701NL - Overhead to Underground Transition Compound at Cape Ray	18-Aug-14	29-Aug-14	29-Aug-14, 52000 - 701NL - Overhead to Underground Transition Compound at Cape Ray																				
	58000 - Improvement of Road Infrastructure (e.g. bridges)	06-May-14	22-May-14	22-May-14, 58000 - Improvement of Road Infrastructure (e.g. bridges)																				
	12000 - X20005/6 - +/- 200 kV HVDC Overhead transmission line from Bottom Brook t...	18-Aug-14	29-Aug-14	29-Aug-14, 12000 - X20005/6 - +/- 200 kV HVDC Overhead transmission line from Bottom Brook to Cape Ray																				
	Insurance Services	03-Jul-12 A	31-Mar-14	31-Mar-14, Insurance Services																				
	Regulatory (UARB) Affairs	02-Jan-13 A	13-Dec-13	13-Dec-13, Regulatory (UARB) Affairs																				
	Regulatory (UARB) Affairs Application and Reviews	02-Jan-13 A	26-Jul-13 A	26-Jul-13 A, Regulatory (UARB) Affairs Application and Reviews																				
	UARB Public Hearings	24-Jun-13 A	22-Jul-13 A	22-Jul-13 A, UARB Public Hearings																				
	UARB 2013 update	29-Nov-13 A	13-Dec-13	13-Dec-13, UARB 2013 update																				
	Independent Project Reviews	08-Jul-13 A	31-Jan-14	31-Jan-14, Independent Project Reviews																				
	Land Based Assets - Design and Constructability Review	08-Jul-13 A	03-Oct-13 A	03-Oct-13 A, Land Based Assets - Design and Constructability Review																				
	Marine Based Assets - Design and Installability Review	12-Aug-13 A	10-Oct-13 A	10-Oct-13 A, Marine Based Assets - Design and Installability Review																				
	Financial and Schedule Review	19-Aug-13 A	31-Jan-14	31-Jan-14, Financial and Schedule Review																				
	Independent Project Review (IPR)	26-Aug-13 A	31-Jan-14	31-Jan-14, Independent Project Review (IPR)																				
	Human Resources, Diversity and Gender Equity and Benefits Strategy	01-Aug-12 A	27-Jan-14	27-Jan-14, Human Resources, Diversity and Gender Equity and Benefits Strategy																				
	CBoD/FBoD Hatch	04-Jan-12 A	22-Jan-13 A	22-Jan-13 A, CBoD/FBoD Hatch																				
	93000 Environmental	02-Apr-12 A	18-Aug-17	18-Aug-17, 93000																				
	EA Approval	11-Jan-13 A	09-Sep-13 A	09-Sep-13 A, EA Approval																				
	CEA Screening	11-Jan-13 A	09-Sep-13 A	09-Sep-13 A, CEA Screening																				
	Environmental Studies	02-Apr-12 A	30-Jun-15	30-Jun-15, Environmental Studies																				
	E11 Studies	02-Apr-12 A	13-Jun-14	13-Jun-14, E11 Studies																				
	E12 Studies	22-May-13 A	30-Jun-15	30-Jun-15, E12 Studies																				
	E13 Studies	01-Jul-13 A	24-Jul-14	24-Jul-14, E13 Studies																				

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Permits		01-Apr-13 A	30-Dec-16	30-Dec-16, Permits																				
11000 Permits (Transmission GC to BB)		01-May-13 A	31-Aug-15	31-Aug-15, 11000 Permits (Transmission GC to BB)																				
12000 Permits (Transmission BB to CR)		01-May-13 A	27-Nov-14	27-Nov-14, 12000 Permits (Transmission BB to CR)																				
13000 Permits (Transmission Pt.A to WB)		01-May-13 A	12-Aug-14	12-Aug-14, 13000 Permits (Transmission Pt.A to WB)																				
14100 Permits (Grounding Line BB to ESA#2)		11-Oct-13 A	23-May-14	23-May-14, 14100 Permits (Grounding Line BB to ESA#2)																				
14200 Permits (Grounding Line WB to GS#11)		11-Oct-13 A	31-Jul-14	31-Jul-14, 14200 Permits (Grounding Line WB to GS#11)																				
21100 Permits (103NL) Switchyard at Granite Canal		11-Oct-13 A	29-May-14	29-May-14, 21100 Permits (103NL) Switchyard at Granite Canal																				
21200 Permits (GC Switchyard)		29-Nov-13	26-Mar-15	26-Mar-15, 21200 Permits (GC Switchyard)																				
22000 Permits (BB Switchyard)		11-Oct-13 A	25-Apr-14	25-Apr-14, 22000 Permits (BB Switchyard)																				
23100 Permits (Connect 345KV Sub at WB to Conv. Sta)		11-Oct-13 A	25-Apr-14	25-Apr-14, 23100 Permits (Connect 345KV Sub at WB to Conv. Sta)																				
23200 Permits (Extension of 345KV Substation at WB)		11-Oct-13 A	19-Dec-13	19-Dec-13, 23200 Permits (Extension of 345KV Substation at WB)																				
31000 Permits (Grounding Site NL)		11-Oct-13 A	25-Apr-14	25-Apr-14, 31000 Permits (Grounding Site NL)																				
32000 Permits (Grounding Site NS)		11-Oct-13 A	25-Apr-14	25-Apr-14, 32000 Permits (Grounding Site NS)																				
41000 Permits (Converter Station BB)		11-Oct-13 A	25-Apr-14	25-Apr-14, 41000 Permits (Converter Station BB)																				
42000 Permits (Converter Station WB)		11-Oct-13 A	03-Jan-14	03-Jan-14, 42000 Permits (Converter Station WB)																				
51000 Permits (Overhead to U/G Transition CR)		11-Oct-13 A	25-Apr-14	25-Apr-14, 51000 Permits (Overhead to U/G Transition CR)																				
52000 Permits (Overhead to U/G Transition Pt.A)		11-Oct-13 A	03-Jan-14	03-Jan-14, 52000 Permits (Overhead to U/G Transition Pt.A)																				
53000 Permits (Overhead to U/G Transition WB)		11-Oct-13 A	03-Jan-14	03-Jan-14, 53000 Permits (Overhead to U/G Transition WB)																				
55000 Permits (Telecommunications Links)		05-Feb-15	25-Jun-15	25-Jun-15, 55000 Permits (Telecommunications Links)																				
58000 Permits (Road Infrastructure Improvements)		29-Nov-13	25-Apr-14	25-Apr-14, 58000 Permits (Road Infrastructure Improvements)																				
61000 Permits (Submarine Cable)		10-Nov-15	29-Mar-16	29-Mar-16, 61000 Permits (Submarine Cable)																				
62000 Permits (NS & NF Landfall HDD)		11-Oct-13 A	29-Sep-14	29-Sep-14, 62000 Permits (NS & NF Landfall HDD)																				
Permits Planning		01-Apr-13 A	30-Dec-16	30-Dec-16, Permits Planning																				
Environmental Protocol Documents		29-Nov-13	29-Nov-13	29-Nov-13, Environmental Protocol Documents																				
Aboriginal Relations		11-Jun-12 A	29-Nov-13	29-Nov-13, Aboriginal Relations																				
Other Stakeholder Relations		28-Jan-13 A	30-Dec-16	30-Dec-16, Other Stakeholder Relations																				
Post EA Environmental Monitoring Program		01-Jun-13 A	18-Aug-17	18-Aug-17, Post EA																				
Environmental Program 14001		31-Jan-13 A	19-Dec-13	19-Dec-13, Environmental Program 14001																				
94000 Land Acquisition		15-Jul-12 A	29-Aug-14	29-Aug-14, 94000 Land Acquisition																				
Land Acquisition Planning and Support		16-Jul-12 A	08-Jan-13 A	8-Jan-13 A, Land Acquisition Planning and Support																				
Land Admin / Tracking System		16-Jul-12 A	08-Jan-13 A	8-Jan-13 A, Land Admin / Tracking System																				
Land Acquisition Agency		06-Aug-12 A	31-Dec-12 A	31-Dec-12 A, Land Acquisition Agency																				
Securing Access to NS Land		15-Jul-12 A	29-Aug-14	29-Aug-14, Securing Access to NS Land																				
13000 - X20001/2 - +/- 200 kV HVDC Overhead transmission line from PA to WB Converter...		15-Jul-12 A	29-Aug-14	29-Aug-14, 13000 - X20001/2 - +/- 200 kV HVDC Overhead transmission line from PA to WB Converter Station																				
14200 - E00501 - Grounding line from Woodbine to NS Converter Grounding Site		25-Feb-13 A	29-Aug-14	29-Aug-14, 14200 - E00501 - Grounding line from Woodbine to NS Converter Grounding Site																				
61000 - NS Underground line from Anchor to Transition Compound		06-May-13 A	13-Sep-13 A	13-Sep-13 A, 61000 - NS Underground line from Anchor to Transition Compound																				
23200 - 301NS - Extension of 345 kV Substation at Woodbine		05-Nov-12 A	20-Nov-12 A	20-Nov-12 A, 23200 - 301NS - Extension of 345 kV Substation at Woodbine																				
42000 - 301NS - +/- 200 kV HVDC Woodbine Converter Station		03-Dec-12 A	06-Dec-12 A	06-Dec-12 A, 42000 - 301NS - +/- 200 kV HVDC Woodbine Converter Station																				
52000 - 701NS - Overhead to Underground Transition Compound at Point Aconi		05-Nov-12 A	05-Dec-12 A	05-Dec-12 A, 52000 - 701NS - Overhead to Underground Transition Compound at Point Aconi																				
52000 - 702NS - Overhead to Underground Transition Compound at Woodbine		05-Nov-12 A	07-Nov-12 A	07-Nov-12 A, 52000 - 702NS - Overhead to Underground Transition Compound at Woodbine																				
61000 - NS HDD Landfall		05-Nov-12 A	07-Nov-12 A	07-Nov-12 A, 61000 - NS HDD Landfall																				
61000 - NS Landfall Anchor		05-Nov-12 A	07-Nov-12 A	07-Nov-12 A, 61000 - NS Landfall Anchor																				
32000 - 901NS - Grounding Site Nova Scotia		05-Nov-12 A	29-Aug-14	29-Aug-14, 32000 - 901NS - Grounding Site Nova Scotia																				
Land Access on 7015 and Others (Pinch Points)		01-Mar-13 A	31-Jan-14	31-Jan-14, Land Access on 7015 and Others (Pinch Points)																				
Securing Access to NL Land		05-Nov-12 A	29-Aug-14	29-Aug-14, Securing Access to NL Land																				
NL HDD Landfall		18-Feb-13 A	29-Aug-14	29-Aug-14, NL HDD Landfall																				
NL Landfall Anchor		05-Feb-13 A	29-Aug-14	29-Aug-14, NL Landfall Anchor																				
NL Underground line from Anchor to Transition Compound		21-Jan-13 A	29-Aug-14	29-Aug-14, NL Underground line from Anchor to Transition Compound																				

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				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
T23001	230 kV AC transmission Line from the Granite Canal Switchyard to the Botto...	05-Nov-12 A	04-Apr-14																						
E00502	Grounding line from Bottom Brook Converter Station to Site NL	01-May-13 A	31-Jan-14																						
103NL	230 kV New Switchyard at Granite Canal	07-Jan-13 A	31-Jan-14																						
101NL	230 kV Switchyard at Bottom Brook	07-Jan-13 A	31-Jan-14																						
901NL	Grounding Site Newfoundland	06-May-13 A	24-Jan-14																						
301NL	+/-200 kV HVDC Bottom Brook Converter Station	01-Apr-13 A	31-Jan-14																						
701NL	Overhead to Underground Transition Compound at Cape Ray	18-Feb-13 A	29-Aug-14																						
	Improvement of Road Infrastructure (e.g. bridges)	29-Nov-13 A	06-May-14																						
X20005/6	+/- 200 kV HVDC Overhead transmission line from Bottom Brook to Cape Ray	07-Jan-13 A	29-Aug-14																						
90500	Other NLH System Upgrades	31-Aug-12 A	19-Jun-14																						
	Engineering (TL201, Bay D'Espoir, Upper Salmon)	31-Aug-12 A	16-Jun-14																						
	TL201 (Avalon)	31-Aug-12 A	16-Jun-14																						
	Bay D'Espoir Line Terminal Swap	31-Aug-12 A	26-May-14																						
	Upper Salmon Breaker Addition	31-Aug-12 A	21-May-14																						
	Procurement (Materials & Fabrication)	21-May-14	16-Jun-14																						
	Procurement - TL201 (Avalon)	16-Jun-14	16-Jun-14																						
	Procurement - Bay D'Espoir Line Terminal Swap	28-May-14	28-May-14																						
	Procurement - Upper Salmon Breaker Addition	21-May-14	21-May-14																						
	Construction	23-May-14	18-Jun-14																						
	Construction - TL201 (Avalon)	18-Jun-14	18-Jun-14																						
	Construction - Bay D'Espoir Line Terminal Swap	29-May-14	29-May-14																						
	Construction - Upper Salmon Breaker Addition	23-May-14	23-May-14																						
	Commissioning	26-May-14	19-Jun-14																						
	Dynamic Commissioning (90100)	19-Sep-17	04-Oct-17																						

Remaining Level of Effort
 Remaining Work
 Critical Remaining ...
 Actual Work
 Milestone
 Summary

