PARTIALLY CONFIDENTIAL

1	Requ	nest IR-1:
2		
3	Re: 1	NSPML placed the Maritime Link into service on January 15, 2018, on time and on
4	budg	get, as stated in the application on page 4 of 21:
5		
6	(a)	Please confirm this assertion relates merely to the capital cost of the project prior to
7		the in-service date.
8		
9	(b)	Please identify the total costs (capital and operating) expected to be incurred prior
10		to delivery of the NS Block per the application.
11		
12	(c)	Please identify the total costs (capital and operating) incurred to date and forecast
13		through to the anticipated NS Block delivery.
14		
15	(d)	Have additional costs been imposed on Nova Scotia ratepayers as a result of the
16		delay of the NS Block and associated Muskrat Falls Generating Station? Please
17		explain and quantify.
18		
19	Resp	onse IR-1:
20		
21	(a)	This statement relates to NSPML's forecast that the total capital cost of the Project that
22		will be submitted as part of the final costing will not exceed \$1.577 billion.
23		
2425		
26		
27		
28		

Date Filed: August 1, 2019

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1	(b)	The total costs (capital and operating) forecasted to be incurred prior to the delivery of
2		the NS Block per the application are as follows:
3		
4		 Capital costs not to exceed \$1.577 billion
5		• Operating costs of \$35.7 million
6		• \$11.1 million – 2018 Actuals
7		• \$18.3 million – 2019 Forecast
8		• \$6.3 million - Jan 1 to May 31, 2020 Forecast
9		
10	(c)	The total costs (capital and operating) incurred to date and forecasted through to the
	(C)	
11		anticipated NS Block delivery are as follows:
12		• Capital costs
13		o Incurred to June 30, 2019 - \$1.53 billion
14		o Remaining forecast to July 1, 2020 - not to exceed \$47 million
15		Operating costs
16		o Incurred to June 30, 2019 – \$16.7 million
17		o Remaining costs forecasted to May 31, 2020 – \$19.0 million
18		
19	(d)	In its 2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
20		NS Power provides forecast incremental Fuel & Purchased Power (F&PP) costs
21		arising from a delay in the delivery of energy from Muskrat Falls Generating Station.
22		These costs were forecast to be for the period from April to December
23		2018, and for the entirety of 2019. NS Power has not forecast the
24		incremental F&PP cost in 2020, however its recent 2020-2022 Fuel Stability Plan
25		Application includes the assumption that the NS Block will commence June 1, 2020,
26		and any additional F&PP costs up to that date are embedded in the base forecast.
27		

Date Filed: August 1, 2019

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1 Request IR-2:

2

- Re: The total AFUDC project cost approval outlined in the application on page 8 and 11 of 4 21:
- 5 (a) What was the total AFUDC recorded on the project, broken down by year as interest and return?

7

8

9

(b) What was the total interest and return recorded in 2018 and 2019 after the asset was placed in service (i.e., January 15, 2018)?

10

11 Response IR-2:

1213

(a) Total Allowance for Funds Used During Construction, (AFUDC) recorded by year and component:

15 16

14

AFUDC By Year and Component (\$ Millions)			
	AFUDC-Debt	AFUDC-Equity	Total AFUDC
2011		0.2	0.2
2011	-	0.2	0.2
2012	-	1.7	1.7
2013	-	4.2	4.2
2014	16.7	11.6	28.3
2015	28.7	14.9	43.6
2016	33.5	20.9	54.4
2017	40.0	36.4	76.4
Total	118.8	90.0	208.8

17

18

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	* ** ** ** ** ** ** ** ** ** ** ** ** *	
	Total Net Debt	Net Earnings
	Interest Expense	(Return on Equity)
2018 - Actual	\$43.0	\$45.1
2019 – Actual from January 1 to June 30	\$21.8	\$26.3

2

CONFIDENTIAL (Attachment Only)

1	Reque	est IR-3:	
2			
3	Re: NSPML's statement that balances will be trued up to ensure customers pay no more and		
4	no less	s than the actual approved costs in the application at page 11 of 21:	
5			
6	(a)	Is the intent to delay depreciation if the NS Block does not arrive by June 1, 2020, or	
7		is interrupted in 2020? Please explain.	
8			
9	(b)	When does NSPML intend to recall the equity of \$8.6 million? How and when will	
10		this be accomplished?	
11			
12	Respo	nse IR-3:	
13			
14	(a)	NSPML's intention is to recover sufficient depreciation in 2020 so as to enable payment	
15		of debt and return of equity as outlined in the application and remain compliant with the	
16		ML Credit Agreement, including the Debt Service Coverage Ratio. As noted in NSPML's	
17		application, 1 notwithstanding the commencement of the NS Block, NSPML requires	
18		proceeds of \$20 million to enable the repayment of debt of that amount on December 1,	
19		2020. Similarly, it requires \$8.6 million to return equity to its shareholder in order to	
20		maintain the UARB approved Debt to Equity Ratio of 70:30.	
21			
22		NSPML is open to consider a later date in 2020 to commence the recovery of depreciation	
23		of \$28.6 million provided NSPML recovers this amount in a timely manner to enable	
24		payment of debt and return of equity and ensure full compliance with the ML Credit	
25		Agreement; please refer to Attachment 1 for a copy of the ML Credit Agreement.	

Date Filed: August 1, 2019

¹ NSPML 2020 Interim Assessment (M09277), page 14, lines 8-22

CONFIDENTIAL (Attachment Only)

1		However, as noted in NSUARB IR-006 (f), NSPML's view is that the recovery of
2		depreciation should not be deferred beyond the commencement of the NS Block.
3		
1	(b)	NSPML intends to return \$8.6 million to its shareholder in order to maintain the Board-
5		approved debt to equity ratio of 70:30, and intends to do so coincident with the December
5		1, 2020 debt principal repayment using proceeds recovered via depreciation.

ML CREDIT AGREEMENT

AMONG

THE TORONTO-DOMINION BANK, as Collateral Agent

AND

BNY TRUST COMPANY OF CANADA, as ISSUER TRUSTEE of MARITIME LINK FINANCING TRUST, as the Funding Vehicle

AND

NSP MARITIME LINK INCORPORATED, as the Borrower

DATED AS OF February 24, 2014

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MARITIME LINK CREDIT AGREEMENT is made as of February 24 , 2014

AMONG: THE TORONTO-DOMINION BANK, as Collateral Agent

AND: BNY TRUST COMPANY OF CANADA, as Issuer Trustee of

MARITIME LINK FINANCING TRUST, as the Funding Vehicle

AND: NSP MARITIME LINK INCORPORATED,

as the Borrower

WITNESSETH THAT:

WHEREAS the Funding Vehicle intends to borrow funds pursuant to the Funding Transaction Documents by issuing FV Obligation Bonds and/or FV Pledge Bonds from time to time pursuant to the MTI for the sole purpose of lending those funds to the Borrower and the Funding Vehicle will then onlend the funds it borrows to the Borrower pursuant to this Agreement so that the Borrower may finance, in part, the Project Costs;

WHEREAS pursuant to and in accordance with the provisions of the Collateral Agency Agreement, the Collateral Agent has agreed to perform various duties in connection with the ML Project Finance Documents;

NOW THEREFORE, in consideration of the mutual covenants herein contained and other good and valuable consideration given by each of the parties hereto, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

ARTICLE 1

INTERPRETATION

1.1 **Definitions and Interpretation**

The capitalized terms used herein and not otherwise defined herein shall have the meanings ascribed to them from time to time in Exhibit "A" attached hereto. The rules of interpretation set forth in Article 1 of the Exhibit "A" apply to this Agreement.

1.2 **Recitals**

The recitals of this Agreement shall form an integral part hereof, as if at length recited herein.

1.3 **Headings, etc**

The division of this Agreement into recitals, Articles, Sections, subsections, Schedules, paragraphs, subparagraphs and clauses and the insertion of headings and titles are for the convenience of reference only and shall not affect the construction or interpretation of this Agreement. The terms "ML Credit Agreement", "this ML Credit Agreement", "this Agreement", "herein", "hereof", "hereto", "hereunder" and similar expressions refer to this Agreement and not to any particular recital, Article, Section, subsection, Schedule, paragraph, subparagraph, clause or other portion of this Agreement.

1.4 **Severability**

If any provision of this Agreement is determined pursuant to a final judgment to be invalid, illegal or unenforceable in any jurisdiction, the parties hereto agree to the fullest extent they may effectively do so that (i) the validity, legality and enforceability in every other jurisdiction of such provision shall not in any way be affected or impaired thereby and (ii) the validity, legality and enforceability in such jurisdiction of the remaining provisions hereof shall not in any way be affected or impaired thereby. With the consent of the other parties hereto, the Collateral Agent (acting in accordance with Requisite Instructions) and such other parties hereto shall change this Agreement to replace any invalid or unenforceable provision contained in this Agreement with a valid and enforceable provision which has the commercial effect as close as possible to that of the invalid and unenforceable provision, to the extent permitted by Applicable Law.

1.5 References to Acts of the Trustees

For greater certainty, where any reference is made in this Agreement to an act to be performed by, an appointment to be made by, an obligation or liability of, an asset or right of, a discharge or release to be provided by, a Proceeding to be taken by or against, or a covenant, representation or warranty by or with respect to (a) the Funding Vehicle or (b) the Issuer Trustee, such reference shall be construed and applied for all purposes as if it referred to an act to be performed by, an appointment to be made by, an obligation or

liability of, an asset or right of, a discharge or release to be provided by, a Proceeding to be taken by or against, or a covenant, representation or warranty by or with respect to the Issuer Trustee as trustee of the Funding Vehicle. It is hereby acknowledged and agreed that, subject to the ML FV Declaration of Trust, the Issuer Trustee may appoint any Person to manage any of the Assets of the Funding Vehicle, respectively, and to appoint any agent to transact any business on behalf of the Funding Vehicle, respectively, and therefore, any acts to be performed by the Issuer Trustee may be performed by any such Person or agent.

1.6 **Governing Law**

This Agreement will be construed in accordance with the Laws of NS and the federal Laws of Canada applicable therein and will be treated in all respects as a NS contract. All Proceedings arising hereunder shall be determined exclusively by a court of competent jurisdiction in NS, subject to any right of appeal to the Supreme Court of Canada and the parties hereby attorn to the jurisdiction of such courts.

1.7 **Exhibits and Schedules**

The following are the Schedules attached to this Agreement and deemed to be part thereof:

Exhibit "A"	Definitions
Exhibit "B"	Financing and Payment Terms and Sinking Fund Payments
Schedule "A"	ML Land Area
Schedule "B"	Material Project Documents and Authorizations
Schedule "C"	Applicable Laws
Schedule "D"	Environment
Schedule "E"	Sources and Uses of Funds
Schedule "F"	Litigation
Schedule "G"	Corporate Structure and Location of Assets
Schedule "H"	Aboriginal Matters
Schedule "I"	IE Certificate
Schedule "J"	Operating Report
Schedule "K"	Construction Report
Schedule "L"	Commissioning Certificate
Schedule "M"	Commissioning Confirmation
Schedule "N"	Distribution Certificate
Schedule "O-1"	Final Funding Request

Schedule "O-2" Post-Commissioning Funding Request

Schedule "P" Funding Request

Schedule "Q" Independent Engineer's Confirmation

Schedule "R" ML Compliance Certificate

Schedule "S" ML Draw Request

Schedule "T" Key Sites

Schedule "U" Project Budget

Schedule "V" Project Schedules

Schedule "W" Prepayment Notices

Schedule "X" Form of Letter of Credit

Schedule "Y" Financial Model Requirements

Schedule "Z" Sinking Fund Investments

Schedule "AA" Basis of Design

Schedule "BB" WCR Release and Equity Funding Notice

Schedule "CC" Funding Request Supporting Documentation

Schedule "DD" System Completion Plan

1.8 <u>Time of the Essence</u>

Time shall in all respects be of the essence of this Agreement.

ARTICLE 2

ML CONSTRUCTION FACILITY

2.1 **Grant of ML Construction Facility**

The Funding Vehicle agrees, upon the terms and subject to the conditions of this Agreement, to lend to the Borrower an amount of up to but not exceeding, in the aggregate, the principal amount of the ML Construction Facility.

2.2 **Purpose**

All Advances under the ML Construction Facility shall be used by the Borrower exclusively for the purpose of financing the Project Costs; for greater certainty, no Advances under the ML Construction Facility shall be used for the repayment of any principal amount of Additional Debt.

2.3 **Facility Limit**

- 2.3.1 As of the Closing Date, the aggregate amount of the ML Construction Facility and the ML Letter of Credit Facility shall be equal to the total amount of the FV Debt which shall not be greater than the maximum aggregate amount of CDN\$1.3 billion. For greater certainty, the total amount of the FV Debt for such purposes shall include the face amount of all FV Pledge Bonds irrespective of the actual Indebtedness of the Funding Vehicle to the holders thereof.
- 2.3.2 The ML Construction Facility shall be comprised of tranches of debt corresponding to each series of FV Bonds issued under and pursuant to the MTI and each Supplemental Indenture. The financing and payment terms of each tranche of the ML Construction Facility shall be set out in the applicable schedule to Exhibit B of this Agreement. As each series of FV Bonds is issued, there shall be a corresponding schedule to Exhibit B added to this Agreement setting out the applicable financing and payment terms of such tranche of the ML Construction Facility.
- 2.3.3 Where under any of the terms hereof, the ML Construction Facility or any portion thereof is cancelled, reduced or terminated, same may not subsequently be increased, any such cancellation, reduction or termination thereof being permanent.

2.4 **Nature and Availability**

- 2.4.1 The ML Construction Facility is available on a non-revolving basis such that the Borrower may not reborrow the whole or any part of any Advance previously repaid, any such repayment automatically reducing the ML Construction Facility by an amount equal to the amount repaid.
- 2.4.2 The ML Construction Facility is available in Canadian Dollars only.
- 2.4.3 ML Drawdowns under the ML Construction Facility may only be made during the Construction Period except for ML Drawdowns to fund Post-Commissioning Eligible Project Costs which may be made for a period of two (2) years following the end of the Construction Period.

2.5 **Borrowing Procedures**

In order to obtain a ML Drawdown on any ML Drawdown Date hereunder, the Borrower must deliver to the Collateral Agent a ML Draw Request at the latest by 10:00 a.m., Atlantic time on the ML Drawdown Date, concurrently with the Funding Request, Final Funding Request or Post-Commissioning Funding Request, as the case may be, relating to the proposed ML Drawdown Date. Once delivered, no ML Draw Request may subsequently be revoked or withdrawn by the Borrower. With the consent of the Collateral Agent acting in accordance with Requisite Instructions, the Borrower may submit more than one ML Draw Request per month and there may be more than one Advance per month. Any ML Drawdown shall be apportioned amongst each tranche of

the ML Construction Facility in such amounts as reasonably determined by the Funding Vehicle in consultation with the Borrower.

2.6 **Repayments**

- 2.6.1 On each FV Payment Date, the Borrower hereby agrees to repay the portion of the principal amount of the ML Construction Loan outstanding on such date which is equal to the repayment of principal payable by the Funding Vehicle on such FV Payment Date relating to the applicable FV Bond, as evidenced by the corresponding schedule under Exhibit B.
- 2.6.2 The Borrower hereby agrees to repay on the date which is two (2) Business Days prior to each FV Bond Maturity Date, the sum of (a) the portion of the principal amount of the ML Construction Loan outstanding on such date relating to the applicable FV Bond, as evidenced by the corresponding schedule under Exhibit B, and (b) accrued and unpaid interest, fees and other amounts and interest on arrears of interest, fees and other amounts relating to such portion of the ML Construction Loan, accrued and unpaid up to, but excluding, the FV Bond Maturity Date.

2.7 **Voluntary Prepayments**

- 2.7.1 The Borrower may voluntarily prepay at any time the whole or any portion of the ML Construction Loan by paying to the Collateral Agent, or as otherwise agreed between the Borrower, the Funding Vehicle and the Collateral Agent (acting in accordance with Requisite Instructions), for the account of the Funding Vehicle, before 1:00 p.m., Atlantic time, on the ML Voluntary Prepayment Date.
- 2.7.2 If the Borrower voluntarily elects to prepay the whole or any portion of the ML Construction Loan, the amount payable on the ML Voluntary Prepayment Date shall be equal to the sum of (i) the aggregate principal amount of the ML Construction Loan to be repaid on such date; (ii) accrued and unpaid (a) interest on such principal amount, and (b) the ML Financing Fee, in an aggregate amount which, together with the amount in (a), shall be at least equal to the aggregate amount of interest accrued on the FV Bonds which will be payable on the FV Bond Redemption Date; and (iii) any ML Make-Whole Amount applicable to such FV Bonds (unless the Borrower pays the FV Bond Make-Whole Amount directly).
- 2.7.3 The Borrower shall issue a ML Voluntary Prepayment Notice at the latest by 10:00 a.m., Atlantic time, at least 35 days prior to the proposed ML Voluntary Prepayment Date. Once delivered, no ML Voluntary Prepayment Notice may be revoked or withdrawn by the Borrower.
- 2.7.4 Upon a ML Voluntary Prepayment Notice for the prepayment of the whole of the ML Construction Loan having been so given, the ML Construction Loan will thereupon be due and payable in an amount equal to that set forth in subsection 2.7.1 on the ML Voluntary Prepayment Date, in the same manner and

with the same effect as if such date were the maturity date of the ML Construction Loan, anything herein to the contrary notwithstanding, and from and after such ML Voluntary Prepayment, if the moneys necessary to prepay the ML Construction Loan are paid as herein provided, the ML Construction Loan will not be considered outstanding hereunder and interest and ML Financing Fee in respect of the ML Construction Facility will cease from the ML Voluntary Prepayment Date.

2.8 Sinking Fund Account Payments

The Borrower hereby agrees to pay to the Collateral Agent, or as otherwise agreed between the Borrower, the Funding Vehicle and the Collateral Agent (acting in accordance with Requisite Instructions), for deposit in the Sinking Fund Account, on each Sinking Fund Deposit Date, a total amount determined by aggregating the amounts set forth beside each such Sinking Fund Deposit Date as set out in each applicable schedule to Exhibit B hereto (each such payment being a "Sinking Fund Payment"), less any amount transferred to the Sinking Fund Account pursuant to Section 2.9 and required to be imputed towards such Sinking Fund Payment in accordance with the provisions of Section 2.9. Amounts so deposited in the Sinking Fund Account shall only be released by the Collateral Agent in accordance with Section 8.7. The Borrower shall invest any amounts held in the Sinking Fund Account in accordance with Schedule "Z".

2.9 **Prepayment of Sinking Fund Account**

If as a result of the application of paragraphs (v) to (xiv) of the definition of "Final Funding Request":

- 2.9.1 there remains a balance in the Borrower Project Funding Account or the Working Capital Reserve Account, the aggregate amount of such balance, as calculated pursuant to paragraph (xvii) of the definition of "Final Funding Request", shall on the date of the Advance relating to the Final Funding Request, be transferred to the Sinking Fund Account; and
- 2.9.2 the Available ML Construction Facility is greater than nil, an Advance shall be deemed to have been requested pursuant to the ML Draw Request delivered in connection with the Final Funding Request in an amount sufficient to reduce the Available ML Construction Facility to nil, and such amount shall be deposited into the Sinking Fund Account;

and the amounts contemplated in subsections 2.9.1 and 2.9.2 shall be imputed to the Sinking Fund Payments on each Sinking Fund Deposit Date in the chronological order thereof.

2.10 <u>Letter of Credit Facility</u>

2.10.1 The Funding Vehicle agrees to arrange the ML Letter of Credit Facility with one or more ML L/C Issuers. The purpose of the ML Letter of Credit Facility is to cause the issuance of letters of credit by the ML L/C Issuers on behalf of

the Borrower as may be reasonably required to facilitate the development, construction and operation of the Project. The ML Letter of Credit Facility shall be a revolving facility which shall not exceed the aggregate amount of all letter of credit facilities under which the Funding Vehicle is entitled to draw from time to time.

- 2.10.2 To request the issuance of a letter of credit (or the amendment, renewal or extension of an outstanding letter of credit), the Borrower shall deliver to the Funding Vehicle and the Collateral Agent (at least ten (10) Business Days in advance of the requested date of issuance, amendment, renewal or extension) a notice requesting the issuance of a letter of credit, or identifying the letter of credit to be amended, renewed or extended, the date of issuance, amendment, renewal or extension, the date on which such letter of credit is to expire, the amount of such letter of credit, the name and address of the beneficiary thereof and such other information as shall be necessary to prepare, amend, renew or extend such letter of credit.
- 2.10.3 The Borrower shall pay to the Funding Vehicle in respect of each letter of credit issued under the ML Letter of Credit Facility, on the basis of the undrawn amount of the applicable letter of credit, the amount of the ML L/C Fee for the Funding Vehicle to pay such ML L/C Fee to the ML L/C Issuers on behalf of the Borrower. Such ML L/C Fee shall be payable by the Borrower on each ML Interest Payment Date as applicable.
- 2.10.4 If a ML L/C Issuer shall make any disbursement pursuant to a letter of credit issued under the ML Letter of Credit Facility, the amount of such disbursement shall immediately be deemed to be an Advance for all purposes under the ML Construction Facility.

ARTICLE 3

INTEREST AND FINANCING FEES

3.1 Interest

- 3.1.1 The Borrower hereby covenants and agrees to pay to the Collateral Agent, or as otherwise agreed between the Borrower, the Funding Vehicle and the Collateral Agent (acting in accordance with Requisite Instructions), for the account of the Funding Vehicle, interest on each Advance under the ML Construction Loan at an annual rate equal to the Applicable Interest Rate for such Advance.
- 3.1.2 Each Advance under the ML Construction Loan shall bear interest from and including the date of the Advance hereunder at a rate equal to the Applicable Interest Rate for such Advance payable in arrears on each ML Interest Payment Date.
- 3.1.3 Interest on each Advance is payable on each ML Interest Payment Date (i) in respect of the first ML Interest Payment Date, in an amount of interest accrued

and to accrue from the date of the Advance hereunder up to and including the Business Day immediately following such ML Interest Payment Date, and (ii) in respect of any ML Interest Payment Date thereafter, in an amount of interest accrued from the later of the immediately preceding ML Interest Payment Date and the date of such Advance up to and including such subsequent ML Interest Payment Date.

- 3.1.4 Interest on all overdue interest on each Advance under the ML Construction Loan shall be calculated, compounded and payable in accordance with the corresponding schedule to Exhibit B of this Agreement as it relates to such Advance or tranche of the ML Construction Loan and as set forth in the definition of Applicable Interest Rate.
- 3.1.5 Interest payable on each Advance under the ML Construction Loan shall be payable after as well as before maturity and after as well as before default and judgement.
- 3.1.6 As additional interest payable on the Advances under the ML Construction Loan, the Borrower hereby covenants and agrees to pay to the Collateral Agent, or as otherwise agreed between the Borrower, the Funding Vehicle and the Collateral Agent (acting in accordance with Requisite Instructions), for the account of the Funding Vehicle, on an annual basis, on the last Business Day of each calendar year, an amount equal to CDN\$10,000.

3.2 **Financing Fees**

The Borrower hereby covenants and agrees to pay to the Collateral Agent, or as 3.2.1 otherwise agreed between the Borrower, the Funding Vehicle and the Collateral Agent (acting in accordance with Requisite Instructions), for the account of the Funding Vehicle, a financing fee in respect of each ML Interest Payment Date, in the amount, if any, by which (i) the aggregate amount of interest payable by the Funding Vehicle in respect of the FV Debt on such date exceeds the sum of (ii) the amount of interest or other income earned or realized by the Funding Vehicle on Investments, including on the proceeds of the FV Bonds which have not been disbursed to the Borrower, since the last ML Interest Payment Date and (iii) the amount of interest otherwise payable hereunder by the Borrower in respect of the ML Construction Loan on such date pursuant to Article 3 (not including pursuant to Section 3.1.6) (the "ML Financing Fee"). The ML Financing Fee is payable on each ML Interest Payment Date. If, at the end of the fiscal year of the Funding Vehicle, the sum of the amounts in clauses (ii) and (iii) above for the entire fiscal year of the Funding Vehicle exceeds the sum of the amounts in clause (i) for the entire fiscal year, then the Collateral Agent, acting in accordance with Requisite Instructions, shall cause to be paid from the FV Payment Account, on behalf of the Funding Vehicle, to the Borrower the difference as a refund of the ML Financing Fee for the fiscal year (and, if in excess of such ML Financing Fee already paid, then as a refund of interest paid on the Advances under the ML Construction Loan under subsection 3.1.1) and provided further that if the Issuer

Trustee determines that the Funding Vehicle will have taxable income for the fiscal year in excess of CDN\$10,000, then the Collateral Agent, acting in accordance with Requisite Instructions, shall cause to be paid from the FV Payment Account, on behalf of the Funding Vehicle, to the Borrower such amount as will result in the Funding Vehicle having taxable income of CDN\$10,000 as a refund of the ML Financing Fee for the fiscal year (and, if in excess of such ML Financing Fee already paid, then as a refund of interest paid on the Advances under the ML Construction Loan under subsection 3.1.1).

- 3.2.2 Interest on all overdue ML Financing Fees payable shall be calculated, compounded and payable in accordance with, *mutatis mutandis*, the provisions of subsection 3.1.4.
- 3.2.3 The ML Financing Fee payable shall be payable after as well as before maturity and after as well as before default and judgement.

3.3 Aggregate Interest and Financing Fee payable on each ML Interest Payment Date

The parties hereby acknowledge and agree, for greater certainty, that the sum of the interest and the ML Financing Fee payable on each ML Interest Payment Date during the Construction Period pursuant to Article 3 shall be at least equal to the aggregate amount of interest payable by the Funding Vehicle, on such date, for the FV Debt.

3.4 Advances to Pay Interest on Advances during the Construction Period

Interest payable on each Advance outstanding under the ML Construction Facility shall be paid on each ML Interest Payment Date for such Advance and the amount of such interest payable on such ML Interest Payment Date during the Construction Period shall be paid by means of a ML Drawdown on such ML Interest Payment Date of an Advance of the same type as the Advance on which interest was due and in the amount of such interest without compliance with the provisions of Section 2.5, Section 7.1, Section 7.2 or Section 7.3.

ARTICLE 4

MANNER OF PAYMENTS

4.1 **Payments to Collateral Agent Only**

4.1.1 All payments or repayments of principal and interest on the ML Construction Loan and of fees and other amounts due and to become due hereunder with respect to the ML Construction Loan and the ML Construction Facility by the Borrower must be effected by direct payments in Canadian Dollars to the FV Payment Account, or as otherwise agreed between the Borrower, the Funding Vehicle and the Collateral Agent (acting in accordance with Requisite Instructions). If any such payment or repayment is made directly to the Collateral Agent, the receipt by the Collateral Agent of such amounts shall be deemed to constitute the receipt of such amounts by the Funding Vehicle.

4.1.2 If, for any reason, any such payment or repayment is made directly to the Funding Vehicle, the Funding Vehicle shall promptly remit any amount so received to the Collateral Agent to be deposited into the FV Payment Account, or as otherwise agreed between the Borrower, the Funding Vehicle and the Collateral Agent (acting in accordance with Requisite Instructions).

4.2 Payment on any Business Day by 3:00 p.m., Atlantic time

Whenever any payment or repayment falls due on a day which is not a Business Day, such payment or repayment shall be made on the next following Business Day. Furthermore, any amount received after 3:00 p.m., Atlantic time, on any Business Day shall be applied to the appropriate payment or repayment which was required to be made on such Business Day, on the next following Business Day. Until so applied, interest shall continue to accrue as provided in this Agreement on the amount of such payment or repayment.

ARTICLE 5

[INTENTIONALLY DELETED]

ARTICLE 6

SECURITY

6.1 **Security by the Borrower**

As general and continuing collateral security for the due payment and performance of the ML Secured Obligations, the Borrower shall grant first ranking Liens, subject only to Permitted Encumbrances, on all of its present and future Assets (other than Distributions permitted under this Agreement which are still in the possession of the Borrower) to and in favour of the Collateral Agent. For such purpose, on or prior to the first ML Drawdown hereunder, the Borrower shall deliver, or cause to be delivered:

- a debenture providing for a first charge and security interest on all the present and future real property (including leasehold interest in real property), personal property, fixed assets and all other Assets of the Borrower;
- an assignment of all Material Project Documents, together with any consent necessary under such Material Project Documents to allow the assignment by way of security and the realization of such security;
- a blocked account agreement with respect to the Borrower Project Accounts; and
- all payment and material bonds, performance bonds and other performance security of any kind provided to the Borrower under Material Project Documents naming the Collateral Agent as co-obligee thereunder.

All of the foregoing documents must be in form and substance satisfactory to the Collateral Agent.

6.2 **Security by Emera**

As general and continuing collateral security for the due payment and performance of the ML Secured Obligations, Emera shall pledge in favour of the Collateral Agent, all presently held and after acquired Capital Stock it holds at any time in the Borrower, it being understood that the recourses of the Collateral Agent pursuant to such pledge shall be limited to such pledged Capital Stock of the Borrower, with no personal recourse to Emera.

6.3 **Registration**

The Borrower shall register, or shall cause to be registered, and hereby authorizes the Collateral Agent and the Collateral Agent's Counsel to register the ML Security Documents and any financing statement, notice, application for registration or other document in respect thereof, in all offices, including against the Borrowers freehold or leasehold interest, as the case may be, in the Key Sites only in any land registry in Nova Scotia and against the Borrower's freehold interests in the Key Sites only in any land titles office in Newfoundland, where such registration is necessary or of advantage, in the opinion of the Collateral Agent's Counsel, to create, preserve, protect and perfect the Liens created under the ML Security Documents and their validity, effect, perfection and priority at all times.

6.4 Further Assurances

On request from the Collateral Agent from time to time, the Borrower shall execute or cause to be executed, all such agreements, documents and instruments (including any amendment to any ML Project Finance Document) and do or cause to be done all such other matters and things which in the opinion of the Collateral Agent or the Collateral Agent's Counsel may be necessary or of advantage to create, preserve, protect or perfect (so far as may be possible under any Applicable Law) the Liens and the validity, effect, perfection and priority intended to be created by the ML Project Finance Documents or to facilitate realization under such Liens.

6.5 **Discharge of Certain Security**

The Funding Vehicle authorizes the Collateral Agent to discharge the Liens created pursuant to the ML Security Documents, but only in respect of any Assets disposed of in compliance with the provisions of this Agreement.

6.6 **Survival of Security**

Subject to Section 6.5, the Borrower and the Funding Vehicle hereby acknowledge and agree that, none of the Liens created pursuant to the ML Security Documents shall be released until all ML Secured Obligations are indefeasibly repaid in full, including, for

clarity, and without duplication, the repayment in full of all repayments required to be made to Canada under the GAA.

ARTICLE 7

CONDITIONS PRECEDENT

7.1 **Initial Conditions**

No Advance will be made by the Funding Vehicle pursuant to the ML Construction Facility until the following conditions precedent (the "ML Initial Conditions Precedent") shall have been met to the satisfaction of the Collateral Agent or, as the case may be, waived by the Collateral Agent:

CORPORATE MATTERS

- 7.1.1 the Collateral Agent shall have received:
 - 7.1.1.1 true and complete copies of the constitutive documents, charter and by-laws of the Borrower and of the FV Declaration of Trust;
 - 7.1.1.2 true and complete copies of the resolutions of the board of directors and/or the shareholders and/or partners, as appropriate, in form and substance satisfactory to the Collateral Agent, authorizing or ratifying the execution and delivery of, and the performance by the Borrower of its obligations under the ML Project Finance Documents, to which it is a party and stating the offices of the Responsible Officers or other Persons who are authorized to sign such documents;
 - 7.1.1.3 a certificate, in form and substance satisfactory to the Collateral Agent, stating the name, office and the true signature of each Responsible Officer or other appointed individual of the Borrower executing the ML Project Finance Documents, and the Initial Material Project Documents;
 - 7.1.1.4 in respect of the Borrower, a certificate of status or compliance or the equivalent thereof from the jurisdiction of its incorporation or formation issued by the appropriate authorities in its jurisdiction of incorporation or formation and, if applicable, in the jurisdiction of its principal place of business;

FINANCIAL DUE DILIGENCE

7.1.2 the Collateral Agent shall have received the forward-looking financial modeling information constructed in Excel[©] with respect to the Borrower in a format consistent with that previously provided to the Collateral Agent prior

to the Closing Date and consistent with the requirements set out in Schedule "Y";

- 7.1.3 the Collateral Agent shall have received a detailed opening balance sheet for the Borrower, in form and substance reasonably satisfactory to the Collateral Agent;
- 7.1.4 the Collateral Agent shall have received a certificate from the Borrower confirming that that since January 1, 2014, no event has occurred or failed to occur which has or would have a Material Adverse Effect, dated the Closing Date and duly executed by a Responsible Officer of the Borrower, acting in his capacity as an officer of the Borrower and without personal liability

PROJECT DUE DILIGENCE

- the Funding Vehicle shall have completed, to its satisfaction, a due diligence investigation of the Project and the Borrower, such investigation being in scope, and with results, satisfactory to the Funding Vehicle, in all respects and without limiting the generality of the foregoing, Tax and insurance matters, the legal structure of the Borrower, the business and Assets of the Borrower, the forward-looking financial modeling information constructed in Excel[®] with respect to the Borrower, and the Collateral Agent shall have received such financial, business and other information regarding the Project as it, the Insurance Consultant or the Independent Engineer shall have requested, including:
 - 7.1.5.1 the Project Plans;
 - 7.1.5.2 the Project Budget;
 - 7.1.5.3 the Project Schedule; and
 - 7.1.5.4 the Initial Material Project Documents and the Authorizations referred to in Part I of Schedule "B";
- 7.1.6 the Collateral Agent shall have received, in form and substance satisfactory to the Collateral Agent, a certificate executed by a Responsible Officer of the Borrower, in his capacity as an officer of the Borrower and without personal liability, attesting that:
 - 7.1.6.1 the Project Budget and the Project Schedule are reasonable estimates of the costs and time periods respectively required in order for the Project to be built in accordance with the Project Plans;
 - 7.1.6.2 the forward-looking financial modeling information constructed in Excel© with respect to the Borrower is based upon assumptions

- believed to be reasonable by the Borrower as of the date that they were prepared;
- 7.1.6.3 the construction of the Project is, in all material respects, in compliance with the Project Plans and in accordance with all Applicable Laws (including Environmental Laws) save as disclosed in Schedule "C", is technically feasible, and will allow the Project to perform in compliance, in all material respects, with all Material Project Documents and Authorizations; and
- 7.1.6.4 the Borrower has or has had obtained all Authorizations which, under Applicable Law are necessary to obtain in connection with the Project and the Initial Material Project Documents, save as disclosed in Part V of Schedule "B" and other than those not yet required under Applicable Law and which are expected to be obtainable in the ordinary course, as and when so required;
- 7.1.7 the Collateral Agent shall have received in form and substance satisfactory to the Collateral Agent, an interim report from the Independent Engineer, addressing the Project as set out in scope of work attached to the IE Contract;
- 7.1.8 the Collateral Agent shall have received, in form and substance satisfactory to the Collateral Agent, a report from the Insurance Consultant, addressing the insurance coverage for the Project;
- the Borrower shall have or have had obtained, and by way of access to the electronic data room, the Collateral Agent and the Independent Engineer shall have been given access to copies of, all Authorizations which under Applicable Law are necessary to obtain or have had obtained in connection with the Project, the transactions contemplated by the ML Project Finance Documents and the Initial Material Project Documents (other than as disclosed in Part V of Schedule "B" and those not yet required under Applicable Law and which are expected to be obtainable in the ordinary course, as and when so required), none of the foregoing being subject to any condition or containing any qualification unsatisfactory to the Collateral Agent, and all applicable waiting periods shall have expired without any action being taken by any competent Governmental Authority which would prevent or adversely affect the ability of the Borrower to complete the Project in accordance with the Project Plans;
- 7.1.10 the Collateral Agent shall be satisfied that the funding of the Project Costs shall be made substantially in accordance with and as set forth in Schedule "E";
- 7.1.11 there shall be no litigation, proceedings, counterclaims or investigations pending or, to the Knowledge of the Borrower, threatened by or before any court or Governmental Authority, other than as described in Schedule "F",

challenging or seeking to prohibit the consummation of any of the transactions contemplated in any of the ML Project Finance Documents, the Initial Material Project Documents or any portion of the Project, and which would result in a Material Adverse Effect;

- 7.1.12 to the Knowledge of the Borrower, no Expropriation Event or adverse zoning or usage change proceeding which would result in a Material Adverse Effect shall have occurred or shall have been threatened against the Project;
- 7.1.13 the Borrower shall have established with the Collateral Agent all Borrower Project Accounts required to be established by the Closing Date;

MATERIAL PROJECT DOCUMENTS AND OTHER DOCUMENTS

- 7.1.14 the Collateral Agent shall have received copies of the signed execution version of each of the ML Project Finance Documents and the Initial Material Project Documents, which shall, in each case, be in form and substance satisfactory to the Collateral Agent as well as the Authorizations referred to in Part I of Schedule "B" and the bonds or other performance security required to be delivered under the Initial Material Project Documents;
- 7.1.15 the Collateral Agent shall be satisfied that each of the ML Project Finance Documents, the Initial Material Project Documents and the Authorizations referred to in Part I of Schedule "B" is in full force and effect and that no material default has occurred and is continuing thereunder;
- 7.1.16 the Collateral Agent shall be satisfied that the Borrower is the sole legal and beneficial owner of the Current ML Assets and Rights and that same are free and clear of all Liens except Permitted Encumbrances;

TITLE MATTERS

- 7.1.17 the Collateral Agent shall have received, in form and substance satisfactory to the Collateral Agent, execution search reports and certificates from the Borrower's Real Property Counsel, dated no earlier than three (3) Business Days prior to the Closing Date and thereafter on a monthly basis, indicating that such of the ML Real Property Interests in the Key Sites as are in existence as at such date are free and clear of all Liens other than Permitted Encumbrances;
- the Collateral Agent shall have received, in form and substance satisfactory to the Collateral Agent, the title opinions of the Borrower's Real Property Counsel, dated no earlier than three (3) Business Days prior to the Closing Date, to the effect that the Borrower is the duly registered and lawful owner by good and marketable freehold or leasehold title, as the case may be, of such of the Key Sites as are in existence as at such date and that the said interests in the Key Sites are free and clear of all Liens, except Permitted Encumbrances;

MATTERS RELATING TO SECURITY

- 7.1.19 the Collateral Agent shall have received all ML Security Documents duly executed by each appropriate Person, together with evidence in form and substance satisfactory to the Collateral Agent, that all Registrations and other actions necessary or desirable to give the Collateral Agent valid, effective and perfected first ranking Liens in each of the Borrower's Assets, subject only to Permitted Encumbrances, have been effected;
- 7.1.20 the Collateral Agent shall have received results of searches of public records by the Borrower's Counsel under the Applicable Laws of such jurisdictions which the Collateral Agent determines appropriate, relating to Lien filings and registrations which may have been made with respect to the Borrower and the Borrower's personal property Assets and the results of such searches shall be as current to the Closing Date as reasonably practicable and shall reveal no Liens other than Permitted Encumbrances and Liens for which releases and discharges are referred to in subsection 7.1.21;
- 7.1.21 the Collateral Agent shall have received evidence, in form and substance satisfactory to the Collateral Agent, that concurrently with the making of the first ML Drawdown hereunder, it shall receive releases and discharges with respect to all Liens, if any, other than Permitted Encumbrances affecting the Borrower, or the Borrower's Assets, duly executed by all of the Persons who benefit from such Liens or have been granted security on such Assets;

INSURANCE

- 7.1.22 the Collateral Agent shall have received, in form and substance satisfactory to the Collateral Agent, copies of certificates of insurance, if any, evidencing all insurance covering the Borrower and its Assets and required to be maintained by the Borrower pursuant to subsection 10.6.1 and naming the Collateral Agent as additional insured and, if appropriate, as first loss payee, accompanied with a satisfactory mortgagee clause, it being understood that such certificates of insurance will be made available promptly after the execution of this Agreement;
- 7.1.23 with respect to any insurance required to be maintained pursuant to any of the Initial Material Project Documents, the Collateral Agent shall have received, in form and substance satisfactory to the Collateral Agent, copies of certificates of insurance evidencing all such insurance and naming the Collateral Agent as additional insured and, if appropriate, as first loss payee, accompanied with a standard mortgagee clause;

LEGAL OPINIONS

7.1.24 the Collateral Agent shall have received the legal opinions of the Borrower's Counsel and the Borrower's Real Property Counsel, dated the Closing Date,

regarding the Borrower, and in form and substance satisfactory to the Collateral Agent.

Such legal opinions shall cover such matters incident to the transactions contemplated by the ML Project Finance Documents and the Initial Material Project Documents as the Collateral Agent may request, including the legality, validity, binding nature and enforceability of each such agreement;

COMPLIANCE

- 7.1.25 the representations and warranties made under this Agreement are true, accurate and complete in all material respects as at the Closing Date;
- 7.1.26 the Collateral Agent shall have received a certificate from the Borrower as to matters of fact, in form and substance satisfactory to the Collateral Agent dated the Closing Date duly executed by a Responsible Officer of the Borrower, acting in his capacity as an officer of the Borrower and without personal liability; and
- 7.1.27 No ML Event of Default shall have occurred and be continuing.

7.2 Conditions Precedent to First ML Drawdown under the ML Construction Facility

Subject to and upon compliance with all of the relevant terms and conditions of this Agreement, at any time during the Construction Period, upon or following the ML Initial Conditions Precedent having been met or, as the case may be, waived by the Collateral Agent, the Borrower can request a first ML Drawdown under the ML Construction Facility to be used exclusively for purposes of funding:

- 7.2.1 the payment of all reasonable fees which each of the Collateral Agent, the Funding Vehicle, the Administrator, the Indenture Trustee, the Fiscal Agent and the Issuer Trustee is entitled to receive on or prior to the date of such ML Drawdown under the Funding Transaction Documents, this Agreement and any agreement with the Borrower entered into in connection herewith;
- the reimbursement of all reasonable expenses and costs (including reasonable legal expenses and costs) which each of the Funding Vehicle, the Collateral Agent, the Administrator, the Indenture Trustee, the Fiscal Agent, the Issuer Trustee and Canada has incurred on or prior to the date of such ML Drawdown in connection with the ML FV Project Finance Documents, the Funding Transaction Documents or the ML Project Finance Documents, and in respect of which any one thereof has requested the Borrower to reimburse same on the date of such ML Drawdown, provided, however, that such expenses and costs in respect of Canada shall be limited to reasonable third party expenses and costs of the advisors engaged by Canada up to the date of such ML Drawdown in connection with the ML Project Finance Documents and the Initial Material Project Documents; and

7.2.3 the Working Capital Reserve Account in an amount not to exceed the Maximum WCR Amount;

provided, however, that the following conditions (the "First ML Drawdown Conditions Precedent") are met to the satisfaction of the Collateral Agent, or waived by it:

FUNDING REQUEST

7.2.4 the Collateral Agent shall have received a Funding Request at least one (1) Business Day before the date on which such ML Drawdown is expected to occur:

COMPLIANCE

- 7.2.5 the representations and warranties made under this Agreement are true, accurate and complete in all material respects as at the date of such ML Drawdown; and
- 7.2.6 No ML Event of Default shall have occurred and be continuing.

7.3 Conditions Precedent to ML Drawdowns under the ML Construction Facility

Subject to and upon compliance with all of the relevant terms and conditions of this Agreement, at any time during the Construction Period, upon or following the ML Initial Conditions Precedent and the First ML Drawdown Conditions Precedent having been met or, as the case may be, waived by the Collateral Agent, the Borrower can request a ML Drawdown (other than the DSRA Drawdown) under the ML Construction Facility (and to the extent that the provisions of Section 7.8 are applicable, a WCR Release), only if the following conditions are met to the satisfaction of the Collateral Agent, or waived by it (provided, however, that with respect to any portion of any Advance to be used to pay Soft Costs comprised of the interest, costs, fees and arrears interest and other amounts on the ML Construction Loan, the ML Financing Fee and any Sinking Fund Payment, such portion of such Advance shall be advanced on the relevant ML Drawdown Date notwithstanding that the conditions set forth in this Section may not have been met, in whole or in part):

FUNDING REQUEST OR FINAL FUNDING REQUEST

7.3.1 the Collateral Agent and the Independent Engineer shall have received a Funding Request or the Final Funding Request, as the case may be, accompanied by supporting documentation for such Funding Request or Final Funding Request in the form attached hereto as Schedule "CC";

CONSTRUCTION REPORT

7.3.2 the Collateral Agent and the Independent Engineer shall have received in the same month as the month of delivery of a Funding Request or the Final

Funding Request pursuant to subsection 7.3.1, and in accordance with the provisions of Section 11.3, a copy of the most recent Construction Report;

7.3.3 the Collateral Agent shall have received one copy of the Independent Engineer's Confirmation.

Where the Funding Request or Final Funding Request or any of the supporting documentation or information intended to form part thereof are, in the opinion of the Collateral Agent or the Independent Engineer, either inadequate, incomplete or insufficient, the Collateral Agent shall notify the Borrower of such fact and of the required additional or different documentation or information:

MATERIAL PROJECT DOCUMENTS

- the Collateral Agent shall have received copies of the signed execution version of each of the Additional Material Project Documents entered into since the Closing Date or the date of the last Funding Request to the date of the relevant Funding Request or Final Funding Request, which, in each case, shall be in form and substance satisfactory to the Collateral Agent;
- 7.3.5 no material default shall have occurred and be continuing under any Material Project Document or any Authorization in effect with respect to the Project which would result in a Material Adverse Effect;
- 7.3.6 the Borrower shall have or have had obtained all Authorizations (to the extent not already obtained) which, under Applicable Law, as of the date of the relevant Funding Request or Final Funding Request, are necessary to have been obtained in connection with the Project and the work currently being performed on the Project, none of the foregoing being subject to any condition or containing any qualifications unsatisfactory to the Collateral Agent, based on the report issued by the Independent Engineer;

INSURANCE

7.3.7 with respect to any insurance required to be maintained pursuant to subsection 10.6.2 or any of the Additional Material Project Documents referred to in subsection 7.3.4 and to the extent not already covered by the certificate delivered pursuant to subsection 7.1.22 or 7.1.23, the Collateral Agent shall have received, in form and substance satisfactory to the Collateral Agent, copies of certificates of insurance evidencing all such insurance and naming the Collateral Agent as additional insured and, if appropriate, as first loss payees, accompanied with a standard mortgagee clause;

TITLE MATTERS

7.3.8 the Collateral Agent shall have received, in form and substance satisfactory to the Collateral Agent, a certificate by a Responsible Officer of the Borrower, in

his capacity as an officer of the Borrower and without personal liability, attesting or providing that the Borrower has no Knowledge of any Liens other than Permitted Encumbrances having been registered against such of the ML Real Property Interests comprising the Key Sites as are in existence as at such time;

the Collateral Agent, a certificate by a Responsible Officer of the Borrower, in his capacity as an officer of the Borrower and without personal liability, attesting or providing that as regards such of the ML Real Property Interests as are in existence as at such time, all realty taxes that are due and payable have been fully paid;

COMPLIANCE AND DISBURSEMENT UNDER THE ML CONSTRUCTION FACILITY

- 7.3.10 the Collateral Agent shall have received a ML Draw Request within the time periods herein provided requesting a ML Drawdown on the ML Drawdown Date;
- 7.3.11 the Collateral Agent shall have determined that the amount of the requested ML Drawdown is not greater than the Available ML Construction Facility;
- the Collateral Agent shall have received evidence, in form and substance satisfactory to the Collateral Agent that all contractors, subcontractors and other Persons working on the construction or towards the Commissioning of the Project have been paid all amounts owing to them pursuant to the Material Project Documents, save for any amount being claimed and contested, any amounts that have been paid into court or otherwise posted pursuant to such contestation, and any required holdbacks and the amounts to be paid to them out of the proceeds of the requested ML Drawdown;
- at any time (i) prior to the date on which the DER first becomes equal to 70%, provided, however, that each of the conditions precedent set forth in this Section are at such time met to the satisfaction of the Collateral Agent or, as the case may be, waived by the Collateral Agent, the amount of the requested ML Drawdown shall be disbursed in accordance with the terms hereof without any equity Investment being required and (ii) following the date on which DER first becomes equal to 70%, the Base Equity Contribution in the proportion required pursuant to the definition of "Equity Rateable Share" shall have been made;
- 7.3.14 except to the extent that they are stated to be made as of a specific date, the representations and warranties made under this Agreement are true, accurate and complete in all material respects as of the date of such requested ML Drawdown; and
- 7.3.15 no ML Event of Default shall have occurred and be continuing.

7.4 <u>Conditions Precedent to ML Drawdown under the ML Construction Facility on Account of the DSRA Drawdown</u>

Subject to and upon compliance with all of the relevant terms and conditions of this Agreement, at any time during the Construction Period, upon or following the ML Initial Conditions Precedent and the First ML Drawdown Conditions Precedent having been met or, as the case may be, waived by the Collateral Agent, the Borrower can request a single ML Drawdown under the Available ML Construction Facility on account of the DSRA Drawdown (and to the extent that the provisions of Section 7.8 are applicable, a WCR Release), but only if the following conditions are met to the satisfaction of the Collateral Agent, or, as the case may be, waived by the Collateral Agent:

- the Collateral Agent and the Independent Engineer shall have received a ML Draw Request within the time periods herein provided requesting a ML Drawdown on the ML Drawdown Date in an amount equal to the DSRA Drawdown together with a Funding Request or a Final Funding Request, as the case may be, prior to the last day of the month during which such Funding Request or Final Funding Request, as the case may be, shall have been delivered;
- 7.4.2 the DSRA Equity Contribution shall have been deposited into the Borrower Project Funding Account;
- 7.4.3 the Collateral Agent shall have determined that the amount of the requested ML Drawdown is not greater than the Available ML Construction Facility;
- 7.4.4 except to the extent that they are stated to be made as of a specific date, the representations and warranties made under this Agreement are true, accurate and complete in all material respects as of the date of such requested ML Drawdown; and
- 7.4.5 no ML Event of Default shall have occurred and be continuing.

7.5 <u>Conditions Precedent to ML Drawdown under the ML Construction Facility on Account of Post-Commissioning Drawdowns</u>

Subject to and upon compliance with all of the relevant terms and conditions of this Agreement, at any time during the two (2) year period following the end of the Construction Period, following the ML Initial Conditions Precedent and the First ML Drawdown Conditions Precedent having been met or, as the case may be, waived by the Collateral Agent, the Borrower can request a ML Drawdown under the Available ML Construction Facility on account of a Post-Commissioning Drawdown (and to the extent that the provisions of Section 7.8 are applicable, a WCR Release), but only if the following conditions are met to the satisfaction of the Collateral Agent, or, as the case may be, waived by the Collateral Agent:

7.5.1 the Collateral Agent and the Independent Engineer shall have received a ML Draw Request within the time periods herein provided requesting a ML

Drawdown on the ML Drawdown Date in an amount equal to the Post-Commissioning Drawdown together with a Post-Commissioning Funding Request prior to the last day of the month during which such Post-Commissioning Funding Request shall have been delivered;

- 7.5.2 the Base Equity Contribution in the proportion required pursuant to the definition of "Equity Rateable Share" shall have been deposited into the Borrower Project Funding Account;
- 7.5.3 the Collateral Agent shall have determined that the amount of the requested ML Drawdown is not greater than the Available ML Construction Facility;
- 7.5.4 except to the extent that they are stated to be made as of a specific date, the representations and warranties made under this Agreement are true, accurate and complete in all material respects as of the date of such requested ML Drawdown; and
- 7.5.5 no ML Event of Default shall have occurred and be continuing.

7.6 <u>Conditions Precedent to Commissioning</u>

The Commissioning Date shall occur upon all of the following conditions precedent (the "Conditions Precedent to Commissioning") having been met to the satisfaction of the Collateral Agent or, as the case may be, waived by the Collateral Agent:

- 7.6.1 the Collateral Agent and the Independent Engineer shall have received the Commissioning Certificate;
- 7.6.2 the Collateral Agent shall have received, in form and substance satisfactory to the Collateral Agent, a certificate from the Independent Engineer, certifying, *inter alia*, that in its opinion all information, opinions and calculations given and made in the Commissioning Certificate are reasonable and accurate in all material respects and have been verified by the Independent Engineer and that:
 - 7.6.2.1 Commissioning Tests have been achieved and it has no reason to believe that the Project has not been constructed in all material respects in accordance with the Project Plans and Good Utility Practice; and
 - 7.6.2.2 the commissioning and interconnection tests have been performed and met in accordance with the Material Project Documents.
- 7.6.3 the Collateral Agent shall have received, in form and substance satisfactory to the Collateral Agent, updated execution search reports and certificates from the Borrower's Real Property Counsel, dated no earlier than three (3) Business Days prior to the Commissioning Date, indicating that since the effective date of the most recent execution search reports and certificates delivered

hereunder, no Liens other than Permitted Encumbrances have been registered against any of such of the ML Real Property Interests as are in existence as at such time:

- the Collateral Agent shall have received, in form and substance satisfactory to the Collateral Agent, a certificate by a Responsible Officer of the Borrower, in his capacity as an officer of the Borrower and without personal liability, attesting or providing that as regards such of the ML Real Property Interests as are in existence as at such time, all realty taxes that are due and payable have been fully paid;
- 7.6.5 the Collateral Agent shall have received, in form and substance satisfactory to the Collateral Agent, a certificate by a Responsible Officer of the Borrower, in his capacity as an officer of the Borrower and without personal liability, attesting or providing that all contractors, subcontractors and other Persons working on the construction or towards the Commissioning of the Project have been paid all amounts properly owing to them pursuant to the Material Project Documents other than Punch List Items and Demobilization List Items;
- 7.6.6 the Collateral Agent shall have received evidence, in form and substance satisfactory to the Collateral Agent, of the establishment and funding of the DSRA as required by the terms hereof;
- 7.6.7 the Collateral Agent shall have received evidence satisfactory to the Independent Engineer that all work on the Project to be inspected in accordance with Good Utility Practice as of such date by any Governmental Authorities having jurisdiction has been duly inspected and approved by such authorities:
- the Collateral Agent shall have received, in form and substance satisfactory to the Collateral Agent, without duplication of any item already received hereunder, copies of certificates of insurance evidencing all insurance covering the Borrower and required to be maintained by the Borrower pursuant to Section 10.6 and naming the Collateral Agent as additional insured and, if appropriate, as first loss payees, accompanied with a satisfactory mortgagee clause;
- 7.6.9 the Borrower shall have or have had obtained all Authorizations (to the extent not already obtained) which under Applicable Law are necessary to obtain or have obtained, in the opinion of the Collateral Agent in connection with the operation of the Project, none of the foregoing being subject to any condition or containing any qualifications unsatisfactory to the Collateral Agent, without duplication of any item already received hereunder, and all applicable waiting periods shall have expired; and

7.6.10 each of the conditions precedent set forth in Section 7.4 shall have been met to the satisfaction of the Collateral Agent, or, as the case may be, waived by the Collateral Agent.

Once all of the conditions precedent set forth in this Section 7.6 shall have been met to the satisfaction of the Collateral Agent or, as the case may be, waived by the Collateral Agent, the Collateral Agent shall issue the Commissioning Confirmation.

7.7 <u>Conditions Precedent to WCR Release from the Working Capital Reserve Account</u> at any Time during the Construction Period

Subject to and upon compliance with all of the relevant terms and conditions of this Agreement, at any time during the Construction Period, following the ML Initial Conditions Precedent and the First ML Drawdown Conditions Precedent having been met or, as the case may be, waived by the Collateral Agent (and provided that the WCR Release Date occurs between two successive ML Drawdown Dates), the Borrower can request, at any time and from time to time, a WCR Release from the Working Capital Reserve Account for deposit into the Borrower Disbursement Account but only if the following conditions are met to the satisfaction of the Collateral Agent, or, as the case may be, waived by the Collateral Agent:

- 7.7.1 the Collateral Agent and the Independent Engineer shall have received a WCR Release and Equity Funding Notice at least one (1) Business Day prior to the WCR Release Date requesting a WCR Release on the WCR Release Date in an amount that is less than or equal to the amount on deposit in the Working Capital Reserve Account at such time. Each WCR Release and Equity Funding Notice:
 - 7.7.1.1 shall provide information sufficient to justify the necessity to fund Eligible Project Costs by way of WCR Release prior to the subsequent ML Drawdown Date; and
 - 7.7.1.2 where the amount on deposit in the Working Capital Reserve Account is insufficient for the purposes of defraying Eligible Project Costs to be paid on the WCR Release Date, and consequently an equity Investment in the Borrower is intended to be made in an amount equal to the difference between such Eligible Project Costs and such amount on deposit in the Working Capital Reserve Account, the WCR Release and Equity Funding Notice shall provide notice of such equity Investment;
- 7.7.2 except to the extent that they are stated to be made as of a specific date, the representations and warranties made under this Agreement are true, accurate and complete in all material respects as of the date of such requested WCR Release; and
- 7.7.3 no ML Event of Default shall have occurred and be continuing.

7.8 <u>Conditions Precedent to WCR Release from the Working Capital Reserve Account</u> for Purposes of ML Drawdowns

Subject to and upon compliance with all of the relevant terms and conditions of this Agreement, at any time during the Construction Period, following the ML Initial Conditions Precedent and the First ML Drawdown Conditions Precedent having been met or, as the case may be, waived by the Collateral Agent (and where the Available ML Construction Facility is nil, or where as a result of a ML Drawdown that is to be concurrent with the relevant WCR Release, the Available ML Construction Facility will be nil), the Borrower can request, at any time and from time to time, a WCR Release from the Working Capital Reserve Account for purposes of effecting a ML Drawdown and for deposit into the Borrower Project Funding Account but only if the following conditions are met to the satisfaction of the Collateral Agent, or, as the case may be, waived by the Collateral Agent:

- 7.8.1 if such WCR Release is requested in connection with a funding of Eligible Project Costs other than Post-Commissioning Eligible Project Costs and the DSRA, the conditions precedent set forth in Section 7.3 shall apply, *mutatis mutandis*; or
- 7.8.2 if such WCR Release is requested in connection with a funding of Post-Commissioning Eligible Project Costs and the DSRA, the conditions precedent set forth in Sections 7.4 and 7.5 shall apply, *mutatis mutandis*.

ARTICLE 8

ML PROJECT ACCOUNTS AND APPLICATION OF FUNDS

8.1 **Borrower Project Funding Account**

On or prior to the Closing Date, the Borrower shall establish with the Account Bank an account called "Borrower – Project Funding Account" at the Account Bank Branch (the "Borrower Project Funding Account").

- 8.1.1 During the Construction Period:
 - 8.1.1.1 there shall be deposited directly into the Borrower Project Funding Account (i) the proceeds of all Advances under ML Construction Facility made under this Agreement, other than (a) Advances under the ML Construction Facility made under this Agreement required to fund the Debt Rateable Share of the Minimum DSRA Requirement, (b) [intentionally deleted], (c) [intentionally deleted], (d) Advances under Construction Facility made under this Agreement to fund the Working Capital Reserve Account up to the Maximum WCR Amount, and (e) an Advance under the ML Construction Facility made under subsection 2.9.2, (ii) the proceeds of all Advances

under the ML Construction Facility made under this Agreement required to fund the Debt Rateable Share of any additional amounts into the DSRA to meet the then current Minimum DSRA Requirement, (iii) [intentionally deleted], (iv) [intentionally deleted], (v) the proceeds of all Advances under the ML Construction Facility made under this Agreement to fund the Working Capital Reserve Account up to the Maximum WCR Amount, (vi) [intentionally deleted], (vii) the proceeds of any portion of any DSRA Equity Contribution required to fund any additional amounts into the DSRA to meet the then current Minimum DSRA Requirement,, (viii) the proceeds of any portion of any Base Equity Contribution, (ix) the proceeds of any Additional Debt, (x) [intentionally deleted], (xi) [intentionally deleted]. (xii) [intentionally deleted], (xiii) [intentionally deleted], (xiv) [intentionally deleted], (xv) [intentionally deleted], (xvi) any amounts to be transferred into the Borrower Project Funding Account pursuant to subsections 8.3.3 and 8.3.4 8.6.1.3 (xvii) all reimbursements paragraph Governmental Authorities of Sales Taxes, and (xviii) any other amounts received by the Borrower during the Construction Period, including insurance or warranty proceeds (but, with respect to insurance proceeds relating to any damage or destruction of the Project, only to the extent they are deposited into the Borrower Project Funding Account pursuant to paragraph 8.6.1.3), liquidated damages and any amounts due and payable to the Borrower;

- amounts in the Borrower Project Funding Account (other than amounts contemplated in paragraphs 8.1.1.3, 8.1.1.4, 8.1.1.5 or 8.1.1.6) shall be withdrawn from the Borrower Project Funding Account and deposited into the Borrower Disbursement Account to fund payment of amounts by the Borrower pursuant to an approved Funding Request or Final Funding Request, subject to the application of funds in the following order of priority: to pay (a) firstly, rateably, the Various Agent Costs and Expenses, (b) secondly, the Funding Vehicle Project Costs and Expenses, (c) thirdly, the Canada Project Costs, including for purposes of effecting any Sinking Fund Payments into the Sinking Fund Account:
- 8.1.1.3 amounts in the Borrower Project Funding Account deposited therein pursuant to clause (v) of paragraph 8.1.1.1 shall be transferred only to the Working Capital Reserve Account;
- 8.1.1.4 amounts in the Borrower Project Funding Account deposited therein pursuant to clauses (ii) and (vii) of paragraph 8.1.1.1 shall be transferred only to the DSRA;

8.1.1.5 [intentionally deleted];

8.1.1.6 [intentionally deleted];

8.1.1.7 funds in the Borrower Project Funding Account and forming part of the Aggregate Borrower Project Funding Account Balances shall remain in the Borrower Project Funding Account to be applied for purposes of subsequent Funding Requests as per clause (iv) of the definition of "Funding Request", or, as applicable, the Final Funding Request as per clauses (v), (vi) and (xvii) of the definition of "Final Funding Request".

8.1.2 During the Operating Period:

- 8.1.2.1 there shall be deposited directly into the Borrower Project Funding Account: (i) ML Project Revenues, (ii) [intentionally deleted], (iii) the proceeds of any Additional Debt (other than the proceeds of Additional Debt used by the Borrower to pay Sustaining Costs), (iv) any amounts to be transferred into the Borrower Project Funding Account pursuant to subsections 8.3.3 and 8.3.4 and paragraphs 8.6.1.3 and 8.7.2.3, (v) all reimbursements from Governmental Authorities of Sales Taxes, (vi) any other amounts received by the Borrower during the Operating Period, including insurance or warranty proceeds (but, with respect to insurance proceeds relating to any damage or destruction of the Project, only to the extent they are deposited into the Borrower Project Funding Account pursuant to paragraph 8.6.1.3), liquidated damages, and (vii) any Investments in the Borrower or any proceeds of Additional Debt, in each case intended to be used by the Borrower to pay Sustaining Costs;
- 8.1.2.2 funds in the Borrower Project Funding Account shall be applied, from time to time, including for greater certainty, more than once per month, in the following order of priority:
 - (a) firstly, for rateable application towards payment of the Various Agent Costs and Expenses due and payable;
 - (b) secondly, for application towards payment of the Funding Vehicle Project Costs and Expenses;
 - (c) thirdly, for application towards payment of the Canada Project Costs and Expenses;
 - (d) fourthly, for application towards payment of Post-Commissioning Eligible Project Costs pursuant to an approved Post-Commissioning Funding Request;

- (e) fifthly, for application towards payment of Recoverable Operating Costs and Sustaining Costs of the Borrower currently due and payable or reasonably foreseeable for the next thirty (30) days and with respect to which funds have not already been withdrawn from the Borrower Project Funding Account, as well as those of the Funding Vehicle, including taxes as well as all other payments required to be made by the Administrator under the terms of the Administration Agreement;
- (f) sixthly, at any time that any such amount is due, for rateable application towards the payment of (i) all interest in respect of the ML Construction Loan then due and payable; (ii) all principal on the ML Construction Loan, any ML Make-Whole Amount and any amount to be paid into the Sinking Fund Account then due and payable and (iii) all breakage costs and other losses and expenses then due and payable pursuant to the provisions of the Consolidated Transaction Documents;
- (g) seventhly, for application towards payment of Unrecoverable Operating Costs of the Borrower currently due and payable or reasonably foreseeable for the next thirty (30) days and with respect to which funds have not already been withdrawn from the Borrower Project Funding Account, as well as those of the Funding Vehicle, including taxes as well as all other payments required to be made by the Administrator under the terms of the Administration Agreement;
- (h) eighthly, from time to time, paid to the DSRA, up to such amounts as may be required in order for the total amount on deposit in the DSRA to be equal to the then Minimum DSRA Requirement, for application in accordance with subsection 8.3.2;
- (i) ninthly, for application towards payment of any amounts due and payable under Additional Debt, including principal and interest, and fees, costs and expenses; and
- (j) tenthly, on Distribution Dates, (i) provided that the Distribution Conditions are then met, all Distribution Funds in the Borrower Project Funding Account shall be released from the security or other covenants or obligations of the Borrower under this Agreement or the ML Security Documents and applied at the Borrower's option, or (ii) if the Distribution Conditions are not then met, all such

amounts shall be deposited to and retained in the Borrower Distribution Reserve Account for application in accordance with the terms of subsection 8.5.1.

8.2 [Intentionally Deleted]

8.3 **DSRA**

Prior to the Closing Date, the Borrower shall establish with the Account Bank an account called "Borrower – Debt Service Reserve Account" at the Account Bank Branch (the "**DSRA**").

- 8.3.1 During the Construction Period, there shall be transferred to the DSRA all amounts required to be paid thereto from the Borrower Project Funding Account in accordance with the provisions of paragraph 8.1.1.4 and immediately prior to the Commissioning Date, if applicable, there shall be transferred to the DSRA an amount equal to the amount calculated pursuant to paragraph (vi) of the definition of "Final Funding Request".
- 8.3.2 During the Operating Period or during the Construction Period, at any time where the total amount on deposit in the DSRA, plus the amount of any Letter of Credit provided to the Collateral Agent pursuant to subsection 8.3.5, is less than the Minimum DSRA Requirement as at the then most recent Minimum DSRA Requirement Fixing Date, there shall be deposited directly into the DSRA (i) amounts on deposit in the Borrower Project Funding Account in excess of the amounts applied pursuant to clauses (a) to 8.1.2.2(g) of paragraph 8.1.2.2 or, (ii) at the option of the Borrower, amounts on deposit in the Liquidity Reserve Account, until the total amount on deposit in the DSRA equals the then Minimum DSRA Requirement.
- 8.3.3 During the Operating Period or during the Construction Period, on a monthly basis at any time where the total amount on deposit in the DSRA exceeds the Minimum DSRA Requirement as at such time, the amount of such excess shall be transferred to the Borrower Project Funding Account.
- 8.3.4 During the Operating Period or during the Construction Period, on a monthly basis at any time that there shall be on deposit in the DSRA any ML Income on Account Balances, such ML Income on Account Balances shall be transferred to the Borrower Project Funding Account.
- 8.3.5 During the Operating Period or during the Construction Period, the Borrower shall be permitted at any time to deliver to the Collateral Agent a Letter of Credit issued under a letter of credit facility of Emera or a Subsidiary of Emera (other than the Borrower) for any amount up to the Minimum DSRA Requirement as at then most recent Minimum DSRA Requirement Fixing Date. The total amount required to be on deposit in the DSRA at any time while the Collateral is in possession of such a valid Letter of Credit shall be reduced by the amount of such Letter of Credit.

8.4 **Borrower Disbursement Account**

Prior to the Closing Date, the Borrower shall establish with the Account Bank in the name of the Borrower an account entitled "Borrower – Disbursement Account" at the Account Bank Branch (the "Borrower Disbursement Account"). For greater certainty, funds in the Borrower Disbursement Account shall be disbursed by the Borrower and not the Collateral Agent to pay Project Costs, Operating Costs and Sustaining Costs as set out herein. The Borrower Disbursement Account shall be subject to a blocked account agreement pursuant to subsection 6.1.3, but will be controlled by the Borrower unless the Collateral Agent gives notice to the Borrower under such blocked account agreement during the continuance of an ML Event of Default that the Collateral Agent is taking control of the Borrower Disbursement Account.

8.4.1 During the Construction Period:

- 8.4.1.1 there shall be deposited directly into the Borrower Disbursement Account (i) all amounts to be paid thereto from the Working Capital Reserve Account in accordance with the provisions of paragraph 8.10.2.1 and (ii) the proceeds of any equity Investment to which reference is made in paragraph 7.7.1.2; and
- there shall be deposited, from time to time, from the Borrower Project Funding Account into the Borrower Disbursement Account the amounts contemplated in paragraph 8.1.1.2 to be released and applied by the Borrower pursuant to an approved Funding Request or Final Funding Request to pay in the following order of priority:

 (a) firstly, rateably, the Various Agent Costs and Expenses,

 (b) secondly, the Funding Vehicle Project Costs and Expenses,

 (c) thirdly, the Canada Project Costs and Expenses and

 (d) fourthly, the Other Project Costs.

8.4.2 During the Operating Period:

- 8.4.2.1 there shall be deposited, from time to time, from the Borrower Project Funding Account into the Borrower Disbursement Account the amounts contemplated in clauses (a) to (e) and (g) of paragraph 8.1.2.2 to be released and applied by the Borrower to pay in the following order of priority: (a) firstly, rateably, the Various Agent Costs and Expenses, (b) secondly, the Funding Vehicle Project Costs and Expenses, (c) thirdly, the Canada Project Costs and Expenses, (d) fourthly, Post-Commissioning Eligible Project Costs pursuant to an approved Post-Commissioning Funding Request, and (e) fifthly, Operating Costs and Sustaining Costs of the Borrower.
- 8.4.3 If the total amount of actual Project Costs, Operating Costs and Sustaining Costs paid from the Borrower Disbursement Account by the Borrower is less

than the total amount deposited into the Borrower Disbursement Account from the Borrower Project Funding Account for any month, the excess amount shall be deposited by the Borrower back into the Borrower Project Funding Account.

8.4.4 If the total amount of actual Project Costs, Operating Costs and Sustaining Costs to paid from the Borrower Disbursement Account by the Borrower is greater than the total amount deposited into the Borrower Disbursement Account from the Borrower Project Funding Account for any month, the shortfall amount shall be brought forward by the Borrower and included in the subsequent ML Draw Request.

8.5 **Borrower Distribution Reserve Account**

Prior to the Commissioning Date, the Borrower shall establish with the Account Bank in the name of the Borrower an account entitled "Borrower – Distribution Reserve Account" at the Account Bank Branch (the "Borrower Distribution Reserve Account").

- 8.5.1 During the Operating Period:
 - 8.5.1.1 there shall be deposited, from time to time, into the Borrower Distribution Reserve Account amounts on deposit in the Borrower Project Funding Account in excess of the amounts applied pursuant to clauses (a) to (i) of paragraph 8.1.2.2 and which are required to be deposited therein pursuant to clause (j) of paragraph 8.1.2.2.
 - 8.5.1.2 from time to time, on Distribution Dates, funds in the Borrower Distribution Reserve Account shall be released from the security or other covenants or obligations of the Borrower under this Agreement or the ML Security Documents and applied at the Borrower's option, provided that all of the Distribution Conditions are then met.

8.6 **Borrower Insurance Reserve Account**

Prior to the Closing Date, the Borrower shall establish with the Account Bank in the name of the Borrower an account entitled "Borrower – Insurance Reserve Account" at the Account Bank Branch (the "Borrower Insurance Reserve Account").

- 8.6.1 During the Construction Period:
 - 8.6.1.1 there shall be deposited, from time to time, into the Borrower Insurance Reserve Account the insurance proceeds contemplated in paragraph 10.6.6.1 to be released and applied by the Borrower to the repair and restoration of the Project.

- 8.6.1.2 there shall be deposited, from time to time, into the Borrower Insurance Reserve Account the insurance proceeds contemplated in paragraphs 10.6.6.1 and 10.6.6.3 to be released and applied by the Borrower to the repair and restoration of the Project, subject to the Repair Conditions having been satisfied and to the provisions of subsection 10.6.7.
- 8.6.1.3 insurance proceeds remaining in the Borrower Insurance Reserve Account following the application of paragraphs 8.6.1.1 and 8.6.1.2, and to the extent the repairs and restorations intended to be effected with such insurance proceeds have been fully completed, shall be deposited into the Borrower Project Funding Account.

8.6.2 During the Operating Period:

- 8.6.2.1 there shall be deposited, from time to time, into the Borrower Insurance Reserve Account the insurance proceeds contemplated in paragraph 10.6.6.1 to be released and applied by the Borrower to the repair and restoration of the Project.
- 8.6.2.2 there shall be deposited, from time to time, into the Borrower Insurance Reserve Account the insurance proceeds contemplated in paragraphs 10.6.6.1 and 10.6.6.3 to be released and applied by the Borrower to the repair and restoration of the Project, subject to the Repair Conditions having been satisfied and to provisions of subsection 10.6.7.
- 8.6.2.3 insurance proceeds remaining in the Borrower Insurance Reserve Account following the application of paragraph 8.6.2.1 and 8.6.2.2, and to the extent the repairs and restorations intended to be effected with such insurance proceeds have been fully completed, shall be deposited into the Borrower Project Funding Account.

8.7 **Sinking Fund Account**

Prior to the Closing Date, the Borrower shall establish with the Account Bank in the name of the Borrower an account entitled "Borrower – Sinking Fund Account" at the Account Bank Branch (the "Sinking Fund Account").

- 8.7.1 On the date of the Advance relating to the Final Funding Request, there shall be deposited into the Sinking Fund Account the amounts required to be deposited therein pursuant to Section 2.9;
- 8.7.2 Starting from the first Sinking Fund Deposit Date:
 - 8.7.2.1 there shall be deposited, from time to time, into the Sinking Fund Account the amounts required to be deposited therein pursuant to clause (d) of paragraph 8.1.1.2 and clause (f) of paragraph 8.1.2.2;

- 8.7.2.2 there shall be transferred, on each FV Bond Maturity Date, as applicable, from the Sinking Fund Account to the Borrower Project Funding Account an amount equal to the lesser of the amount then on deposit in the Sinking Fund Account and the amount of principal on the ML Construction Loan then due and payable; and
- 8.7.2.3 on a monthly basis, at any time that there shall be on deposit in the Sinking Fund Account any ML Income on Account Balances, such ML Income on Account Balances shall be transferred to the Borrower Project Funding Account, provided, however, that the balance remaining thereafter in the Sinking Fund Account is not less than the total amount determined by aggregating the amounts indicated in each applicable schedule to Exhibit B with respect to the date of the proposed transfer.

8.8 <u>Cost Overrun Escrow Account</u>

Prior to the Closing Date, the Borrower shall establish with the Account Bank in the name of the Borrower an account entitled "Borrower – Cost Overrun Escrow Account" at the Account Bank Branch (the "Cost Overrun Escrow Account"). Funds shall be transferred to and from the Cost Overrun Escrow Account in accordance with Section 10.28.

8.9 **Liquidity Reserve Account**

On or prior to the Closing Date, the Borrower shall establish with the Account Bank an account called "Borrower – Liquidity Reserve Account" at the Account Bank Branch (the "Liquidity Reserve Account"). The Borrower may, from time to time, deposit (or cause to be deposited) funds into the Liquidity Reserve Account. Amounts from the Liquidity Reserve Account shall be used solely (i) to fund Project Costs which are not funded out of the Borrower Project Funding Account or costs approved by the Collateral Agent, (ii) to pay Operating Costs and Sustaining Costs that have not been included in the O&M Budget to prevent or repair any unanticipated damage to the Project or cover operating shortfalls, and (iii) to fund any shortfall in the DSRA to meet the then current Minimum DSRA Requirement.

8.10 Working Capital Reserve Account

On or prior to the Closing Date, the Borrower shall establish with the Account Bank an account called "Borrower – Working Capital Reserve Account" at the Account Bank Branch (the "Working Capital Reserve Account").

- 8.10.1 Pursuant to the first ML Drawdown pursuant to Section 7.2 and from time to time thereafter, there shall be transferred to the Working Capital Reserve Account all amounts required to be paid thereto from the Borrower Project Funding Account in accordance with the provisions of paragraph 8.1.1.3;
- 8.10.2 During the Construction Period:

- 8.10.2.1 subject to subsection 8.10.3, funds in the Working Capital Reserve Account may be withdrawn from the Working Capital Reserve Account for deposit into the Borrower Disbursement Account, the whole subject to Section 7.7; and
- 8.10.2.2 at any time that there shall be on deposit in the Working Capital Reserve Account any ML Income on Account Balances, such ML Income on Account Balances shall be transferred to the Borrower Project Funding Account.
- 8.10.3 Immediately prior to the Commissioning Date, funds in the Working Capital Reserve Account and forming part of the Working Capital Reserve Account Balance shall be applied for purposes of the Final Funding Request as per clauses (v), (vi) and (xvii) of the definition of "Final Funding Request".

8.11 <u>Disbursements by the Collateral Agent</u>

The Funding Vehicle and the Collateral Agent hereby acknowledge and agree that, wheresoever applicable, (i) the Collateral Agent shall effect all transfers of funds between Borrower Project Accounts (other than the Borrower Disbursement Account prior to the exercise by the Collateral Agent of its rights under the blocked account agreement in accordance with Section 8.4 and the Liquidity Reserve Account), (ii) the Collateral Agent shall effect all transfers and deposits of funds into the Borrower Disbursement Account and the Borrower shall effect all disbursements of funds out of the Borrower Disbursement Account, and (iii) the Borrower shall effect all transfers of funds into and out of the Liquidity Reserve Account, provided that all such transfers and disbursements shall be in accordance with the terms of this Article and may occur more than once per month.

ARTICLE 9

REPRESENTATIONS AND WARRANTIES

To induce the Funding Vehicle to make the ML Construction Facility available to the Borrower, the Borrower represents and warrants to and in favour of the Collateral Agent, as follows:

9.1 Existence and Good Standing

The Borrower is a corporation duly and validly incorporated or formed, as applicable, validly existing and in good standing under the Laws of NL and has the legal capacity and power to own its Assets, to carry on its business as now being conducted and as proposed to be conducted under the ML Project Finance Documents in NL and NS and to undertake, carry on the Project and Commission the Project.

9.2 **Authority**

The Borrower has the requisite capacity and power to enter into each of the ML Project Finance Documents and the Material Project Documents to which it is a party and perform its obligations thereunder in accordance with the terms and conditions thereof.

9.3 **Due Authorization**

The Borrower has taken all necessary action to authorize the execution and delivery by it of each ML Project Finance Document and Material Project Document to which it is a party, the creation and performance of its obligations thereunder and the creation of the Liens, if any, over its Assets and the consummation of the transactions contemplated thereunder.

9.4 **Due Execution**

The Borrower has duly executed and delivered each ML Project Finance Document and Material Project Document to which it is a party.

9.5 **Non-Conflict**

None of the authorization, execution, delivery or performance of the ML Project Finance Documents by the Borrower, nor the creation of Liens in favour of the Collateral Agent over the Assets subject thereto, nor the consummation of any of the transactions contemplated in the ML Project Finance Documents and Material Project Documents:

- 9.5.1 requires any Authorization to be obtained or Registration to be made (except such as have already been obtained or made and are now in full force and effect), except (i) the Registration of the ML Security Documents to be made on or about the Closing Date and those to be made against the Future ML Assets and Rights, as and when same are acquired by the Borrower, and (ii) such Authorizations (a) which by the nature thereof need not be obtained until a future date and (b) as pertain to the Material Project Documents, those listed in Part V of Schedule "B";
- 9.5.2 conflicts with, contravenes or gives rise to any default under (i) any of the Organizational Documents of the Borrower, (ii) the provisions of any indenture, instrument, agreement or undertaking to which the Borrower is a party or by which the Borrower or any of its Assets are or may become bound, or (iii) any Applicable Law; or
- 9.5.3 has resulted or will result in the creation or imposition of any Lien (other than Permitted Encumbrances) upon any of the Assets of the Borrower.

9.6 **Enforceability**

Each ML Project Finance Document and Material Project Document to which the Borrower is a party constitutes a valid and legally binding obligation enforceable against it in accordance with its terms, subject only to bankruptcy, insolvency, winding-up, dissolution, administration, reorganization, arrangement or other statutes or judicial decisions affecting the enforcement of creditors' rights in general and to general principles of equity under which specific performance and injunctive relief may be refused by a court in its discretion.

9.7 **Compliance with Law**

The Borrower is in compliance with all Applicable Laws, the non-compliance with which would have a Material Adverse Effect. Moreover, the Borrower is in compliance with all AML Legislation. This section does not apply to Environmental Laws, the compliance of which is addressed specifically in Section 9.20,

9.8 Litigation

Save and except as disclosed in Schedule "F" or as notified to the Collateral Agent in writing after the date hereof, there is no notice of infraction, action, suit or proceeding pending against (nor, to the Knowledge of the Borrower, any notice of infraction, action, suit or proceeding threatened against or in any other manner relating adversely to) the Borrower or any of its Assets in any court or before any arbitrator of any kind or before or by any Governmental Authority, which, if adversely determined (i) would have a Material Adverse Effect or (ii) would prevent Commissioning of the Project.

9.9 Corporate Structure and Location of Assets

Subject to the notices provided by the Borrower to the Collateral Agent pursuant to Section 10.11, Schedule "G" indicates:

- 9.9.1 each Person holding Capital Stock in the Borrower;
- 9.9.2 the type of Capital Stock held by each such Person and the percentage of ownership of such party represented by such Capital Stock;
- 9.9.3 the location of the registered and chief executive offices and the principal place of business of the Borrower and its jurisdiction of organization; and
- 9.9.4 the exact name of the Borrower.

9.10 **No Material Adverse Effect**

No event or events have occurred which have or would have a Material Adverse Effect or would prevent the Borrower from achieving Commissioning of the Project.

9.11 **Financial Statements**

All of the quarterly and annual Financial Statements which have been furnished to the Collateral Agent in connection with this Agreement are complete in all material respects and such Financial Statements fairly present the financial position of the Borrower as of

the dates referred to therein and have been prepared in accordance with Applicable Accounting Principles except that, in the case of quarterly Financial Statements, notes to the statements and audit adjustments required by Applicable Accounting Principles are not included.

9.12 **Accuracy of Information**

To the Knowledge of the Borrower, no information furnished by it to the Collateral Agent in connection with any of the ML Project Finance Documents contains any material misstatement of fact or omits to state a material fact necessary to make the statements contained therein not misleading in light of the circumstances in which they were made and as of the date made. The Borrower has no Knowledge of any undisclosed fact that has or would have a Material Adverse Effect and that has not been otherwise disclosed in writing to the Collateral Agent.

9.13 **Accuracy of Forecasts**

Each financial forecast and projection with respect to the Borrower furnished to the Collateral Agent, including the information and documents delivered pursuant to subsection 7.1.2, was based upon assumptions believed to be reasonable by the Borrower as of the date of preparation.

9.14 All Authorizations Obtained and Registrations Made

All Authorizations and Registrations necessary to permit (i) the Borrower to execute, deliver and perform each ML Project Finance Document and Material Project Document to which it is a party, consummate the transactions contemplated thereby and grant the Liens contemplated in the ML Security Documents to which it is a party, (ii) the Borrower to undertake and carry on the Project and Commission the Project, and (iii) the Borrower to own its Assets and carry on its business, have been obtained or effected and are in full force and effect other than (a) in each case, as disclosed in Part V of Schedule "B", (b) in each case, those not yet required and which are expected to be obtained in the ordinary course as and when required, (c) in each case, the Registrations of the ML Security Documents to be made on or about the Closing Date and those to be made against the Future ML Assets and Rights as and when same are acquired by the Borrower, (d) the CAST Lease and (e) as pertains to the Material Project Documents referred to in paragraph (i) and generally as regards paragraphs (ii) and (iii) for such Authorizations and Registrations the failure to obtain, effect or to be in full force and effect would not have a Material Adverse Effect. The Borrower is in compliance in all material respects with the requirements of all such Authorizations and Registrations applicable to it and there is no award outstanding or litigation existing, pending or threatened which could result in the revocation, cancellation, suspension or any adverse modification of any of such Authorizations and Registrations.

9.15 **Pension Plans**

The Borrower has no Pension Plans.

9.16 **No ML Event of Default**

No ML Event of Default has occurred that has not been disclosed to the Collateral Agent and either remedied (or otherwise ceased to be continuing) or expressly waived in writing by the Collateral Agent.

9.17 ML Assets and Rights

The Borrower is the sole legal and beneficial owner of the Current ML Assets and Rights, free and clear of any encumbrance or Lien other than Permitted Encumbrances and the Current ML Assets and Rights are the Assets required by the Borrower as of the Closing Date to carry on its business as described in Section 9.22. The Borrower will be the sole legal and beneficial owner of the Future ML Assets and Rights, as and when they are acquired, free and clear of any encumbrance or Lien, other than Permitted Encumbrances.

9.18 **Intellectual Property**

The Borrower owns, possesses, is licensed or otherwise has the right to use all Intellectual Property Rights which are necessary for the operation of its business as presently conducted and as proposed to be conducted following Commissioning of the Project without any Known material conflict with the rights of others, except those for which the failure to own or possess (or be licensed or otherwise have the right to use) would not, singly or in the aggregate, have a Material Adverse Effect. To the best Knowledge of the Borrower, there is no violation by any Person of any of its rights with respect to any of the Intellectual Property Rights that would, singly or in the aggregate, have a Material Adverse Effect.

9.19 **Taxes**

The Borrower has:

- 9.19.1 delivered or caused to be delivered as and when required all returns for Taxes to the appropriate Governmental Authorities;
- 9.19.2 paid and discharged all Taxes payable by it when due except with respect to any such Tax which is being contested in good faith by appropriate proceedings and for which appropriate reserves have been provided in its books and as to which neither any Lien (other than a Permitted Encumbrance) has attached nor any foreclosure, distraint, seizure, attachment, sale or similar proceedings shall have been commenced;
- 9.19.3 made provision for appropriate amounts in respect of any Taxes likely to be exigible in accordance with Applicable Accounting Principles; and
- 9.19.4 withheld and collected all Taxes required to be withheld and collected by it and remitted as and when required such Taxes to the appropriate Governmental Authority.

9.20 **Environment**

With respect to environmental matters:

- 9.20.1 the Borrower is in compliance with all Environmental Laws;
- 9.20.2 the ML Assets and Rights are owned, leased, managed, controlled or operated in compliance with all Environmental Laws;
- 9.20.3 there are no existing, pending or, to the Knowledge of the Borrower, threatened:
 - 9.20.3.1 claims, complaints, notices or requests for information received by the Borrower with respect to any alleged violation by the Borrower of or alleged liability of the Borrower under any Environmental Law relating to any of the ML Assets and Rights; or
 - 9.20.3.2 orders from any Governmental Authority, including stop, Clean-Up or preventative orders, directions or action requests issued under Environmental Law which have been received by the Borrower requiring any work, repair, Clean-Up, construction or capital expenditures by the Borrower with respect to any of the ML Assets and Rights;
- 9.20.4 except in compliance with Environmental Law, no Hazardous Materials have been generated, received, handled, used, stored, treated or shipped at or from, and there has been no Release of Hazardous Materials at, on, from or under any of the ML Assets and Rights;
- 9.20.5 except in compliance with Environmental Law, to the Knowledge of the Borrower, none of the lands and premises forming part of the ML Land Area has been used for the disposal of waste or as a landfill or waste disposal site; and
- 9.20.6 to the Knowledge of the Borrower, the Borrower has not directly transported or directly arranged for the transportation of any Hazardous Materials to any location, except in compliance in all material respects with Environmental Law,

in each case with the exception of any matter or matters disclosed in Schedule "D" or that singly or in the aggregate would not have a Material Adverse Effect.

9.21 **Employee Relations**

The Borrower is in compliance with all material employee obligations required under Applicable Law.

9.22 **Business**

The Borrower is engaged solely in the business of undertaking the Project and, following the Commissioning Date, the business of the Borrower will consist of operating and maintaining the Project.

9.23 **<u>Utilities</u>**

All utility services necessary for the construction and the operation of the Project for its intended purposes are available or will be so available as and when required upon commercially reasonable terms.

9.24 <u>Initial Material Project Documents.</u>

The only Material Project Documents as at the Closing Date are the Initial Material Project Documents. The Material Project Documents and the Authorizations referred to in Part IV of Schedule "B":

- 9.24.1 comprise all of the property interests and rights necessary to constitute any right material to the acquisition, leasing, development, construction, installation, commissioning, operation and maintenance of the Project in accordance with all Applicable Law;
- 9.24.2 are sufficient to enable the Project to be located, constructed, operated and maintained on the ML Land Area; and
- 9.24.3 provide adequate ingress and egress for any reasonable purpose in connection with the construction, operation and maintenance of the Project under the Material Project Documents;

in each case save and except for the Additional Material Project Documents and Future ML Assets and Rights that will be acquired as set forth in Section 10.15.

9.25 Material Project Documents

There are no material uncured breaches or defaults by the Borrower or, to the Knowledge of the Borrower, any Material Project Participant, under any Material Project Document.

9.26 Construction Budget; Projection

The Borrower has prepared the Project Budget and the Project Schedule and same:

- 9.26.1 are based on reasonable assumptions as to all legal and factual matters material to the estimates set forth therein;
- 9.26.2 are consistent with the provisions of the Material Project Documents; and
- 9.26.3 indicate the projected date that the Commissioning of the Project will occur.

As of the date hereof, there are no material Project Costs that are not included in the Project Budget.

9.27 **Construction of Project**

All work done on the Project has been done in a good and workmanlike manner in accordance, in all material respects, with the terms of the Material Project Documents, the Authorizations related to the Project including those referred to in Part I of Schedule "B", Good Utility Practice, all Applicable Laws (save as disclosed in Schedule "C"), the Plans, the Project Schedule and the Project Budget.

9.28 Force Majeure

Neither the business nor the ML Assets and Rights or, to the Knowledge of the Borrower, any of the Material Project Participants, have been materially adversely affected by any Force Majeure which would result in a Material Adverse Effect.

9.29 **Aboriginal Matters**

To the Knowledge of the Borrower, except as described in Schedule "H", it is not aware of and it has not received notice of, any assertion by any aboriginal person or group, or any Person acting on behalf of any aboriginal person or group, by virtue of its aboriginal status, of:

- (a) any claim or proceeding against any ML Assets and Rights;
- (b) any right in any ML Land Area;
- (c) any claim of jurisdiction over any business of the Borrower or any right in the ML Land Area; or
- (d) any right to be consulted (other than pursuant to Applicable Law) with respect to any use, development or improvement of any right in the ML Land Area;

and except as disclosed in Schedule "H", the Borrower has no Knowledge of and it has not received, in relation to the ML Land Area, any notice of:

- (i) the existence or potential existence of any aboriginal archaeological, burial, cultural or heritage sites;
- (ii) any actual or alleged interference with aboriginal rights or treaty rights; or
- (iii) any specific or comprehensive claims,

which, in any of the cases set out in clause (a), (b), (c), (d), (i), (ii) or (iii), would result in a Material Adverse Effect or is not generally known to the public in NS.

9.30 Repetition of Representations and Warranties

The representations and warranties made under this Agreement shall be deemed to be made and shall be true, accurate and complete at and as of the date hereof and on the date each Borrowing is requested and made hereunder.

9.31 **Management and Operator Fees**

Save and except for Material Project Documents or in connection with any Distributions, the Borrower is not a party to or bound by any contract or commitment to pay any royalty, licence fee or management fee pursuant to any contract or agreement.

ARTICLE 10

GENERAL COVENANTS

So long as the ML Construction Loan or any other amount payable hereunder is outstanding and unpaid or the Borrower shall have the right to borrow hereunder (whether or not the conditions to borrowing have been or can be fulfilled), and unless the Collateral Agent shall otherwise consent in writing, which consent shall not be unreasonably refused or delayed, the Borrower hereby covenants that:

10.1 **Preservation of Existence, etc.**

The Borrower will preserve and maintain its existence and, subject to the exceptions described in Sections 9.5 and 9.14, preserve and maintain all Authorizations and Registrations necessary or required in the normal conduct of its business and to carry on its business as contemplated in Section 9.22 and qualify and remain qualified and authorized to do business in each jurisdiction in which it carries on business or owns or leases Assets.

10.2 **Obtain Approvals**

Subject to exceptions described in Sections 9.5 and 9.14, the Borrower will obtain or have obtained, as and when required, and maintain or have maintained any Authorization of or from any Governmental Authority which may be or become necessary or required in order that (i) the Borrower may undertake and carry on the Project and Commission the Project, (ii) the Borrower may own its Assets and carry on its business as contemplated in Section 9.22, and (iii) the Borrower may fulfill its obligations under each of the ML Project Finance Documents and Material Project Documents to which it is a party.

10.3 Business, Compliance with Applicable Law

The Borrower will engage solely in the business referred to in Section 9.22 and carry on and conduct its business in a proper and efficient manner. The Borrower will comply or have complied, in all material respects, with Good Utility Practice, all requirements of the

ML Project Finance Documents and Material Project Documents, all requirements of Applicable Law, and the terms and conditions of all Authorizations necessary or required (i) in the normal conduct of its business and (ii) to undertake and carry on the Project and Commission the Project.

10.4 Compliance and Environmental Law

The Borrower will comply, in all material respects, with all applicable Environmental Law and the requirements as to environmental status and compliance as set out in the Material Project Documents.

The Borrower shall deliver to the Collateral Agent notice of the following events after Knowledge thereof (which notice shall in any event be given within twenty (20) days after the Borrower has Knowledge thereof):

- legal action or proceeding commenced against it with respect to any environmental matter referenced under subsection 11.6.1;
- any Release of any Hazardous Material referenced in subsection 11.6.4; and
- 10.4.3 orders, notices or Authorizations from environmental Governmental Authorities referenced in subsection 11.6.5.

10.5 **Keeping of Records**

The Borrower will keep or cause to be kept, proper and lawful records and books of account and make or cause to be made therein, true and faithful entries of all dealings and transactions in relation to its business, all in accordance with Applicable Accounting Principles and, subject to Section 1.8 of Exhibit "A", applied on a consistent basis.

10.6 **Insurance**

The Borrower will maintain, or cause to have maintained by Emera as part of its overall insurance program or by the Borrower's contractors, the following insurance with respect to its Assets with independent and reputable insurers that (i) are licensed in NS or any other jurisdiction in Canada or are otherwise permitted to transact insurance business in Canada and (ii) have a rating of not less than A- "X" from A.M. Best Company or a rating of not less than A- from S&P or shall be otherwise reasonably acceptable on the advice of the Insurance Consultant, which insurance shall be in such form and amounts and with such deductibles and subject to such exclusions as set forth below:

- 10.6.1 from the Closing Date until the earlier of December 31, 2014 and the date that the Construction Period insurance coverage set forth in subsection 10.6.2 has been placed and certificates of insurance in respect thereof have been provided by the Borrower to the Collateral Agent, the following insurance shall be in name of Emera, as part of its overall insurance program, for the benefit of the Borrower:
 - 10.6.1.1 general liability insurance on an occurrence or a claims made basis, including insurance against claims for personal injury, death, property damage and/or loss arising out of the operation of the Project and extended to include coverage for contractual liability, employer's liability, tenant's legal owners'/contractors' protective liability, products and completed operations, collapse, explosion and underground hazards, limited sudden and accidental time element pollution liability and nonowned automobile liability, all with a minimum combined single limit of CDN\$100,000,000 per occurrence which may be met through a combination of primary and excess insurance coverage. Such policy will have a deductible not greater than CDN\$1,000,000 per occurrence.
- From and after the date set forth in subsection 10.6.1 and during the remaining portion of the Construction Period, the following insurance shall be in the name of Borrower or, as the case may be, Emera, as part of its overall insurance program, or the Borrower's contractors, for the benefit of the Borrower:
 - 10.6.2.1 all risks builder's risk insurance, including coverage for perils of flood, earthquake and windstorm on all of its property and assets that are of an insurable nature (except installed onshore transmission and distributions systems) located at or incidental to the Project in NS or NL on a replacement cost, no co-insurance basis with a loss limit, sublimit and aggregated sublimits covering insured physical loss or damage in an amount acceptable to the Collateral Agent, but in any event of not less than CDN\$250,000,000 per occurrence except in the aggregate with respect to the perils of flood, earthquake and windstorm, provided, however that the limit applicable to any insured physical loss or damage to the submarine transmission systems shall be acceptable to the Collateral Agent on the advice of the Insurance Consultant. The builder's risk policy will provide coverage for resultant loss or damage arising from faulty materials, workmanship, service or design that limits the non-covered costs to equivalent to a LEG 2 coverage. The builder's risk insurance shall include coverage for testing and commissioning of machinery and equipment, a permission to occupy clause, a by-laws endorsement and coverage for property inland transit and property stored off-site;

- wrap-up liability insurance on an occurrence basis, including 10.6.2.2 insurance against claims for personal injury, death, property damage and/or loss arising out of the Project and extended to include coverage for contractual liability, tenant's legal liability, contingent employer's liability, owners'/contractors' protective liability, products and completed operations (not less than twentyfour (24) months), collapse, explosion and underground hazards, limited sudden and accidental time element pollution liability and non-owned automobile liability, all with a minimum combined single limit of not less than CDN\$75,000,000 per occurrence and CDN\$75,000,000 in the aggregate with respect to products and completed operations liability to also include the interests of all contractors, sub-contractors, trades and suppliers of materials (excluding suppliers who only supply materials, machinery or supplies to the Project and who do not carry out any installation or construction works on or at the site of the Project) whatsoever to the extent such coverage is not otherwise provided in insurance by such parties. Such policy will have a deductible that is the best available on commercially reasonable terms and acceptable to the Collateral Agent;
- 10.6.2.3 environmental liability insurance covering first party property damage and site clean-up and any third party claims for bodily injury, property damage and clean-up for any environmental incidents arising out of the construction of the Project if required by contract;
- automobile liability insurance to provide coverage for owned, hired and non-owned vehicles with a minimum limit of liability of CDN\$25,000,000 for each occurrence, bodily injury and property damage combined which may be met by primary and excess insurance;
- 10.6.2.5 marine cargo insurance covering physical loss or damage for all shipments by ocean marine in an amount representing not less than 100% of the replacement cost of any property being shipped on any one vessel at any one time; such policy will have a deductible that is the best available on commercially reasonable terms and acceptable to the Collateral Agent;
- 10.6.2.6 worker's compensation insurance as required by the Laws of NS and NL covering employees of the Borrower and any other Person acting under the authority of the Borrower;
- 10.6.2.7 watercraft and/or aircraft liability if any aircraft and/or watercraft will be utilized in relation to its Project for a limit of not less than

- CDN\$25,000,000 per occurrence which may be met by primary and excess insurance;
- 10.6.2.8 P&I insurance to the extent the Borrower has any such exposure; and
- 10.6.2.9 other insurance as may be considered customary and prudent industry practice if required by the Collateral Agent following consultation with the Borrower and the Insurance Consultant:
- during the Operating Period and for so long as any amounts are due hereunder, the following insurance shall be in the name of the Borrower or, as the case may be, Emera, as part of its overall insurance program, or the Borrower's contractors, for the benefit of the Borrower:
 - all risks property insurance or other forms of financial assurance including coverage for the perils of flood, earthquake and windstorm on all of its property and assets that are of an insurable nature (except onshore transmission and distribution systems) on a replacement cost basis with a loss limit, sublimit and aggregated sub limits acceptable to the Collateral Agent on the advice of the Insurance Consultant. The property insurance shall be written on a stated amount or other comparable clause (allowing no co-insurance) basis and shall include a by-laws endorsement;
 - general liability insurance on an occurrence or a claims made 10.6.3.2 basis, including insurance against claims for personal injury, death, property damage and/or loss arising out of the operation of the Project and extended to include coverage for contractual liability, contingent employer's liability. tenant's legal liability. owners'/contractors' protective liability, products and completed operations, collapse, explosion and underground hazards, limited sudden and accidental time element pollution liability and nonowned automobile liability, all with a minimum combined single limit of CDN\$50,000,000 per occurrence or higher where required by contract which may be met through a combination of primary and excess insurance coverage. Such policy will have a deductible not greater than CDN\$1,000,000 per occurrence;
 - automobile liability insurance to provide coverage for owned, hired and non-owned vehicles with a minimum limit of liability of CDN\$25,000,000 for each occurrence, bodily injury and property damage combined which may be met by primary and excess insurance:

- 10.6.3.4 worker's compensation insurance as required by the Laws of NS or NL, as the case may be, covering employees of the Borrower and any other Person acting under the authority of the Borrower;
- 10.6.3.5 watercraft and/or aircraft liability if any aircraft and/or watercraft will be utilized by the Borrower in relation to the Project for a limit of not less than CDN\$25,000,000 per occurrence which may be met by primary and excess insurance; and
- 10.6.3.6 other insurance in accordance with industry practice to the extent an exposure exists and if required by the Collateral Agent following consultation with the Borrower and the Insurance Consultant:
- the builder's risk, the all-risks property and (if any) boiler and machinery insurance policies contemplated hereunder shall:
 - 10.6.4.1 contain an advance payment clause;
 - 10.6.4.2 name the Collateral Agent and the Funding Vehicle as additional insureds as their interests may appear and the Collateral Agent as first mortgagee and loss payee on behalf of the Funding Vehicle;
 - 10.6.4.3 have attached a standard mortgage clause in a form approved by the Collateral Agent;
 - 10.6.4.4 provide that no cancellation for any reason whatsoever, shall take effect unless the insurer concerned has given not less than sixty (60) days' prior written notice of such proposed action (with the exception of cancellation for non-payment of premium for which a statutory fifteen (15) days' notice may apply);
 - 10.6.4.5 contain a waiver by the insurer or insurers of all rights of subrogation or indemnity or any other claim to which such insurer or insurers might otherwise be entitled against the Collateral Agent and the Funding Vehicle;
 - 10.6.4.6 [intentionally deleted]; and
 - 10.6.4.7 all deductibles to be best available on commercially reasonable terms and acceptable to the Collateral Agent;
- the liability policies contemplated hereunder shall:
 - 10.6.5.1 name each of the Collateral Agent and the Funding Vehicle as an additional insured;

- 10.6.5.2 provide that no cancellation or termination thereof or change therein, for any reason whatsoever, shall take effect unless the insurer concerned has given not less than sixty (60) days' prior written notice of such proposed action (with the exception of cancellation for non-payment of premium for which a statutory fifteen (15) days' notice may apply);
- 10.6.5.3 contain a waiver by the insurer or insurers of all rights of subrogation or indemnity or any other claim to which such insurer or insurers might otherwise be entitled against the Collateral Agent and the Funding Vehicle;
- 10.6.5.4 contain blanket written contractual liability;
- 10.6.5.5 contain a non-vitiation or standard mortgage clause to the extent applicable; and
- 10.6.5.6 contain a cross liability and severability of interest clause;
- 10.6.6 insurance proceeds relating to any damage or destruction of the Project received by either the Borrower or the Collateral Agent under any insurance required to be maintained pursuant to subsection 10.6.2 or subsection 10.6.3:
 - 10.6.6.1 aggregating less than CDN\$30,000,000 per occurrence shall be deposited into the Borrower Insurance Reserve Account, in accordance with paragraphs 8.6.1.1 or 8.6.2.2, as applicable, to be applied to the repair or restoration of the Project;
 - aggregating more than CDN\$30,000,000 per occurrence, where the Repair Conditions have been satisfied, shall be deposited into the Borrower Insurance Reserve Account and shall be applied in accordance with paragraphs 8.6.1.2 or 8.6.2.3, as applicable, and with subsection 10.6.7; or
 - 10.6.6.3 aggregating more than CDN\$30,000,000 per occurrence, where the Repair Conditions have not been satisfied, shall be deposited into the Borrower Insurance Reserve Account and maintained therein until the Repair Conditions have been satisfied, at which time the funds therein shall be released and applied in accordance with paragraphs 8.6.1.2 or 8.6.2.3, as applicable, and with subsection 10.6.7;
- if insurance proceeds relating to any damage or destruction of the Project have been received under any insurance required to be maintained pursuant to subsection 10.6.2 or subsection 10.6.3 and paragraph 10.6.6.2 is applicable, or paragraph 10.6.6.3 is applicable and the Repair Conditions have been satisfied, such insurance proceeds shall be applied by the Borrower during the

Construction Period or the Operating Period to the repair or restoration of the Project in accordance with the following procedures:

- 10.6.7.1 the Borrower shall cause any repairs or restoration to be commenced and completed diligently at the cost and expense of the Borrower; and
- 10.6.7.2 the release of insurance proceeds for application toward such repairs or restoration shall be conditioned upon the Borrower's written request and the presentation to the Collateral Agent of a certificate of the Borrower (a) describing in reasonable detail the nature of the repairs or restoration to be effected with such release, (b) stating the cost of such repairs or restoration and the specific amount requested to be paid over to or upon the order of the Borrower and that such amount is requested to pay the cost thereof, (c) stating that the aggregate amount requested by the Borrower in respect of such repairs or restoration (when added to any other insurance proceeds received by the Borrower in respect of such damage or destruction and other available funding sources) does not exceed the Borrower's reasonable estimation of the cost of such repairs or restorations, and that repair or restoration of the Project is technically and economically feasible, and (d) stating that each ML Project Finance Document and during the Construction Period, each Material Project Document remains in full force and effect, whereupon the Collateral Agent shall release such insurance proceeds to the Borrower;

The Borrower will duly and punctually pay or cause to be paid the premiums and other sums of money payable in connection with all such insurance and shall provide an annual insurance renewal certificate to the Collateral Agent. The Borrower shall provide prompt notice to the Collateral Agent of any notices of cancellation or termination or material changes received from any insurer in respect of any insurance policies required to be maintained pursuant to subsection 10.6.2 or subsection 10.6.3.

Where under any Material Project Document, the counterpart thereto is required to take or maintain any insurance, then the Borrower shall cause such insurance to name the Collateral Agent and the Funding Vehicle as first mortgagee and loss payees under direct damage policies (property, boiler and machinery, builders risk) and as additional insured under liability insurance policies and to contain a standard mortgagee clause.

The Borrower shall, or, during any Enforcement Proceedings pursuant to the ML Security Documents, shall assist the Collateral Agent to, at the Borrower's cost and expense, make all proofs of loss and take all other steps necessary or reasonably necessary to collect from insurers for any loss covered by any insurance required to be maintained pursuant to subsection 10.6.2 or subsection 10.6.3.

In the event that at any time the insurance required to be maintained pursuant to subsection 10.6.2 or subsection 10.6.3 is not available on commercially reasonable terms and conditions, the Borrower shall procure the best insurance coverage available on commercially reasonable terms and conditions, as evidenced by a supporting broker opinion acceptable to the Collateral Agent and the Insurance Consultant.

In the event that at any time the insurance required to be maintained pursuant to subsection 10.6.2 or subsection 10.6.3 shall be reduced (and such reduction is not warranted and is not reinstated) or cease to be maintained (provided such insurance continues to be considered to be necessary in accordance with Good Utility Practice), then (without limiting the rights of the Collateral Agent hereunder in respect of any ML Event of Default which arises as a result of such failure), the Collateral Agent may, following consultation with the Borrower, maintain such insurance required to be maintained pursuant to subsection 10.6.2 or subsection 10.6.3 and, in such event, the Borrower shall reimburse the Collateral Agent upon demand for the cost thereof together with interest thereon at a rate as specified in this Agreement, but in no event shall the rate of interest exceed the maximum rate permitted by Applicable Law.

10.7 **Registrations**

- 10.7.1 The Borrower will maintain, amend and renew as required the Registrations made from time to time as required by this Agreement in connection with the ML Security Documents, in order to create, preserve, protect and perfect the Liens created pursuant to such documents and, from time to time, upon any demand from the Collateral Agent to that effect, execute and deliver all other documents and do all other things which the Collateral Agent may require with respect to the ML Security Documents in order to create, preserve, protect and perfect the validity, effect and priority of the Liens against the Key Sites created thereunder. Notwithstanding any other provision of this Agreement, provided the Borrower is not in default under this Agreement, the Borrower shall not be required to so register the ML Security Documents against the Borrower's interest in the ML Real Property Interests more often than quarterly, except that in the case of the acquisition of ML Real Property Interests constituting all or a portion of the Key Sites or any one of them, the Borrower shall register the ML Security Documents in respect thereof at the time of acquisition.
- 10.7.2 From and after the Closing Date, upon the acquisition of any ML Real Property Interests constituting all or a portion of the Key Sites or any one of them, the Borrower shall provide to the Collateral Agent the title opinion of the Borrower's Real Property Counsel to the effect that the Borrower is the duly registered and lawful owner by good and marketable freehold or leasehold title, as the case may be, of such of the Key Site as at such date of acquisition and that the said interest in such Key Site is free and clear of all Liens, except Permitted Encumbrances.

10.8 Payment of Taxes and Claims

The Borrower will timely pay and discharge: (i) subject to paragraph (ii), all Taxes prior to the date on which penalties attach thereto, and (ii) all lawful claims for rents, labour, materials and supplies which, if unpaid, might become a Lien upon any of its Assets; provided, however, that, no such Taxes, and associated penalties, if any, and claims, need be paid which are being contested in good faith by appropriate proceedings and for which appropriate reserves shall have been set aside on the appropriate books, but only so long as such Taxes, and associated penalties, if any, and claims do not become subject to a Lien, other than a Permitted Encumbrance, and no foreclosure, distraint, seizure, attachment, sale or similar proceedings shall have been commenced.

10.9 **Visits and Inspections**

Upon reasonable prior notice, the Borrower shall permit representatives of the Collateral Agent, Canada and the Funding Vehicle including specifically, the Independent Engineer, at their risk, upon reasonable request made (i) no more than three (3) times per calendar year if no ML Event of Default has occurred and is continuing or (ii) if a ML Event of Default then exists, from time to time as is reasonable in the circumstances, to visit and inspect the locations of its Assets during normal business hours, provided that such visit and inspection does not affect any equipment warranty or materially affect any Project Costs or the Project Schedule, inspect its books and records and discuss with its principal officers its business, assets, liabilities, financial position, results of operations and business prospects, and otherwise verify the Borrower's compliance with its covenants under the ML Project Finance Documents, the Material Project Documents and all Authorizations relating to the Project.

10.10 Payment of Legal and Other Fees and Disbursements

The Borrower shall pay (i) all Various Agent Costs and Expenses, the Funding Vehicle Project Costs and Expenses and the Canada Project Costs and Expenses, following its receipt, from time to time, of satisfactory invoices and supporting documentation relating to such costs and expenses and (ii) without duplication, all other expenses of the Funding Vehicle (other than interest paid or payable by the Funding Vehicle in connection with the FV Debt or other Indebtedness of the Funding Vehicle) including any Taxes payable by the Funding Vehicle, as well as all other amounts required to be paid by the Administrator pursuant to the Administration Agreement.

10.11 Change of Name/Transfer of Assets

The Borrower shall notify the Collateral Agent in writing at least ten (10) Business Days prior to (a) any change of name of the Borrower, (b) any transfer of the Borrower's rights in its Assets not expressly permitted hereunder, (c) any change in jurisdictions in which the Assets of the Borrower are located, and (d) any change in the location of the Borrower within the meaning of the PPSA.

10.12 Material Project Documents

The Borrower will:

- 10.12.1 observe, perform and discharge in all material respects the covenants, conditions and obligations imposed on it by any Material Project Document and all Authorizations related to the Project;
- do all things necessary or expedient in order to maintain each Material Project Document and all Authorizations related to the Project in full force and effect unless such Material Project Document or Authorization is no longer in full force and effect as a result of Commissioning or the failure to maintain it in full force and effect would not have a Material Adverse Effect:
- 10.12.3 enforce each Material Project Document in accordance with its terms unless the failure to do so would not have a Material Adverse Effect; and
- 10.12.4 upon the request of the Collateral Agent, make to each of the other parties under the IE Contract such demands for information and reports as to action taken or, as the case may be, not taken, as the Borrower is entitled to make thereunder.

10.13 Change Orders

The Borrower shall have the authority to issue Change Orders to amend the Material Project Documents, provided, however, that:

- 10.13.1 a copy of any Change Order shall immediately be provided to the Independent Engineer and the Collateral Agent;
- 10.13.2 if (i) any Change Order issued under a Material Project Document exceeds Twenty Million Canadian Dollars (CDN\$20,000,000) and (ii) taking into account such Change Order, the Cost Variances, as at the proposed date of coming into effect of such Change Order, netted against the savings, would result in Hard Costs that exceed the Hard Costs budgeted under the Project Budget as at such date by an amount in excess of Twenty Million Canadian Dollars (CDN\$20,000,000), then such proposed Change Order may only be issued with the written consent of the Collateral Agent in consultation with the advice of the Independent Engineer, which consent shall not be unreasonably refused or delayed, it being agreed that the Collateral Agent shall provide a response to the request for such Change Order by no more than five (5) Business Days following its receipt of such request; and
- such Change Order will not delay Commissioning of the Project beyond the Date Certain unless the Collateral Agent otherwise consents, it being agreed that the Collateral Agent shall provide a response to the request for such Change Order by no more than five (5) Business Days following its receipt of such request.

10.14 Notices under Material Project Documents

If the Borrower is provided with (i) a notice of revocation or termination with respect to any of the Material Project Documents or (ii) a notice of suspension or stoppage of work under a Material Project Document, the Borrower shall provide as soon as reasonably possible thereafter, a copy of such notice to the Collateral Agent with a description of the applicable default or circumstance giving rise thereto and a report indicating the status of such default or circumstance and the steps taken and to be taken (as applicable) to cure such default or circumstance. If such default or circumstance is not cured within thirty (30) days after the receipt by the Borrower of any such notice, the Borrower will so advise the Collateral Agent and thereafter will co-operate and work with the Independent Engineer and the Collateral Agent to attempt to cure such default within the then remaining cure period available to the Borrower, if any, under the relevant Material Project Document.

10.15 Additional Material Project Documents

The Borrower shall deliver to the Collateral Agent within forty-five (45) days after the receipt thereof by the Borrower, copies of:

- 10.15.1 all Additional Material Project Documents and material Authorizations obtained or entered into by the Borrower after the Closing Date;
- 10.15.2 any amendment, supplement or other modification to any Material Project Document received by the Borrower after the Closing Date; and
- 10.15.3 all material notices, directives or written communications relating to the Project received by the Borrower from any Governmental Authority.

The Borrower shall acquire the Future ML Assets and Rights, including, without limitation, the Key Sites, as and when required to enable it to comply in all material respects with the Project Schedule. The Borrower will execute the Additional Material Project Documents in a form satisfactory to the Collateral Agent, as and when required to enable it to comply in all material respects with the Project Schedule.

10.16 **Commissioning**

The Borrower shall diligently pursue the construction of the Project to achieve Commissioning in all material respects in accordance with Good Utility Practice, the Project Plans, the Project Schedule, the Project Budget, the Material Project Documents and all Authorizations related to the Project. If the Project does not achieve Commissioning by the Date Certain, the Borrower acknowledges that Canada shall be entitled to issue an "Enforcement Notice" under the Completion Guarantee and exercise its right and remedies thereunder.

10.17 Use of Proceeds

The Borrower will apply all proceeds of all ML Drawdowns under the ML Construction Facility to finance, in part, Project Costs.

10.18 **Use of Project Funds**

Save as otherwise provided in Article 8, the Borrower shall deposit and direct that all funds receivable by it be deposited into the Borrower Project Funding Account and transfer such amounts for application solely for the purposes and in the order and manner provided in Article 8.

10.19 Commitment to Commission

The Collateral Agent may, from time to time and in consultation with the Independent Engineer, redetermine the total Hard Costs necessary to Commission the Project in accordance with the requirements of this Agreement using current cost data and other information obtained by or otherwise made available to the Collateral Agent pursuant to the terms of this Agreement. Where at any time the full amount of the ML Construction Facility have been disbursed but the Project has not yet achieved Commissioning, the Borrower shall cause all Project Costs necessary to achieve Commissioning to be funded on a timely basis.

10.20 **Post-Commissioning Work**

The Borrower shall create (i) a list of items of work remaining to be performed or corrected and a list of items to be completed in connection with the Performance Testing, together with an estimate of the costs to complete same (the "Punch List Items"), (ii) a list of all Demobilization Work and an estimate of the costs to complete same (the "Demobilization List Items"); and (iii) a list of items in respect of which Hard Costs will be outstanding following the first day of the Operating Period, and shall provide such lists to the Collateral Agent and the Independent Engineer no later than 30 days prior to the Commissioning Date. The Collateral Agent and the Independent Engineer shall be entitled to verify such lists in a manner acceptable to the Borrower.

The Borrower shall use commercially reasonable efforts to complete the Punch List Items and Demobilization List Items within 365 days following the Commissioning Date and shall provide to the Collateral Agent evidence of such completion.

10.21 **Expropriation**

If an Expropriation Event shall be threatened or occur with respect to any Assets of the Borrower, the Borrower: (a) shall following discovery or receipt of notice of any such threat or occurrence provide written notice to the Collateral Agent; (b) shall diligently pursue all its rights to compensation against the relevant Governmental Authority in respect of such Expropriation Event; and (c) shall not, without the prior written consent of the Collateral Agent, which consent (prior to the occurrence and continuance of a ML Event of Default) shall not be unreasonably refused or delayed, compromise or settle

any claim against such Governmental Authority. The Borrower consents to the participation of the Collateral Agent in any proceedings resulting from an Expropriation Event, and the Borrower shall from time to time deliver to the Collateral Agent all documents and instruments requested by it to permit such participation.

10.22 As Built Marked-Up Drawings, Survey

By no later than two hundred and seventy (270) days following the first day of the Operating Period, the Borrower shall deliver to the Collateral Agent "as built" marked-up drawings for the Project and on or prior to the Commissioning Date, deliver to the Collateral Agent a surveyor's real property report with respect to the Project showing no encroachments other than Permitted Encumbrances on any portion of any premises outside the ML Land Area. Based on such surveys, the Borrower shall make all such further Registrations of the ML Security Documents in all offices where such registration, filing or recording is necessary or of advantage to the creation, validity, effect, perfection, priority or preservation of Liens under the ML Security Documents, including, Registrations in respect of underground cables.

10.23 Maintenance

During the Operating Period, the Borrower shall operate and maintain the ML Assets and Rights and carry out the O&M Activities in accordance with Good Utility Practice.

10.24 **IE Certificate**

The Borrower shall cooperate with the Independent Engineer so the Independent Engineer can provide to the Collateral Agent, on an annual basis on each anniversary date of the Commissioning Date, a certificate in the form of the one attached as Schedule "I", confirming that budgeting and maintenance of the Project are being conducted in accordance with Good Utility Practice.

10.25 **DSCR Consultation Process**

If any ML Compliance Certificate delivered pursuant to Section 11.1 or 11.2 demonstrates that either the Retrospective DSCR or the Prospective DSCR is less than 1.40 as at the end of any relevant rolling twelve (12) month period, a thirty (30) day consultation process shall automatically be triggered commencing on the date of delivery of such ML Compliance Certificate (the "DSCR Consultation Period"). During the DSCR Consultation Period, the Borrower shall meet with the Collateral Agent and the Funding Vehicle, during normal business hours, on request made from time to time by the Collateral Agent in advance of any proposed meeting to discuss the DSCR results and the Borrower's proposed steps to increase the DSCR.

10.26 Anti-Money Laundering Legislation

Since, pursuant to the *Proceeds of Crime (Money Laundering) and Terrorist Financing Act* (Canada) and other applicable anti-money laundering, anti-terrorist financing, government sanction and "know your customer" laws (collectively, including any

guidelines or orders thereunder, "AML Legislation"), the Collateral Agent and the Funding Vehicle may be required to obtain, verify and record information regarding the Borrower, its directors, authorized signing officers, direct or indirect holders of its Capital Stock or other Persons in control, directly or indirectly, of 25% or more of the Capital Stock of the Borrower, and the transactions contemplated hereby, the Borrower shall provide all such information, including supporting documentation and other evidence, as may be requested by the Collateral Agent or the Funding Vehicle, in order to comply with any applicable AML Legislation, whether now or hereafter in existence.

10.27 [Intentionally Deleted]

10.28 Cost Overruns

- 10.28.1 Starting on the first anniversary of the first ML Drawdown Date, and on each anniversary date thereafter (or, in each case, if such anniversary date is not a Business Day, on the first Business Day following such anniversary date) up to the Commissioning Date, the Borrower shall deliver to the Collateral Agent a certificate (the "Cost Overruns Certificate"):
 - 10.28.1.1 reporting on the Cost to Complete;
 - 10.28.1.2 advising of any changes to the Project Schedule and the expected Commissioning Date;
 - 10.28.1.3 confirming the amount of Cost Overruns, if any, as at the date of such certificate; and
 - 10.28.1.4 confirming that any such Cost Overruns have been funded in accordance with the terms hereof. The amounts set forth in the Cost Overruns Certificate shall be confirmed by the Independent Engineer in a certificate delivered to the Collateral Agent concurrently with the Cost Overruns Certificate which shall include comments by the Independent Engineer on the reasonableness of the Cost to Complete and the adequacy of the funding of the Cost Overruns.
- 10.28.2 The Borrower hereby covenants and agrees that any Cost Overruns shall be funded as follows:
 - 10.28.2.1 on the first anniversary date of the first ML Drawdown Date (or, if such anniversary date is not a Business Day, on the first Business Day following such anniversary date), an amount equal to the aggregate Cost Overruns, calculated as at such anniversary date, divided by the number of calendar years remaining to the expected Commissioning Date (each an "Initial Cost Overrun Instalment Payment") shall have been funded, and the Initial Cost Overrun Instalment Payment shall be funded on each anniversary date

- thereafter until an amount equal to such aggregate Cost Overruns shall have been paid;
- 10.28.2.2 on the second anniversary date of the first ML Drawdown Date and on each anniversary date thereafter (or, in each case, if such anniversary date is not a Business Day, on the first Business Day following such anniversary date) up to the Commissioning Date, if the Cost to Complete as at such anniversary date plus the Project Costs incurred and paid for since Project Commencement less the amount of the Project Budget exceed the Cost Overruns reported as at the previous anniversary date, an amount equal to such excess, which is the additional Cost Overrun for that year (an "Additional Cost Overrun"), divided by the number of calendar years remaining to the expected Commissioning Date (each an "Annual Cost Overrun Instalment Payment") then that Annual Cost Overrun Instalment Payment shall be funded on each anniversary date thereafter until an amount equal to the aggregate Additional Cost Overrun has been paid;
- 10.28.2.3 each Initial Cost Overrun Instalment Payment and Annual Cost Overrun Instalment Payment shall be funded by way of an advance of cash by the Borrower into the Cost Overrun Escrow Account. The Cost Overrun Escrow Account will be under the control of the Collateral Agent for the purpose of funding Cost Overruns and shall form part of the Security;
- 10.28.2.4 following the Available ML Construction Facility being nil and the amounts on deposit in the Working Capital Reserve Account being nil, all Eligible Project Costs shall be funded by the use of the amounts so deposited in the Cost Overrun Escrow Account. Funds shall be released from the Cost Overrun Escrow Account in a manner similar to that contemplated in Section 7.7 in connection with WCR Releases. If at any time between the first ML Drawdown Date and the Commissioning Date, the balance outstanding in the Cost Overrun Escrow Account is nil, Eligible Project Costs shall be funded through additional equity contributions or Additional Debt, as may be permitted under the terms hereof;
- 10.28.2.5 where immediately prior to Commissioning any balance remains outstanding in the Cost Overrun Escrow Account, then upon Commissioning, such balance shall be released from the Cost Overrun Escrow Account and applied at the Borrower's option;
- 10.28.2.6 for all purposes of calculating the DER, following the Available ML Construction Facility being nil and the amounts on deposit in the Working Capital Reserve Account being nil, the amounts

deposited into the Cost Overrun Escrow Account shall be deemed to form part of the Base Equity Contribution, but not before; and

- 10.28.2.7 any amount on deposit in the Cost Overrun Escrow Account shall be used exclusively to fund Project Costs, and, for greater certainty, shall not be used for the payment of any debt service obligations, other than to the extent that they constitute Project Costs.
- 10.28.3 Notwithstanding the provisions of subsection 10.28.2, the Borrower shall be permitted to deliver to the Collateral Agent a Letter of Credit issued under a letter of credit facility of Emera or a Subsidiary of Emera (other than the Borrower) for any amount of Cost Overruns to be funded in the Cost Overrun Escrow Account. The total amount required to be on deposit in the Cost Overrun Escrow Account at any time while the Collateral is in possession of such a valid Letter of Credit shall be reduced by the amount of such Letter of Credit.

10.29 Schedules to be Completed Following the Closing Date

The Borrower hereby undertakes to deliver to the Collateral Agent schedules to Exhibit B", Schedule "E", and Part II (Soft Costs) of Schedule "U" with, in the case of each such schedule, the acknowledgement set forth therein duly executed by the Borrower, and in each case completed so as to provide for all information required pursuant to the terms hereof. Schedule "X" will be completed following approval for the form of letter of credit by the Collateral Agent acting in accordance with Requisite Instructions.

ARTICLE 11

INFORMATION COVENANTS

So long as the ML Construction Loan or any other amount payable hereunder or, for clarity and without duplication, any amount payable to Canada under the GAA, is outstanding and unpaid or the Borrower shall have the right to borrow hereunder (whether or not the conditions to borrowing have been or can be fulfilled) and unless the Collateral Agent shall otherwise consent in writing, the Borrower covenants and agrees that:

11.1 Quarterly Financial Statements and Information

Within sixty (60) days after the end of each of the first three (3) fiscal quarters in each of the fiscal years of the Borrower, the Borrower shall deliver to the Collateral Agent:

- the unaudited consolidated Financial Statements of the Borrower for such fiscal quarter;
- 11.1.2 during the Operating Period, a ML Compliance Certificate. If a ML Compliance Certificate delivered pursuant to this Section indicates that

the Retrospective DSCR or the Prospective DSCR as at the end of any relevant rolling twelve (12) month period was less than 1.40, the Borrower shall also provide to the Collateral Agent such information as to the reasons why the DSCR was less than 1.40 and the means by which the Borrower proposes to increase the DSCR; and

during the Operating Period, an operating report in the form of the one attached as Schedule "J" signed by a Responsible Officer of the Borrower, in his capacity as an officer of the Borrower and without personal liability, containing a quarterly and year-to-date numerical and narrative assessment of (i) the variance analysis of the Project's compliance with each material category in the applicable Annual O&M Budget, (ii) any material casualty losses, (iii) replacement of material equipment not contemplated by the then current Annual Maintenance Plan, and (iv) an update on works performed to date pursuant to the Annual Maintenance Plan (an "Operating Report").

11.2 **Annual Financial Statements and Information**

Within one hundred and twenty (120) days after the end of each fiscal year of the Borrower, the Borrower shall deliver to the Collateral Agent:

- the audited consolidated Financial Statements of the Borrower, as certified by a national firm of chartered accountants of recognized standing and accompanied by such auditors' report which must not contain any expression of any material concern as to whether or not such Financial Statements do present fairly the financial position of the Borrower;
- during the Operating Period, a ML Compliance Certificate. If a ML Compliance Certificate delivered pursuant to this Section indicates that the Retrospective DSCR or the Prospective DSCR as at the end of any relevant rolling twelve (12) month period was less than 1.40, the Borrower shall provide to the Collateral Agent such information as to the reasons why the DSCR was less than 1.40 and the means by which the Borrower proposes to increase the DSCR; and;
- following the beginning of the Operating Period, an Operating Report with respect to the last fiscal quarter of the previous fiscal year.

11.3 **Construction Reports**

During the Construction Period, the Borrower shall deliver to the Collateral Agent and the Independent Engineer, a construction report in the form of the one attached as Schedule "K" on the twentieth (20th) day of each month, or where the twentieth (20th) day of a month is not a Business Day, the Business Day immediately following the twentieth (20th) day of such month, with respect to the prior month, which report shall be executed by a Responsible Officer of the Borrower, in his capacity as an officer of the Borrower and without personal liability, attesting or providing:

- Hard Costs incurred as at the Effective Date in such prior month by major expense category and compared as against the original Project Budget;
- an analysis of the Cost to Complete;
- a description of any Cost Variances detailing any variances from the Project Budget (with a narrative explanation of such variances);
- the estimated Commissioning Date detailing any variances which would materially delay the Commissioning Date;
- a description of any material disputes with any Material Project Participant and any related claims against the Borrower;
- 11.3.6 a narrative report describing in reasonable detail the progress of the construction of the Project since the last report hereunder and compared as against the originally established milestones in the Project Schedule;
- that the Project is being built substantially in all respects in accordance with the Project Plans and Good Utility Practice and that, subject to the exceptions described in Sections 9.5 and 9.14, such officer has no reason to believe that the Project is being built in violation of any Applicable Laws or Authorizations in effect at the time of performance of the relevant work;
- 11.3.8 that, subject to the exceptions described in Sections 9.5 and 9.14, all Material Project Participants and other Persons participating or working toward the Commissioning of the Project, to the best of such Responsible Officer's Knowledge, are not in material default with respect to any of their respective obligations which would materially delay Commissioning and the Borrower is not in material default in the payment of any sums due to such Persons in accordance with the terms agreed upon or in the fulfilment of any of its obligations with respect to such Persons, save and except with respect to such payments or obligations which the Borrower shall be contesting diligently and in good faith and in respect of which, in the event that such contestation should prove unsuccessful, no Lien shall be created or result upon or with respect to any ML Assets and Rights now owned or hereafter acquired by the Borrower, except for Permitted Encumbrances;
- 11.3.9 that, subject to the exceptions described in Sections 9.5 and 9.14, all Authorizations which, under Applicable Law, at such time are necessary to have been obtained in connection with the Project and the work currently being performed on the Project, have been obtained and are in full force and effect and do not contain any condition which could prevent or adversely affect the ability of the Borrower of attaining Commissioning of the Project; and

11.3.10 as to the Additional Material Project Documents, if any, entered into by the Borrower since the last such certificate or the Closing Date, as the case may be:

which report shall be accompanied with all such supporting documentation and information as will permit the Collateral Agent and the Independent Engineer to verify the information and calculations given and made in such report (a "Construction Report").

11.4 **Distribution Certificate**

If the Borrower wishes to make a Distribution, other than one contemplated in subsection 12.6.1 or paragraph 12.6.2.1, during any fiscal quarter (it being understood that only one Distribution may be made per fiscal quarter), then a Distribution Certificate must be delivered to the Collateral Agent no less than five (5) Business Days prior to the proposed Distribution Date:

- 11.4.1 setting forth a calculation of Distribution Funds; and
- 11.4.2 certifying whether each of the Distribution Conditions has been met or will be met on the relevant Distribution Date.

11.5 **Budget Information**

During the Operating Period, the Borrower shall provide to the Collateral Agent, not more than ninety (90) days following the end of each fiscal year of the Borrower, the forecasted Financial Statements of the Borrower for the following fiscal year, detailed on a quarterly basis in a manner satisfactory to the Collateral Agent.

During the Operating Period, the Borrower shall provide to the Collateral Agent not less than thirty (30) days before the end of each fiscal year, the Annual O&M Budget and the Annual Maintenance Plan for the following fiscal year.

11.6 Notice of Litigation and other Matters

The Borrower shall deliver to the Collateral Agent notice of the following events after Knowledge thereof (which notice shall in any event be given within twenty (20) days after the Borrower has Knowledge thereof):

the commencement of all proceedings (including any notices of infraction) and investigations by or before any Governmental Authority and all actions and proceedings in any court or before any arbitrator against, or (to the extent Known to the Borrower) in any other way relating to the Borrower, any of their respective Assets, the Project or, to the Knowledge of the Borrower, threatened against the Borrower or the Project, in each case which would have a Material Adverse Effect:

- any event or events which, singly or in the aggregate, would have a Material Adverse Effect;
- any ML Event of Default;
- any Release of any Hazardous Material at, upon, under, over, within, with respect to or emanating from the ML Land Area in violation of any applicable Environmental Law, which would have a Material Adverse Effect;
- 11.6.5 copies of all orders, notices or Authorizations from environmental Governmental Authorities where the issue thereof would, singly or in the aggregate, have a Material Adverse Effect;
- the occurrence of a material event of Force Majeure described in reasonable detail, the effects of such event on the Project Schedule and Project Budget or the operation of the ML Assets and Rights, the action which the Borrower intends to take to remedy such event and the estimated date when the event of Force Majeure will be remedied and will cease to impair the Project Schedule and Project Budget or the operation of the ML Assets and Rights as well as notice of the cessation of any event of Force Majeure;
- any circumstance of which the Borrower has notice or has Knowledge which would result in a material breach of, or material default under, a Material Project Document by any party thereto;
- any notice received by the Borrower of any Expropriation Event as regards any of the Assets of the Borrower;
- any casualty, damage or loss, whether or not insured, or any act or omission of the Borrower, its officers, directors, agents, contractors, consultants or representatives, or of any other Person if such casualty, damage, loss, act or omission affects the Borrower or the Project, in excess of CDN\$25,000,000 for any one such incident, or an aggregate of CDN\$50,000,000;
- any cancellation or material change in the terms, coverages or amounts of any insurance described in Section 10.6, unless such cancellation or material change has been approved by the Collateral Agent;
- any intentional withholding of material compensation to any Material Project Participant under any Material Project Document;
- 11.6.12 any material breach or material dispute under any Material Project Document;
- 11.6.13 any material delay in the anticipated Commissioning Date; and
- any of the events to which reference is made in Section 10.4.

11.7 **Operating Budget**

The Borrower shall deliver to the Collateral Agent, not later than ninety (90) days prior to the anticipated Commissioning Date, the O&M Budget.

11.8 **Disbursement Account Reconciliation Report**

The Borrower shall deliver to the Collateral Agent and the Independent Engineer a reconciliation report on or before the last Business Day of each month during the Construction Period, which shall be executed by a Responsible Officer of the Borrower, in his capacity as an officer of the Borrower and without personal liability, providing:

- 11.8.1 a detailed listing of all disbursements from the Borrower Disbursement Account during the prior month; and
- a description of any variances between the Project Costs, Operating Costs and Sustaining Costs paid from the Borrower Disbursement Account and amounts deposited into the Borrower Disbursement Account from the Borrower Project Funding Account for the prior month.

11.9 **Other Information**

Following each request, the Borrower shall furnish to the Collateral Agent, such data, certificates, reports, statements, documents or further information regarding the Project or the business, Assets, liabilities, financial position or results of operations of the Borrower as the Collateral Agent may request including any certificates and documents that the Collateral Agent may request in order to monitor the compliance of the Borrower with any AML Legislation.

11.10 **Distribution by Use of Websites**

The Borrower may satisfy its obligations under this Agreement to deliver to the Collateral Agent, or any advisor thereof, including the Independent Engineer, copies of the information, notices, reports and documents referred to in this Agreement, including those referred to in Article 7 by posting this information onto a secure and confidential electronic website (which shall include IntraLinks) designated by the Borrower to which the Collateral Agent and the Funding Vehicle have access and which creates automatic notice of posting to the access list. The Borrower shall supply the Collateral Agent and the Funding Vehicle with the address of and any relevant password specifications for that designated website. Any website designated pursuant to this Section 7.9 must have appropriate and sufficient archiving and retrieval capabilities (including, without limitation, the ability to retrieve materials in printable form) as well as business interruption and server redundancy features, all as approved by the Collateral Agent.

ARTICLE 12

NEGATIVE COVENANTS

So long as the ML Construction Loan or any other amount payable hereunder is outstanding and unpaid or the Borrower shall have the right to borrow hereunder (whether or not the conditions to borrowing have been or can be fulfilled) and unless the Collateral Agent shall otherwise consent in writing, the Borrower hereby covenants that:

12.1 **Liens**

The Borrower will not create, incur, assume or suffer to exist any Lien upon or in respect of any of its present or future Assets other than Permitted Encumbrances.

12.2 **Indebtedness**

The Borrower will not incur, create, assume or suffer to exist any Indebtedness except for:

- 12.2.1 Indebtedness under this Agreement and the other ML Project Finance Documents;
- 12.2.2 Indebtedness secured by a Lien which is a Permitted Encumbrance (other than a Lien securing Purchase Money Obligations);
- trade payables or similar Indebtedness incurred in the ordinary course of business and for the purpose of carrying on same, representing the deferred purchase price of property or services;
- 12.2.4 Indebtedness under Purchase Money Obligations; <u>provided</u>, <u>however</u>, that the aggregate principal amount of Purchase Money Obligations of the Borrower outstanding at any time shall not exceed CDN\$15,000,000; and
- 12.2.5 Additional Debt incurred by the Borrower provided, however that (i) any such Additional Debt that is secured by Liens on any of the Assets of the Borrower shall be expressly subordinated to the Liens under the ML Security Documents on terms and conditions satisfactory to the Collateral Agent (ii) immediately after incurring such Additional Debt and after giving effect thereto no ML Event of Default shall exist, and (iii) if such Additional Debt is incurred (a) during the Operating Period, the Prospective DSCR would not be less than 1.40 and the DER would not be greater than 70% as evidenced by a certificate signed by a Responsible Officer of the Borrower, in his capacity as an officer of the Borrower and without personal liability, delivered to the Collateral Agent at least five (5) Business Days prior to the incurrence of such Additional Debt or (b) during the Construction Period a certificate signed by a Responsible Officer of the Borrower, in his capacity as an officer of the Borrower and without personal liability, is delivered to the Collateral Agent at least five (5) Business Days prior to the incurrence of such Additional Debt,

confirming that the servicing of such Additional Debt constitutes Project Costs and will therefore be funded as any other Project Costs under the terms of this Agreement and during the Operating Period the servicing of such Additional Debt is provided for by ML Project Revenues in accordance with Section 8.1.2.2.

12.3 **Derivative Instruments**

The Borrower will not enter into or be a party to any Derivative Instrument other than Derivative Instruments which the Borrower may enter into in the normal course of completing the Project to hedge against legitimate risks or exposures in connection with the Material Project Documents or otherwise to complete the Project, provided that such Derivative Instrument does not result in the ML Construction Facility exceeding CDN\$1.3 billion using mark to market monetization formulas acceptable to the Collateral Agent.

12.4 **Business Combinations**

The Borrower will not wind-up, liquidate or dissolve its affairs or enter into any transaction of amalgamation, merger, consolidation or other business combination or convey, sell, alienate, lease or otherwise dispose of (or agree to do any of the foregoing, at any future time) all or substantially all of its Assets, save and except that:

- the Borrower may amalgamate with another Subsidiary of Emera if the amalgamated corporation (and Borrower's Counsel) confirms to the Collateral Agent in writing that it is liable, by operation of law or otherwise, for the obligations of the amalgamating corporations under the ML Project Finance Documents and executes and delivers a confirmatory assumption agreement, in form and substance acceptable to the Collateral Agent;
- the Borrower may convey, sell, alienate, lease or otherwise dispose of all or substantially all of its Assets to another Subsidiary of Emera provided that the purchaser of such Assets executes and delivers to the Collateral Agent an assumption agreement and any supplemental ML Security Documents as may be required by the Collateral Agent, in form and substance acceptable to the Collateral Agent; and
- the Borrower may transfer or assign the ML Assets and Rights to Nalcor or a Subsidiary of Nalcor in accordance with the Development Agreement.

provided that in each of the foregoing cases, at the time any of the transactions contemplated thereunder are carried out and immediately after giving effect thereto, no ML Event of Default shall have occurred and be continuing.

12.5 **Investments**

The Borrower will not make any Investment other than Permitted Investments.

12.6 **Distributions**

- 12.6.1 The Borrower may not declare or make any Distribution to any Person during the Construction Period;
- 12.6.2 The Borrower may not declare or make any Distribution to any Person during the Operating Period save and except that:
 - 12.6.2.1 the Borrower may declare and make Distributions to Emera and any Subsidiary of Emera, on a quarterly basis <u>provided</u>, <u>however</u>, that no ML Event of Default exists on the date of any such proposed Distribution;
 - the Borrower may declare and make Distributions other than those contemplated in Section 12.6.2.1, on a quarterly basis <u>provided</u>, <u>however</u>, that such Distributions are sourced from Distribution Funds on a Distribution Date and the Distribution Conditions are met on such Distribution Date; and
 - the Borrower may declare and make Distributions other than those otherwise provided for in this subsection <u>provided</u>, <u>however</u>, that (i) no ML Event of Default exists on the date of any such proposed Distribution and (ii) such Distribution is made from the Cost Overrun Escrow Account in accordance with paragraph 10.28.2.5.

12.7 **Change of Year-End**

The Borrower will not change its fiscal year-end or the end of any of its fiscal quarters without the consent of the Collateral Agent. On the Closing Date, the fiscal year-end of the Borrower is December 31.

12.8 Change in Business

The Borrower will not effect any change in the nature of its business as described in Section 9.22 or cease to carry on its business.

12.9 **Pension Plans**

Unless required by Applicable Law, the Borrower shall not create any Pension Plan without the consent of the Collateral Agent.

12.10 Sale or Lease of Assets

The Borrower shall not sell, lease or otherwise dispose of its Assets without the consent of the Collateral Agent, whether now owned or hereafter acquired, except for:

12.10.1 disposals of all or substantially all of its assets as permitted pursuant to Section 12.4; and

disposals of obsolete, worn out or other Assets not used or required for the continued operation of the Project up to an aggregate fair market value not to exceed CDN\$10,000,000 per fiscal year of the Borrower, and disposals of other Assets consisting of temporary facilities, equipment and buildings.

12.11 **Subsidiaries**

As of the date of this Agreement, the Borrower has a single Subsidiary, Maritime Link (NL) Transmission Construction Employers' Association Inc. The Borrower shall not create or acquire any additional Subsidiary.

12.12 Material Project Documents

The Borrower shall not cause, consent to, or permit, any termination, amendment or variance of, or waiver of timely compliance with, any of the terms or conditions of or obligations under any Material Project Document save and except:

- any amendments or modifications to cure any defective provisions contained therein or to permit other minor deviations from the terms thereof;
- amendments, waivers or variances that are not adverse to the Borrower or the Project in any material respect; and
- 12.12.3 Change Orders permitted pursuant to Section 10.13.

12.13 **Abandonment of Project**

The Borrower shall not voluntarily abandon construction of the Project and shall not voluntarily abandon the operation of the Project, in each case for a continuous period of more than thirty (30) days, except in the case of Force Majeure where such period shall be extended unless it causes the occurrence of a default under any Material Project Document.

12.14 **Project Accounts**

The Borrower shall not change the location of the Borrower Project Accounts without the prior written consent of the Collateral Agent (such consent not to be unreasonably withheld or delayed), *provided that* (i) the Collateral Agent, (ii) the Borrower, and (iii) such bank to which the Project Accounts are to be moved shall, prior to such change in location, enter into such agreements as the Collateral Agent may request to preserve, perfect and protect the Liens under the Security Documents in the funds standing to the credit of the Project Accounts.

12.15 Non-Arm's Length Transactions

Save and except for Material Project Documents entered into with Affiliates of the Borrower, the Borrower shall not permit any transaction, repay any debt, liabilities or obligations owing to, or transfer any undertaking or property (other than at fair market

value for cash) to, or purchase any undertaking or property from or otherwise enter into any transaction or agreement (other than on commercially reasonable terms) with, any Affiliate (or any Person who, after the completion of the transaction, would become an Affiliate) or any trustee, director, officer, employee, shareholder, unitholder, or Person not dealing at arm's length with the Borrower (within the meaning of the *Income Tax Act* (Canada)).

12.16 <u>Use of Project Sites</u>

The Borrower shall not use any sites of the Project for any purpose other than the construction and operation of the Project, without the consent of the Collateral Agent, and without undue delay, after consultation by the Collateral Agent with such consultants as the Collateral Agent may deem reasonably necessary.

12.17 Amendments to Organizational Documents

The Borrower shall not amend any of its Organizational Documents in a manner that would be reasonably expected to adversely affect the rights and remedies of the Collateral Agent.

12.18 Securities Issuances

The Borrower shall not issue any securities unless the issued securities are concurrently and validly pledged as a first priority Lien, subject to Permitted Encumbrances, in favour of the Collateral Agent.

ARTICLE 13

EVENTS OF DEFAULT

The occurrence of any one or more of the following events shall constitute a ML Event of Default (each such event being herein referred to as a "ML Event of Default"):

13.1 Non-Payment of Principal or Interest

The Borrower fails to pay, when due, any Sinking Fund Payment or amount of principal, interest or fees outstanding hereunder or under any other ML Project Finance Document within five (5) Business Days of the due date thereof.

13.2 **Misrepresentation**

Any representation or warranty made or deemed made by the Borrower herein or in any other ML Project Finance Document is found to have been false, inaccurate, incomplete, fraudulently made, or breached in any material respect.

13.3 **Breach of Covenants**

The Borrower fails to perform or comply with any provision or obligation (other than those specifically referred to in the other Sections of this Article) contained herein or in any other ML Project Finance Document and such failure continues unremedied for a period of thirty (30) days following the issuance to the Borrower by the Collateral Agent of a notice thereof, provided that with respect to Section 10.3, the Borrower shall not be in default of such provision or obligation provided that it is in material compliance with Applicable Law and Authorizations.

13.4 **Unsatisfied Judgments**

Any judgment or decree for the payment of money is entered against the Borrower and is not vacated, discharged, stayed or collateral has not been posted with respect thereto pending appeal within sixty (60) days of the entry thereof, or is not vacated or discharged prior to the expiration of any stay of proceedings applicable thereto, and involves a liability (not paid or fully covered by insurance) the amount of which, singly or when aggregated with all such liabilities of the Borrower, exceeds CDN\$25,000,000.

13.5 **Enforcement Proceeding**

Any Enforcement Proceeding is commenced against the Borrower is not vacated, discharged, dismissed or stayed within sixty (60) days of the commencement thereof, and relates to a material part of the ML Assets and Rights.

13.6 **Insolvency**

An Insolvency Event shall have occurred with respect to (i) the Borrower, or (ii) Emera.

13.7 **Change of Control**

Should Emera cease to Control the Borrower.

13.8 **Default under Completion Guarantee**

Emera fails to commence to perform the "Guaranteed Obligations " (as defined in the Completion Guarantee) or fails to commence to cause the performance of the Guaranteed Obligations within twenty (20) days of the receipt of an "Enforcement Notice" (as defined in the Completion Guarantee) thereunder, or subsequently, fails to perform or cause the performance of the Guaranteed Obligations as contemplated by Section 3.2 of the Completion Guarantee.

13.9 Failure to furnish a Construction Report

Should the Borrower fail to furnish to the Collateral Agent and the Independent Engineer a Construction Report when required under the provisions of Section 11.3 and such failure continues unremedied for a period of thirty (30) days.

13.10 **Denial of Obligations**

Should the Borrower deny to any material extent, its obligations under any ML Project Finance Document or claim any of the ML Project Finance Documents to be rescinded, terminated (other than a scheduled termination), invalid or withdrawn, in whole or in part, or if any ML Project Finance Document ceases to be in full force and effect otherwise than in accordance with the provisions thereof.

13.11 Material Project Documents Default

If the Borrower breaches or defaults under any material provision contained in any Material Project Document and such breach or default has a Material Adverse Effect and such breach or default shall continue unremedied for the applicable cure period or thirty (30) days in the event that no cure period is specified or the Borrower has not obtained, or caused to be obtained, a Replacement Obligor within such cure period of time.

13.12 Non-Permitted Assignment of Material Project Documents

If the Borrower assigns any Material Project Document and such assignment is not permitted under the terms of such Material Project Document.

13.13 **Authorization**

If any Authorization is materially modified, suspended, revoked or cancelled by a Governmental Authority having jurisdiction or if any Authorization expires while it is still required for the Project; provided, however, that the foregoing shall not result in a ML Event of Default if the Borrower diligently pursues and obtains a replacement of such Authorization within thirty (30) days after its material modification, suspension, revocation, cancellation or expiry, and such modification, suspension, revocation or expiry does not result in a Material Adverse Effect or the suspension or termination of the collection of revenues for the Project; and provided further, that the foregoing shall not result in a ML Event of Default if such replacement Authorization cannot be obtained within such thirty (30) day period, as long as the Borrower continues to diligently pursue obtaining such replacement Authorization and such modification, suspension, revocation, cancellation or expiry does not result in a Material Adverse Effect or the suspension or termination of the collection of revenues for the Project.

13.14 Material Project Document Invalidity

If any Material Project Document ceases to be in full force and effect other than as a result of a scheduled termination or Commissioning and the Borrower fails, within thirty (30) days after such Material Project Document so ceases to be in effect, to replace such Material Project Document or cause it to be replaced, if required in the opinion of the Collateral Agent, with an Additional Material Project Document with a Replacement Obligor containing substantially the same terms as such Material Project Document and acceptable to the Collateral Agent.

13.15 Security

If any Lien under the ML Security Documents ceases to constitute a valid and perfected first priority Lien (subject only to Permitted Encumbrances) in the Borrower's Assets (other than Distributions permitted under this Agreement which are still in the possession of the Borrower).

13.16 Insurance Proceeds

In the event of loss or damage to the Project resulting in insurance proceeds of more than CDN\$80,000,000, the insurance proceeds are not sufficient to repair, rebuild or replace the damage or destruction in respect of which the insurance proceeds are payable, unless within ninety (90) days following the payment of such insurance proceeds, the Borrower funds the deficiency to the satisfaction of the Collateral Agent.

13.17 **Abandonment of Project**

If the Borrower fails to comply with the provisions of Section 12.13.

13.18 Unauthorized Transfer

If the Borrower fails to comply with the provisions of Section 12.10.

13.19 **DSCR**

If any ML Compliance Certificate delivered pursuant to Section 11.1 or 11.2 demonstrates that the Retrospective DSCR or the Prospective DSCR is less than 1.10 as at the end of any rolling twelve (12) month period and such default is not remedied within thirty (30) days following the delivery of any such ML Compliance Certificate.

13.20 **Debt Service Reserve**

If, at any time, the balance in the DSRA (plus the amount of each valid Letter of Credit issued to the Collateral Agent pursuant to subsection 8.3.5) is less than the Minimum DSRA Requirement as at then most recent Minimum DSRA Requirement Fixing Date and the Borrower fails to deposit in the DSRA such amounts as are necessary to fund the deficiency within five (5) Business Days following the issuance to the Borrower by the Collateral Agent of a notice to do so.

13.21 Assignment by the Borrower

If the Borrower purports to assign this Agreement without the prior written consent of the Collateral Agent.

ARTICLE 14

REMEDIES

14.1 **Preliminary Measures**

Upon the occurrence of a ML Event of Default (other than a ML Event of Default listed in subsections 14.1.1 to 14.1.7), a one hundred and fifty (150) day consultation period (the "Remedies Consultation Period") shall automatically be triggered during which the Borrower shall meet with the Collateral Agent, Canada and the Funding Vehicle during normal business hours, on request made by the Collateral Agent or the Borrower from time to time during such Remedies Consultation Period reasonably in advance of any proposed meeting, to discuss the ML Event of Default, the cause of such ML Event of Default and potential actions to be taken to cure the ML Event of Default and attempt to come to an agreement on how to implement the remedy for the ML Event of Default in a timeframe acceptable to all such parties. Notwithstanding the existence of any ML Event of Default (other than a ML Event of Default listed in subsections 14.1.1 to 14.1.7) during the Remedies Consultation Period, neither the Collateral Agent nor the Funding Vehicle shall be entitled to exercise any Right, Recourse or Remedy that might otherwise be available to it or them hereunder, under any other ML Project Finance Document or under any Applicable Law including those contemplated in Section 14.2, save and except (i) for the right of the Collateral Agent to apply amounts on deposit in the DSRA to the payment of any Sinking Fund Payments then due and outstanding or any payment under the ML Construction Loan then due and outstanding and (ii) that as of and from the 90th day of such Remedies Consultation Period, the Collateral Agent may issue to the Borrower (but not to third parties) any notices for enforcement required to be issued under Applicable Law similar to the notices required under Section 244 of the Bankruptcy and Insolvency Act (Canada), provided, however, that no such notice may be published, filed or registered in any public registry or elsewhere until the expiry of such Remedies Consultation Period. If at any time during a Remedies Consultation Period, an Insolvency Event (other than an Insolvency Event under clause (v) of the definition of "Insolvency Event") occurs with respect to the Borrower or Emera, then such Remedies Consultation Period shall thereupon terminate. The following ML Events of Default shall not trigger a Remedies Consultation Period:

- 14.1.1 a ML Event of Default under Section 13.6 resulting from an Insolvency Event other than an Insolvency Event under clause (v) of the definition of "Insolvency Event";
- 14.1.2 a ML Event of Default under Section 13.7;
- 14.1.3 a ML Event of Default under Section 13.8;
- 14.1.4 a ML Event of Default under Section 13.10;
- 14.1.5 a ML Event of Default under Section 13.12;

- 14.1.6 a ML Event of Default under Section 13.14 but only to the extent that it relates to the Development Agreement and the Agency and Service Agreement;
- 14.1.7 a ML Event of Default under Section 13.17.

14.2 **Termination and Acceleration**

Upon the occurrence and during the continuance of an Enforcement Event, the Collateral Agent may do any one or more of the following:

- declare the whole or any part of the ML Construction Facility to be cancelled, terminated or reduced, whereupon the Funding Vehicle shall not be required to make any further Advance hereunder in respect of such portion of the ML Construction Facility so cancelled, terminated or reduced;
- 14.2.2 accelerate the maturity of all or any item or part of the ML Construction Loan and declare them and any applicable ML Make-Whole Amount to be payable on demand or immediately due and payable, whereupon they shall be so accelerated and become so payable or due and payable, as the case may be;
- 14.2.3 enforce or realize upon all or any Lien granted under the ML Project Finance Documents:
- suspend any rights of the Borrower under any ML Project Finance Document, whereupon such rights shall be so suspended; and
- take any other action, commence any other suit, action or proceeding or exercise such other rights as may be permitted by any ML Project Finance Document or Applicable Law (whether or not provided for in any ML Project Finance Document) at such times and in such manner as the Collateral Agent may consider expedient,

all without any additional notice, demand, presentment for payment, protest, noting of protest, dishonour, notice of dishonour or any other action being required. If an Enforcement Event occurs and is continuing, the ML Construction Facility shall immediately and automatically be cancelled and the ML Construction Loan and the ML Make-Whole Amount shall be accelerated and become immediately and automatically due and payable without any action on the part of the Collateral Agent or the Funding Vehicle being required.

14.3 **Distribution of Proceeds of Realization**

Any Proceeds of Realization received by any of the Funding Vehicle or the Collateral Agent, as the case may be, shall be applied as follows:

14.3.1 firstly, to pay all costs (including Realization Costs) incurred or paid by the Funding Vehicle and the Collateral Agent up to and including the day any

- Proceeds of Realization are distributed in accordance with the provisions of this subsection 14.3.1;
- 14.3.2 secondly, to pay all other Various Agent Costs and Expenses incurred or paid up to and including the day any Proceeds of Realization are distributed in accordance with the provisions of this subsection 14.3.2;
- 14.3.3 thirdly, to pay all Funding Vehicle Project Costs and Expenses incurred or paid up to and including the day any Proceeds of Realization are distributed in accordance with the provisions of this subsection 14.3.3;
- 14.3.4 fourthly, to pay all Canada Project Costs and Expenses incurred or paid up to and including the day any Proceeds of Realization are distributed in accordance with the provisions of this subsection 14.3.4;
- 14.3.5 fifthly, to pay (i) all interest and ML Financing Fee in respect of the ML Construction Loan, (ii) all principal on the ML Construction Loan and any ML Make-Whole Amount, and (iii) all breakage costs and other losses and expenses, in all cases then due and payable pursuant to the provisions of the Consolidated Transaction Documents up to and including the day any Proceeds of Realization are distributed in accordance with the provisions of this subsection 14.3.5; and
- 14.3.6 lastly, to pay any surplus to any Person or Persons who by Applicable Law shall have the right to receive same.

14.4 **Application of Payments**

Any payments received in respect of the ML Secured Obligations from time to time may, notwithstanding any appropriation by the Borrower but subject to the provisions of Section 14.3, be appropriated to such parts of the obligations of the Borrower under any ML Project Finance Documents and in such order as the Collateral Agent, acting in accordance with the Requisite Instructions sees fit, and the Collateral Agent shall have the right to change any appropriation at any time pursuant to any such Requisite Instructions.

ARTICLE 15

INDEMNITIES

15.1 Change in Law

If the Funding Vehicle determines (which determination shall be evidenced by a certificate submitted to the Borrower and the Collateral Agent by the Funding Vehicle and, in the absence of demonstrable error, such certificate shall constitute *prima facie* evidence of the subject matter thereof among the parties hereto) that:

15.1.1 a Change in Law has made or shall make it unlawful, impracticable or contrary to any Applicable Law for the Funding Vehicle to maintain or give effect to all or

any part of its obligations as contemplated by this Agreement and the other ML Project Finance Documents, or to make or maintain all or any part of the ML Construction Loan hereunder, then the obligations of the Funding Vehicle to maintain or give effect to such part of such obligations or to make or maintain such part of the ML Construction Loan shall terminate and, subject to the provisions of any such Applicable Law and those of Section 15.2 with respect to losses and expenses, the Borrower shall repay in full any such affected ML Construction Loan, together with all interest accrued thereon and the ML Make-Whole Amount, immediately upon demand of the Funding Vehicle or the Collateral Agent; or

15.1.2 a Change in Law has:

- (a) imposed, modified, or deemed applicable any loan ceiling against the Funding Vehicle or imposed, modified or deemed applicable any special Tax (other than a Tax on the overall net income of the Funding Vehicle), reserve, deposit or similar requirement with respect to assets held by, deposits in or for the account of, the acquisition of funds by, or loans by the Funding Vehicle; or
- (b) changed the basis of taxation of payments to the Funding Vehicle under this Agreement (other than a change affecting taxation on the overall net income of the Funding Vehicle); or
- (c) imposed on the Funding Vehicle any other condition (including the amount of capital required or expected to be maintained by the Funding Vehicle as a result of this Agreement) or monetary restraint with respect to this Agreement; and

the result of any of the foregoing is to increase the cost to the Funding Vehicle of making or maintaining the ML Construction Facility, the ML Construction Loan or any part thereof or to reduce any amount receivable by the Funding Vehicle with respect to the ML Construction Loan or any part thereof by an amount which the Funding Vehicle deems in its sole discretion to be material, within ten (10) Business Days of receipt of the certificate referred to above (which certificate shall contain all required computations and reasonable explanations of the amounts required to be paid); then

(d) the Borrower shall pay to Collateral Agent, or as otherwise agreed between the Borrower, the Funding Vehicle and the Collateral Agent (acting in accordance with Requisite Instructions), for the account of the Funding Vehicle, such additional amount computed by Collateral Agent as will, on an after-tax basis, compensate the Funding Vehicle for such additional cost or reduction in amounts receivable which the Funding Vehicle determines to be attributable to the Borrower or the ML Construction Loan made to the Borrower; and

(e) subject to the provisions of Section 15.2 with respect to losses and expenses, the Borrower may repay in full the ML Construction Loan together, in each case, with accrued interest thereon and the ML Make-Whole Amount.

15.2 Reimbursement of Losses and Expenses

Whenever the Funding Vehicle shall sustain or incur any losses and expenses in connection with:

- 15.2.1 the failure of the Borrower to borrow pursuant to a ML Draw Request once delivered (whether by reason of the Borrower's decision not to proceed, the nonfulfilment by the Borrower of any of the conditions set forth herein, the existence of a ML Event of Default on the relevant ML Drawdown Date or for any other reason other than default by the Funding Vehicle resulting from a default by the Funding Vehicle); or
- 15.2.2 the declaration by the Collateral Agent following the occurrence and continuance of an Enforcement Event that the ML Construction Loan is immediately due and payable; or
- 15.2.3 the failure of the Borrower to pay when due any principal, interest, Sinking Fund Payment, fees or other amount under this Agreement when due (whether at maturity, by reason of acceleration or otherwise).

(the events contemplated above shall be referred to individually as a "ML Loss Event" and the funds repaid, not borrowed or not repaid, as the case may be, which are subject to any such ML Loss Event shall be collectively referred to as the "ML Affected Funds").

The Borrower agrees to pay to the Collateral Agent, or as otherwise agreed between the Borrower, the Funding Vehicle and the Collateral Agent (acting in accordance with Requisite Instructions), for the account of the Funding Vehicle, upon demand, an amount certified by the Collateral Agent to be necessary to compensate the Funding Vehicle for all such losses and expenses. The certificate of the Collateral Agent shall also specify the computation and reasonable explanations of the amount to be paid.

15.3 **Environmental Indemnity**

The Borrower shall at all times indemnify and hold harmless the Indemnified Parties against and from any and all losses and expenses of any nature whatsoever, incurred, suffered, sustained or required to be paid by them or any one thereof, under or on account of Environmental Laws, including the assertion of any Lien thereunder (collectively, the "Environmental Losses"), with respect to:

15.3.1 any violation or alleged violation of Environmental Laws, or the presence of any Hazardous Material affecting any Asset of the Borrower in violation of Environmental Laws;

- 15.3.2 any Clean-Up costs incurred by any Governmental Authority or any costs incurred by any other Person or damages from injury to, destruction of, or loss of natural resources, including reasonable costs of assessing such injury, destruction or loss incurred in connection with the property, operations and activities of such other Person or the property, operations and activities of the Borrower as a result of the violation of Environmental Laws by the Borrower;
- 15.3.3 liability for personal injury or property damage arising under any statutory or common law tort theory; and
- 15.3.4 any other environmental matter affecting any Asset of the Borrower or the operations and activities of the Borrower within the jurisdiction of any Governmental Authority.

The obligations of the Borrower under this Section shall arise upon the discovery of any Hazardous Material, whether or not any Governmental Authority has taken or threatened any action in connection with the presence of any Hazardous Material.

15.4 **General Indemnity**

The Borrower hereby indemnifies and holds harmless the Indemnified Parties from and against any and all losses and expenses, joint and several or joint or several, that may be incurred by or asserted or awarded against any Indemnified Party, in each case arising out of or in connection with or relating to any investigation, litigation or proceeding or the preparation of any defence with respect thereto arising out of or in connection with or relating to this Agreement (including, without limitation, any liability that any Indemnified Party incurs by virtue of being found, in respect of the Project, liable as a partner or joint venturer), the other ML Project Finance Documents or the transactions contemplated hereby or thereby, or any use made or proposed to be made with the proceeds of the ML Construction Facility, whether or not such investigation, litigation or proceeding is brought by the Borrower or any of their respective partners, shareholders or creditors, an Indemnified Party or any other Person, or an Indemnified Party is otherwise a party thereto and whether or not the transactions contemplated hereby are consummated, except to the extent such losses and expenses are found in a final judgment to have directly resulted from such Indemnified Party's gross negligence or wilful misconduct.

15.5 Claims under the Indemnities

The Indemnified Party claiming indemnification under Sections 15.3 or 15.4 shall give the Borrower notice in writing of particulars of any claim asserted by third parties against it which is covered by such indemnities and the Borrower shall, within fifteen (15) days, give notice in writing to such Indemnified Party whether it wishes to dispute such claim at their sole cost and expense. The Indemnified Party shall not permit the settlement of or compromise of such claim without the written consent of the Borrower, unless the said fifteen (15) day period has expired without the Borrower having given written notice of its desire to dispute such claim. If the Indemnified Party is unable to obtain timely advice

from the Borrower that it wishes to dispute such claim as aforesaid, the Indemnified Party shall be entitled to deal with such claim in such manner as it deems appropriate. If the Borrower gives such written notice to the Indemnified Party that it does wish to dispute such claim, the Borrower shall have the obligation to contest, settle, compromise or dispute such claim in the name of or on behalf of the Person against whom it is made, at its own cost and expense, and shall at their its cost and expense defend expeditiously the Person against whom such claim is made from all such actions or proceedings to which the said indemnity applies, and the Indemnified Party shall arrange that the Borrower shall have the right to carry on such actions or proceedings in its name; provided that, counsel retained by the Borrower to prosecute such defense is approved by the Indemnified Party and the Borrower (i) shall keep the Indemnified Party advised as to the course of the proceedings, (ii) shall not settle any claim without the prior consent of the Indemnified Party unless the settlement results in a full and final release of the Indemnified Party without cost or any risk to the reputation of the Indemnified Party and does not contain any admission of fault, and (iii) shall prosecute and dispute or conduct such negotiations in good faith and with due diligence; and provided, further that, notwithstanding any provision herein contained, the Indemnified Party shall at all times have the right to retain its own counsel, with the prior written consent of the Borrower and at the reasonable cost and expense of the Borrower, to advise it in any of the foregoing, to appear in its name and act on its behalf in any proceedings or conduct negotiations on its behalf. Subject to the foregoing, the Indemnified Party shall make available to the Borrower copies of all files, books, records and documents, information and data (except for such files, books, records and documents, information and data which are confidential) in the possession and control of the Person against whom the claim is made relevant to such actions or proceedings for the purposes of such defence and shall cause such Person to cooperate without expense to itself in all reasonable respect and to assist in the defence of any such actions or proceedings.

15.6 **Remedial Action**

In the event of:

- 15.6.1 any Release of Hazardous Materials, the threat of a Release of any Hazardous Material or the presence of any Hazardous Material affecting or relating to any Asset of the Borrower in violation of Environmental Laws which, singly or in the aggregate, (i) would result in losses and expenses to the Borrower in excess of CDN\$50,000,000 or (ii) would have a Material Adverse Effect; or
- 15.6.2 the Borrower failing to comply with any of the requirements of Environmental Laws, which non-compliance, singly or in the aggregate, would have a Material Adverse Effect:

the Collateral Agent after having given written notice of the intention of the Funding Vehicle to the Borrower (no later than fifteen (15) Business Days before giving effect to such intention at their election, but without the obligation so to do), may give such notices and/or cause such work to be performed at such property and/or take any and all other actions as the Collateral Agent shall deem necessary or advisable in order to Clean-

Up or cure non-compliance. Any amounts expended by the Collateral Agent in any of the foregoing activities shall be repayable by the Borrower upon the demand of the Collateral Agent, shall form part of the ML Construction Loan and interest thereon shall be computed and be payable at the FV Interest Rate and such amounts shall constitute part of the ML Secured Obligations.

15.7 **Acknowledgement**

The Borrower acknowledges that the Collateral Agent and the Funding Vehicle have agreed to the ML Construction Loan being made in reliance upon the representations, warranties and covenants in this Agreement relating to the environment. For this reason, it is the intention of the Borrower, the Collateral Agent and the Funding Vehicle that the Borrower shall be liable for any liability or Indebtedness arising under this Article even if the amount of liability incurred exceeds the amount of the ML Construction Loan. The liability and Indebtedness of the Borrower arising under this Article shall constitute part of the ML Secured Obligations, shall be secured by the ML Security Documents, are absolute and unconditional and shall not be affected by any act, omission, or circumstance whatsoever, whether or not occasioned by the fault of the Collateral Agent and the Funding Vehicle or any one thereof, except to the extent such liabilities are determined, in a final judgment, to have resulted directly from the gross negligence or wilful misconduct of the Collateral Agent and the Funding Vehicle, their respective directors, officers, employees, advisors, representatives and agents or any one thereof. All of the representations, warranties, covenants and indemnities of this Agreement relating to the environment shall survive the repayment of the ML Construction Loan and shall survive the transfer of any or all right in and to the Assets of the Borrower to any party, whether or not affiliated with them.

The obligations and the Indebtedness arising under Section 15.3 are not in any way diminished by the knowledge of any one of such beneficiaries of the non-compliance by the Borrower with Environmental Laws; they shall survive the repayment of the ML Construction Loan as well as the sale or disposition of the property which is the basis of the indemnity claimed.

ARTICLE 16

SPECIAL PROVISIONS

16.1 Covenant of the Funding Vehicle

The Funding Vehicle covenants and agrees that, on demand made by the Borrower from time to time, it shall claim from the Indenture Trustee any moneys set aside in connection with any redemption of any securities issued by the Funding Vehicle under Section 5.5 of the MTI six (6) years following such setting aside if the holders of such securities have not claimed such amounts and that such amounts be paid to the Funding Vehicle and the Funding Vehicle shall pay same to the Borrower upon receipt.

16.2 Actions and Decisions of the Collateral Agent and Funding Vehicle

Whenever any reference is made in this Agreement to a decision or judgment to be made by, consent or waiver to be granted by, discretion to be exercised by, action to be taken by, request to be made by, or otherwise to the Collateral Agent, the Funding Vehicle or any one of them, or any other Person, including the Collateral Agent's Counsel, the Independent Engineer or the Insurance Consultant, such reference shall be deemed to be a reference to such Person, acting reasonably. Moreover, and without limiting the foregoing, whenever any reference is made in this Agreement to a decision or judgment to be made by, consent or waiver to be granted by, discretion to be exercised by, action to be taken by, request to be made by, or otherwise to, the Collateral Agent, such reference shall be deemed to be to the Collateral Agent, acting in accordance with the Requisite Instructions.

16.3 <u>Directions in Respect of the Funding Vehicle Proceeds Account</u>

The Funding Vehicle and the Borrower acknowledge and agree that the Borrower has an interest in ensuring that the funds in the FV Proceeds Account are properly Invested from time to time, and that such Investments are sufficiently liquid to allow the Funding Vehicle to perform its obligations as lender hereunder, and to allow the Borrower to access the funds necessary under the ML Construction Facility to fund Project Costs as per the terms hereof. In furtherance of the foregoing, the Funding Vehicle directs the Administrator to act in accordance with the instructions of the Borrower, provided such instructions are provided in accordance with the terms of the GAA, with respect to all instructions contemplated in the ML FV Blocked Account Agreement as to the Investments to be made from funds held in the FV Proceeds Account, and the liquidation of such Investments.

ARTICLE 17

MISCELLANEOUS

17.1 **Notice**

17.1.1 Any notice, document or other communication required or permitted to be given or delivered hereunder will be given by personal delivery or courier, or facsimile, or by electronic mail delivery addressed as follows:

17.1.1.1 **To the Collateral Agent:**

The Toronto-Dominion Bank TD Bank Tower 66 Wellington St. W., 9th Floor Toronto ON M5K 1A2 Attention: Michael A. Freeman, Vice President, Loan

Syndications-Agency

Fax: 416-944-6976

E-mail: Michael.Freeman@tdsecurities.com

17.1.1.2 **To the Funding Vehicle:**

ML Funding Vehicle Trust

c/o BNY Trust Company of Canada, as Issuer Trustee 320 Bay Street, 11th Floor Toronto, Ontario M5H 4A6

Attention: Corporate Trust Administration

Fax: (416) 360-1711

17.1.1.3 **To the Borrower:**

NSP Maritime Link Incorporated

1223 Lower Water Street Halifax, NS B3J 3S8

Attention: Corporate Secretary Fax: (902) 428-6171

With a copy to:

NSP Maritime Link Incorporated

9 Austin St.

St. John's, NL A1B 4C1

Attention: Vice President, Corporate Affairs

Fax: (709) 722-2083

17.1.2 All notices, directions and communications will be deemed to have been duly given: at the time delivered by hand if personally delivered or delivered by courier; when sent, if sent by facsimile or e-mail even if sent after the recipient's normal business hours.

17.2 **Amendments and Waivers**

- 17.2.1 Subject to subsection 17.2.2, this Agreement may be changed from time to time by all of the parties hereto.
- 17.2.2 No waiver of any provision of this Agreement, nor consent to any departure by any party therefrom, shall in any event be effective unless the same shall be in writing and signed by all the parties hereto, and then said waiver or consent shall be effective only in the specific instance and for the specific purpose for which

given. No failure on the part of any party to exercise, and no delay in exercising, any right hereunder shall operate as a waiver thereof.

17.3 **Provisions Regarding Liability of Issuer Trustee**

The Issuer Trustee has entered into this Agreement in its capacity as trustee of the Funding Vehicle. Any and all of the representations, warranties, undertakings, covenants, indemnities, agreements and other obligations made on the part of the Issuer Trustee herein and therein are made and intended not as personal representations, warranties, undertakings, covenants, indemnities, agreements and other obligations by the Issuer Trustee or for the purpose or with the intention of binding the Issuer Trustee in its personal capacity, but are made and intended for the purpose of binding only the Assets of the Funding Vehicle. No Assets of the Issuer Trustee (other than the Assets of the Funding Vehicle), whether owned beneficially by it in its personal capacity or otherwise, will be subject to levy, execution or other enforcement procedures with regard to any of the representations, warranties, undertakings, covenants, indemnities, agreements and other obligations of the Funding Vehicle or the Issuer Trustee under this Agreement or any of the documents accessory hereto. No recourse may be had or taken, directly or indirectly against the Issuer Trustee in its personal capacity, any beneficiary of the Funding Vehicle or any Affiliate, shareholder, officer, director, employee or agent of the Issuer Trustee or any predecessor or successor of the Issuer Trustee, with regard to the representations, warranties, undertakings, covenants, indemnities, agreements and other obligations of the Funding Vehicle, the Issuer Trustee or agents of the Issuer Trustee under this Agreement and the documents accessory hereto.

17.4 Successors and Assigns

This Agreement shall be binding upon and shall enure to the benefit of the parties hereto and their respective successors and permitted assigns.

17.5 **No Novation**

Any security provided by the Borrower shall not constitute a payment, nor shall it operate as a novation of any amount due hereunder and shall not operate by way of set-off of, or merge with, any Indebtedness or liability of the Borrower or of any other Person or Persons to the Funding Vehicle under any deed, guarantee, contract, bill of exchange, promissory note, letter of credit, certificate of deposit or other instrument by which the same may now or at any time hereafter be represented or evidenced.

17.6 **Obligation to Pay Absolute**

The obligations of the Borrower to make payments on the ML Construction Loan as and when in this Agreement provided shall be unconditional and irrevocable, and shall be paid strictly in accordance with the terms of this Agreement under all circumstances without any right of compensation or set-off and notwithstanding any defense, right of action or claim of any nature whatsoever which the Borrower may at any time have or have had against the Collateral Agent or the Funding Vehicle, whether in connection with this Agreement or otherwise.

17.7 Rights and Recourses Cumulative

The rights and remedies of the Funding Vehicle and the Collateral Agent under this Agreement shall be cumulative and not exclusive of any right or remedy which the Funding Vehicle would otherwise have and no failure or delay by the Collateral Agent or the Funding Vehicle in exercising any right shall operate as a waiver thereof, nor shall any single or partial exercise of any power or right preclude its other or further exercise or the exercise of any other power or right.

17.8 Further Assurances

The parties hereto agree to execute and deliver such further and other documents and perform and cause to be performed such further and other acts and things as may be necessary or desirable in order to give full effect to this Agreement and every part thereof.

17.9 **Execution in Counterparts**

This Agreement may be executed in counterparts, each of which shall be deemed to be an original and which together shall constitute one and the same agreement.

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ML CREDIT AGREEMENT – SIGNATURE PAGE

IN WITNESS WHEREOF the parties have executed this ML Credit Agreement.

	THE TORONTO-DOMINION BANK, as Collateral Agent
	marieman
By:	
	Name: Michael A. Freeman
	Title: Vice President, Loan Syndications-Agency
By:	
	Name:
	Title:

ML CREDIT AGREEMENT – SIGNATURE PAGE

BNY TRUST COMPANY OF CANADA, as Issuer Trustee of MARITIME LINK FINANCING TRUST, as the Funding Vehicle

By:	83	
	Name: Title:	J. Steven Broude Authorized Signatory
By:		
	Name: Title:	

ML CREDIT AGREEMENT - SIGNATURE PAGE

NSP MARITIME LINK INCORPORATED

as the Borrower

By:

By:

Name: / Title: C

Name:

Title: STEPHEN D. AFTANAS CORPORATE SECRETARY

EXHIBIT A

DEFINITIONS

1.1 **Definitions**

Unless a clear contrary intention appears in the ML Credit Agreement, the capitalized terms used in the ML Credit Agreement shall have the following meanings:

- "Account Bank" means The Toronto-Dominion Bank, or such other bank or financial institution as may from time to time be appointed as Collateral Agent in accordance with the terms of the Collateral Agency Agreement;
- "Account Bank Branch" means such branch of the Account Bank as may be agreed between the Borrower, the Account Bank and the Collateral Agent from time to time;
- "Additional Cost Overrun" has the meaning ascribed to it in paragraph 10.28.2.2 of the ML Credit Agreement;
- "Additional Debt" means (i) an operating line of credit up to a maximum principal amount of CDN\$10,000,000 for the Borrower and (ii) other Debt for Borrowed Money to finance by the Borrower realized Cost Variances prior to Commissioning and Sustaining Costs following Commissioning;
- "Additional Material Project Documents" means the contracts and agreements listed in Part III of Schedule "B" of the ML Credit Agreement;
- "Administration Agreement" means the administration agreement to be entered into among the Funding Vehicle, the Administrator, Canada and the Borrower;
- "Administrator" means the Person that will act as administrator to the Funding Vehicle pursuant to the terms of the Administration Agreement;
- "Advance" means any amount of money advanced or to be advanced (as the context requires) to the Borrower pursuant to the ML Credit Agreement;
- "Affiliate" means, with respect to any Person, any other Person, who directly or indirectly, Controls, is Controlled by or is under direct or indirect common Control with, such Person;
- "Agency and Service Agreement" means the Agency and Service Agreement between Nova Scotia Power Incorporated and the Borrower dated January 28, 2013, as may be amended or supplemented from time to time;
- "Aggregate Account Balances" means as at the Effective Date of the Final Funding Request, the aggregate amount of the Aggregate Borrower Project Funding Account Balances and the Working Capital Reserve Account;

- "Aggregate Borrower Project Funding Account Balances" means, as at any time, (A) during the Construction Period, the aggregate of (i) the balance on deposit at such time in the Borrower Project Funding Account, following the application of paragraphs 8.1.1.2, 8.1.1.3 and 8.1.1.4 of the ML Credit Agreement, including, for greater certainty, any ML Income on Account Balances deriving therefrom, and (ii) the balance on deposit at such time in the Borrower Disbursement Account, following the application of paragraph 8.4.1.2 of the ML Credit Agreement, including, for greater certainty, any ML Income on Account Balances deriving therefrom; or (B) during the Operating Period, the aggregate of (i) the balance on deposit at such time in the Borrower Project Funding Account, following the application of clauses (a) to (i) of paragraph 8.1.2.2 of the ML Credit Agreement, including, for greater certainty, any ML Income on Account Balances deriving therefrom, and (ii) the balance on deposit at such time in the Borrower Disbursement Account, following the application of paragraph 8.4.2.1 of the ML Credit Agreement, including, for greater certainty, any ML Income on Account Balances deriving therefrom;
- "AML Legislation" has the meaning ascribed to it in subsection 10.26 of the ML Credit Agreement;
- "Annual Cost Overrun Instalment Payment" has the meaning ascribed thereto in paragraph 10.28.2.2 of the ML Credit Agreement;
- "Annual Maintenance Plan" means an annual maintenance plan for the Project prepared by the Borrower setting out the O&M Activities to take place in each Operating Year, including required equipment outages and their durations and, where appropriate in accordance with Good Utility Practice, O&M Activities to take place in subsequent Operating Years, and containing such other information as may be required by the Collateral Agent;
- "Annual O&M Budget" means the annual budget for O&M Activities related to the Project prepared by the Borrower for an Operating Year based on the Annual Maintenance Plan for such Operating Year and the O&M Budget, and including the type of expenditure, the amount thereof and the schedule for making such expenditure;
- "Applicable Interest Rate" means the interest rate per annum payable on each Advance under the ML Construction Loan (which is determined by the applicable interest rates pertaining to each tranche of the ML Construction Loan corresponding to each series of FV Bonds and equal to the applicable FV Bond Interest Rate as set out in the applicable schedule to Exhibit B of this Agreement);
- "Applicable Accounting Principles" means GAAP as applied by the Borrower, subject to Applicable Law;
- "Applicable Law" means any Law applicable or relating to any specified Person, property, transaction or event or any of such Person's Assets, and any judgment or award of any Governmental Authority in any proceeding or action to which the Person in question is a party or by which such Person or any of its Assets is bound;

"Assets" means the property and assets, whether tangible or intangible, personal or real, of a specified Person and (to the extent the context so admits) also includes its business and operations. Wherever reference is made to the Borrower's Assets, such reference shall include the Project and all rights of the Borrower relative thereto;

"Authorization" means any authorization, approval, consent, exemption, licence, permit, franchise or no-action letter from any Governmental Authority having jurisdiction with respect to any specified Person, property, transaction or event, or with respect to any of such Person's Assets or from any Person in connection with any contractual right;

"Available ML Construction Facility" means, as at any time, as determined by the Collateral Agent, the lesser of (i) the difference between the ML Construction Facility then in effect and the ML Construction Loan then outstanding, and (ii) the balance on deposit at such time in the FV Proceeds Account;

"Base Cash Flow" means, for any period, Liquidity Reserves plus ML Project Revenues for such period less all Cash Operating Costs;

"Base Equity Contribution" means the amounts invested from time to time by Emera in the Borrower, directly or through one or more of its Subsidiaries, other than the DSRA Equity Contribution, provided, however, that for all purposes of calculating the DER, following the Available ML Construction Facility being nil and the amounts on deposit in the Working Capital Reserve Account being nil, the amounts deposited into the Cost Overrun Escrow Account shall be deemed to form part of the Base Equity Contribution, but not before;

"Basis of Design" means the basis of design described in Schedule "AA" to the extent it relates to the Project;

"Borrower" means NSP Maritime Link Incorporated and includes any successor thereto;

"Borrower Disbursement Account" has the meaning ascribed thereto in Section 8.4 of the ML Credit Agreement;

"Borrower Distribution Reserve Account" has the meaning ascribed thereto in Section 8.5 of the ML Credit Agreement;

"Borrower Insurance Reserve Account" has the meaning ascribed thereto in Section 8.6 of the ML Credit Agreement;

"Borrower Project Accounts" refers collectively to the Borrower Project Funding Account, the DSRA, the Borrower Disbursement Account, the Borrower Distribution Reserve Account, the Borrower Insurance Reserve Account, the Working Capital Reserve Account, the Sinking Fund Account, the Cost Overrun Escrow Account and the Liquidity Reserve Account;

"Borrower Project Funding Account" has the meaning ascribed thereto in Section 8.1 of the ML Credit Agreement;

"Borrower's Counsel" means Osler, Hoskin & Harcourt LLP and Cox & Palmer and each additional or replacement firm of solicitors of recognized national standing as the Borrower may select from time to time;

"Borrower's Real Property Counsel" means Cox & Palmer LLP and each additional or replacement firm of solicitors of recognized national standing as the Borrower may select from time to time;

"Business Day" means a day other than a Saturday, Sunday or statutory holiday in NS or the Province of Ontario or any other day on which banking institutions in Halifax, NS or Toronto, Ontario are not open for the transaction of business;

"Canada" means Her Majesty the Queen in Right of Canada;

"Canada Project Costs and Expenses" means the reasonable costs and expenses (including all reasonable costs and expenses incurred by Canada under any enforcement proceeding instituted pursuant to any of the Funding Transaction Documents or the ML Project Finance Documents) due and payable, as well as any indemnity obligations due and payable by Canada to the Collateral Agent pursuant to the Collateral Agency Agreement or by the Funding Vehicle to Canada pursuant to the Funding Transaction Documents, other than with respect to the reimbursement obligations of the Funding Vehicle set forth in Section 3.01(a) of the GAA;

"Canadian Dollars" or "CDN\$" means the lawful currency of Canada;

"Capital Lease" means, with respect to any Person, any lease or other arrangement relating to property or assets which, in accordance with Applicable Accounting Principles, would be accounted for as a capital lease obligation on a balance sheet of such Person. The amount of any Capital Lease at any date shall be the amount of the obligation in respect thereof which would be included within such balance sheet;

"Capital Stock" means common shares, preferred shares or other equivalent equity interests (howsoever designated) of capital stock of a body corporate, equity preferred or common interests in a limited liability company, limited or general partnership interests in a partnership or any other equivalent such ownership interest;

"Cash Operating Costs" means, for any period, all cash costs of the Borrower relating to the operation of the Project during such period including any Taxes, insurance premiums, management and service fees, professional fees and expenses but excluding Total Debt Service paid during such period;

"CAST Lease" means the lease agreement to be entered into in connection with the Cabot Strait among Canada, NL Crown, NS Crown and the Borrower, as lessee;

"Change in Law" means (i) the adoption or the coming into force of any Law, directive, guideline (whether or not having the force of law) or the interpretation or the administration thereof by a court or a Governmental Authority or other authority charged with such interpretation or administration, (ii) any change in any Law, directive or guideline whether or not having the force of law, or in the interpretation or administration thereof by any court or Governmental Authority or other authority charged with the interpretation or administration thereof, (iii) any reversal by any court or Governmental Authority or other authority of an interpretation of any Law, directive or guideline whether or not having the force of Law or (iv) any change in Applicable Accounting Principles or any requirement, guideline, directive, interpretation or administrative position with respect to Applicable Accounting Principles, in each case, which becomes effective after the Closing Date;

- "Change Order" means any modification to (i) the scope of work or the contract price pursuant to any Material Project Document and/or (ii) the schedule to perform work or deliver products or equipment under any Material Project Document;
- "Clean-Up" means the remediation, containment, removal, treatment, elimination or disposal of any Hazardous Material;
- "Closing Date" means the date that the ML Initial Conditions Precedent are met to the satisfaction of the Collateral Agent or waived by it;
- "Collateral Agency Agreement" means the collateral agency agreement dated the date hereof entered into among the Collateral Agent, the Issuer Trustee, and the GAA Finance Parties:
- "Collateral Agent" means The Toronto-Dominion Bank, in its capacity as collateral agent for the GAA Finance Parties pursuant to the Collateral Agency Agreement, and includes any successor thereof in such capacity;
- "Collateral Agent's Counsel" means McCarthy Tétrault LLP;
- "Commissioning" means the commissioning deemed to have occurred upon the issuance by the Collateral Agent of the Commissioning Confirmation;
- "Commissioning Certificate" means a certificate, substantially in the form of the one attached as Schedule "L" to the ML Credit Agreement, executed by a Responsible Officer of the Borrower in his capacity as an officer of the Borrower and without personal liability, addressed to the Collateral Agent and the Independent Engineer, in form and substance satisfactory to the Collateral Agent, attesting:
 - (i) the realized Cost Variances, if any;
 - (ii) the Punch List Costs and Demobilization Costs;
 - (iii) that the static and dynamic commissioning inspections and tests have been achieved in accordance with the approved commissioning procedures and that the Project has been constructed and mechanically completed in all material respects, in accordance with the Project Plans and Good Utility Practice, save for any Punch List Items and Demobilization List Items;
 - (iv) that all Commissioning Tests, interconnection and reliability tests necessary to demonstrate that the Project meets the specifications and the operating objectives for the Project pursuant to the Project Plans and the Basis of Design have been successfully completed save for any Punch List Items and Demobilization List Items; and
 - (v) that he has no reason to believe that, assuming the proper operation and maintenance of the plant and related equipment and devices forming part of the Project, it will not be able to maintain such required specifications

and operating objectives for a period of at least forty (40) years following the Closing Date;

and shall be accompanied with all such supporting documentation and information as will permit the Collateral Agent and the Independent Engineer, in their judgment, to verify the information and calculations given and made in such certificate;

- "Commissioning Confirmation" means the confirmation to be issued by the Collateral Agent pursuant to Section 7.6 of the ML Credit Agreement, and which shall be in the form attached in Schedule "M";
- "Commissioning Date" means the date and time specified on the Commissioning Confirmation, as the date the Conditions Precedent to Commissioning are met to the satisfaction of the Collateral Agent or waived by it;
- "Commissioning Tests" means the successful completion of the specified static and dynamic commissioning tests set out in the System Completion Plan, which will be prepared in accordance with Schedule DD, and inspections in accordance with the approved commissioning procedures, also set out in the System Completion Plan, and Performance Testing, in order to demonstrate that the Project is able to meet the requirements of the Basis of Design;
- "Completion Guarantee" means the Completion Guarantee by Emera in favour of Canada dated as of November 29, 2013;
- "Conditions Precedent to Commissioning" has the meaning ascribed thereto in Section 7.6 of the ML Credit Agreement;
- "Consolidated Transaction Documents" refers collectively to the Funding Transaction Documents, the ML Project Finance Documents and the Administration Agreement;
- "Construction Period" means the period commencing on the Closing Date and terminating on the earlier of:
 - (i) the day immediately preceding the Commissioning Date;
 - (ii) the date that the ML Construction Facility is terminated and cancelled in its entirety under the provisions of Section 14.2 of the ML Credit Agreement; and
 - (iii) the date of any other cancellation of the ML Construction Facility in its entirety;
- "Construction Report" has the meaning ascribed thereto in Section 11.3 of the ML Credit Agreement;
- "Control" of a Person means the possession, direct or indirect, of the power to elect or appoint a majority of such Person's board of directors or similar governing body, or to

direct or cause the direction of the management, business and/or policies of such Person, whether through ownership of Voting Capital Stock, by contract or otherwise, and, without limiting the generality of the foregoing, a Person shall be deemed to "Control" any partnership of which, at the time, the Person is a general partner or Controls the general partner, in the case of a limited partnership, or is a partner who, under the partnership agreement, has authority to bind the partnership in all other cases (and the terms "Controlled by" and "under common Control with" have a correlative meaning);

"Cost to Complete" means, as at any date, the estimate of the Hard Costs and Soft Costs which will be required to be incurred to attain Commissioning by the Date Certain (including the Punch List Costs and the Demobilization Costs), it being understood that the Project Costs incurred on or prior to such date, and whether already financed or requested to be financed pursuant to any Funding Request or the Final Funding Request, shall not form part of the Cost to Complete;

"Cost Overruns" means in respect of the Project, on any date, an amount equal to: (A) the aggregate remaining project costs to achieve completion of the Project including (i) the remaining costs and payment obligations payable pursuant to the contracted items of the Project Budget including the cost of work completed but not yet paid for, plus (ii) any amounts set out in the Project Budget for non-contracted items of the Project Budget, plus (iii) all other remaining project costs including owners costs (included in the Project Budget but not covered by contract costs) and (iv) any appropriate contingencies and adjustments to such contingencies and escalation amounts and reasonably expected savings payable pursuant to the contracted items and non-contracted items of the Project Budget all as determined by the Borrower and as reviewed by the Independent Engineer as being reasonable, plus (iv) finance costs estimated to be payable to the Commissioning Date in excess of the amount specified for that item in the Project Budget less (B) (i) total project costs in the Project Budget less cumulative Project Costs incurred to date by the Project plus (ii) any cash deposits contained in the Cost Overrun Escrow Account;

"Cost Overruns Certificate" has the meaning ascribed thereto in Section 10.28 of the ML Credit Agreement;

"Cost Overrun Escrow Account" has the meaning ascribed thereto in Section 8.8 of the ML Credit Agreement;

"Cost Variances" means, with regard to any particular construction phase or component of construction and start-up of the Project, the amount by which costs in respect of such construction phase or component is expected to exceed amounts allocated thereto in the Project Budget;

"Current ML Assets and Rights" means such of the ML Assets and Rights that are in existence on the Closing Date;

"**Date Certain**" means the "COD Milestone Date" as defined in and as may be amended in accordance with the terms of the Completion Guarantee;

"DBRS" means DBRS Limited and its successors:

"**Debt for Borrowed Money**" means, with respect to any Person, without duplication, such Person's:

- (i) obligations for borrowed money;
- (ii) obligations under letters of credit or letters of guarantee or obligations to financial institutions who issued such letters of credit or letters of guarantee for the account of such Person;
- (iii) obligations under banker's acceptances, depository bills or depository notes (as these latter two expressions are defined in the *Depository Bills and Notes Act* (Canada);
- (iv) Purchase Money Obligations;
- (v) obligations evidenced by bonds, debentures or promissory notes;
- (vi) redeemable shares of its Capital Stock which are either redeemable at the option of the holder thereof, are redeemable at a fixed date or are redeemable during fixed intervals. The amount of Debt for Borrowed Money of any such Capital Stock shall be the maximum fixed redemption or repurchase price therefor; and
- (vii) the mark to market exposure of such Person under Derivative Instruments;

"Debt Rateable Share" means:

- (i) prior to the date on which DER first becomes equal to 70%, 100%; and
- (ii) following the date on which DER first becomes equal to 70%:
 - (A) at all times prior to the ML Construction Facility being fully disbursed, with respect to any Project Costs that are to be funded at any particular time, and in relation to which an Advance is to be made or, as the case may be, Additional Debt is to be incurred as permitted pursuant to the terms of the ML Project Finance Documents, the percentage equal to the lesser of:
 - (1) 100%; and
 - (2) (a) 70%, plus (b) the difference, if any, between 70% and the DER at the date of calculation (without taking into account such Advance or Additional Debt, as the case may be, in the calculation of DER); and

unless, as a result of the calculations in part (A) of this definition, the Borrower is unable to fund such Debt Rateable Share in its

entirety by reason of (a) the Available ML Construction Facility being exhausted further to the Advance requested to fund such Debt Rateable Share and (b) the Borrower not proposing to incur Additional Debt in an amount sufficient to fund the remaining portion of such Debt Rateable Share (the "**Debt Funding Deficiency**"), in which case the percentage calculated above shall be reduced by a percentage equal to (x) the Debt Funding Deficiency, divided by (y) such Project Costs, minus the portion of the Aggregate Borrower Project Funding Account Balances and the Working Capital Reserve Account Balance used to fund such Project Costs, and multiplied by (z) 100;

- (B) at all times thereafter, with respect to any Project Costs that are to be funded at any particular time, and in relation to which Additional Debt is to be incurred as permitted pursuant to the terms of the ML Project Finance Documents, the percentage equal to the lesser of:
 - (I) the lesser of:
 - (1) 100%; and
 - (2) (a) 70%, plus (b) the difference, if any, between 70% and the DER at the date of calculation (without taking into account such Additional Debt in the calculation of DER); and
 - (II) the percentage resulting from the following calculation:

 $\frac{\textit{the amount of Additional Debt proposed to be incurred to fund such Project Costs}}{\textit{such Project Costs}} \times 100 \; ;$

"Deemed Principal Repayments" means, with respect to any Additional Debt of the Borrower that, by its terms, is repayable in its entirety only at maturity, the amount of the deemed principal repayments calculated as a level dollar principal amortization over the term of such Additional Debt and fully amortizing the principal amount thereof with annual instalments, and shall apply to and be deemed to be required to be made by the Borrower;

"**Demobilization Costs**" means the costs required to complete work on all Demobilization List Items;

"**Demobilization List Items**" has the meaning ascribed to it in Section 10.20 of the ML Credit Agreement;

"**Demobilization Work**" means the work, including incomplete or outstanding any Performance Testing, associated with the dismantling of facilities and associated environmental remedial work, disposal and disposition of tools, machinery, equipment

and materials, removal of temporary systems, demobilization of personnel, close out of leases, payments of fees, licences, legal fees, close-out teams and offices, computers, support systems and personnel, information systems and information technology, performance testing personnel and equipment, final documentation close-out and transfer to operations.

"DER" means:

- (i) in connection with the incurrence test for Additional Debt contemplated in subsection 12.2.5 of the ML Credit Agreement, (a) the sum of the principal amount of the ML Construction Loan, the principal amount of all outstanding Additional Debt and the principal amount of all the Additional Debt proposed to be incurred, less the amount of the balance on deposit in the Sinking Fund Account, divided by (b) the sum of the total under clause (i)(a) of this definition plus (i) the aggregate amount of the Base Equity Contribution, (ii) retained earnings pursuant to Applicable Accounting Principles and (iii) any equity proposed to be invested concurrently with the incurrence of the proposed Additional Debt, expressed as a percentage;
- (ii) for all other purposes, (a) the sum of the principal amount of the ML Construction Loan and the principal amount of all outstanding Additional Debt, less the amount of the balance on deposit in the Sinking Fund Account, divided by (b) the sum of the total under clause (ii)(a) of this definition plus (i) the aggregate amount of the Base Equity Contribution and (ii) retained earnings pursuant to Applicable Accounting Principles, expressed as a percentage;

"**Derivative Instruments**" means any "Swap Transaction" as defined in the 2006 ISDA Definitions published by the International Swaps and Derivatives Association, Inc. and/or any agreement evidencing such transaction;

"**Development Agreement**" means the Maritime Link – Joint Development Agreement between Emera and Nalcor dated as of July 31, 2012, as may be amended or supplemented from time to time;

"**Distribution Certificate**" means the certificate to be issued by the Borrower pursuant to Section 11.4 of the ML Credit Agreement, and which shall be in the form attached in Schedule "N";

"**Distribution Conditions**" means, as at any proposed Distribution Date, the following:

(i) the ML Compliance Certificate delivered pursuant to Section 11.1 or 11.2 of the ML Credit Agreement on or immediately prior to such Distribution Date shall demonstrate, to the satisfaction of the Collateral Agent, that the Borrower achieved a Retrospective DSCR and a Prospective DSCR of at least 1.20:1:

- (ii) the DSRA is funded with an amount equal to the Minimum DSRA Requirement as at such Distribution Date; and
- (iii) no ML Event of Default then exists;

"**Distribution Date**" means a Business Day after the sixth (6th) month following the first day of the Operating Period which can occur (i) no more frequently than once per quarter, (ii) no earlier than five (5) Business Days following the delivery to the Collateral Agent of a Distribution Certificate and (iii) in any particular month, only after the date on which the Collateral Agent is scheduled to receive payment of all amounts due and payable by the Borrower in respect of the ML Construction Loan during such month, including Sinking Fund Payments;

"Distribution Funds" means the amount, determined on a Distribution Date, of (i) cash in the Borrower Project Funding Account after application of all amounts in the Borrower Project Funding Account pursuant to paragraphs (a) to (i) of clause 8.1.2.2 of the ML Credit Agreement and (ii) cash in the Borrower Distribution Reserve Account;

"**Distributions**" with respect to any Person, means:

- (i) the payment or declaration of any dividend or the making of any distribution of any kind or character (whether in cash or property, but expressly excluding any such distribution by way of the payment of dividends by the issuance of Capital Stock of such Person) in respect of any class of the Capital Stock of such Person or to the holders of any class of its Capital Stock;
- (ii) the purchase, redemption or other acquisition or retirement for value of any of its Capital Stock or of any options, warrants or rights to purchase or acquire shares of its Capital Stock;
- (iii) the payment of management fees, commission fees, guarantee fees and other fees or amounts to any holder of Capital Stock of such Person other than in accordance with or pursuant to the provisions of the Material Project Documents; and
- (iv) the setting aside of any funds for any of the foregoing purposes;

"DSCR" is the collective reference to Retrospective DSCR and Prospective DSCR;

"**DSCR Consultation Period**" has the meaning ascribed to it in Section 10.25 of the ML Credit Agreement;

"DSRA" has the meaning ascribed to it in Section 8.3 of the ML Credit Agreement;

"DSRA Drawdown" means the single ML Drawdown under the ML Construction Facility to be made pursuant to the provisions of Section 7.4 of the ML Credit

Agreement, in an amount set out in the Funding Request or Final Funding Request, as the case may be, the whole subject to the Available ML Construction Facility at such time;

"DSRA Equity Contribution" means the amount invested by Emera in the Borrower, directly or through one or more of its Subsidiaries that is applied to the funding of the Equity Rateable Share of the Minimum DSRA Requirement in accordance with the terms of the ML Credit Agreement;

"Easements" means all easements, rights-of-way, rights in the nature of easements, rights of ownership, rights of first refusal or otherwise to acquire same, necessary for the development, maintenance or operation of the Project;

"**Effective Date**" means the date as of which financial information relating to the Project is being provided, it being understood that with respect to:

- (i) any Funding Request or the Final Funding Request, such date shall be the day immediately preceding the date of such Funding Request or Final Funding Request; and
- (ii) any Construction Report, such date shall be:
 - (a) with respect to the first Construction Report, (**A**) where the twentieth (20th) day of the month preceding the month during which such Construction Report is delivered is a Business Day, the Business Day immediately following the twentieth (20th) day of such month, and (**B**) where the twentieth (20th) day of the month preceding the month during which such Construction Report is delivered is not a Business Day, the second Business Day immediately following the twentieth (20th) day of such month, and
 - (b) with respect to every Construction Report thereafter, the first Business Day immediately following the date of delivery of the preceding Construction Report;

"Eligible Project Costs" means, as at any Effective Date, as determined by the Collateral Agent in consultation with the Borrower, the aggregate amount required by the Borrower to pay for Project Costs incurred to and invoiced by such date or, as supported by supporting documentation for the relevant Funding Request or the Final Funding Request in the form attached as Schedule "CC" of the ML Credit Agreement, expected to be incurred to and invoiced by the relevant ML Drawdown Date with respect to work done and goods delivered prior to such dates or with respect to deposits on contracts and in each case with respect to which no previous Funding Request has been issued;

"**Emera**" means Emera Incorporated, a corporation incorporated pursuant to the laws of the Province of NS, and includes its successors;

"Enforcement Event" means:

- (i) each one of the ML Events of Default set forth below:
- 1. an ML Event of Default under Section 13.6 of the ML Credit Agreement resulting from an Insolvency Event other than an Insolvency Event under clause (v) of the definition of "Insolvency Event";
- 2. an ML Event of Default under Section 13.7 of the ML Credit Agreement;
- 3. an ML Event of Default under Section 13.8 of the ML Credit Agreement;
- 4. an ML Event of Default under Section 13.9 of the ML Credit Agreement;
- 5. an ML Event of Default under Section 13.11 of the ML Credit Agreement;
- 6. an ML Event of Default under Section 13.14 of the ML Credit Agreement, but only to the extent that it relates to the Development Agreement and the Agency and Service Agreement;
- 7. an ML Event of Default under Section 13.17; or
- (ii) an ML Event of Default other than an ML Event of Default described in clause (i) above, but, in the case of clause (ii), only to the extent that the Remedies Consultation Period relating to such ML Event of Default has expired and such ML Event of Default continues following such expiry of the Remedies Consultation Period;

"Enforcement Proceeding", with respect to any Person, refers to:

- (i) any right granted to such Person against another Person or the Assets of such other Person as a result of such first Person holding, directly or beneficially, Liens on the Assets of such other Person including: (a) the right to require the surrender of the Assets subject to such Liens; (b) the right to exercise any power of sale over or to foreclose on the Assets subject to such Liens; (c) the right to appoint a receiver for such Person or its Assets; (d) the right to withdraw any authorization to collect accounts subject to such Liens; (e) the right to vote any Capital Stock subject to such Liens or to withdraw any power of attorney to vote any such Capital Stock; and (f) the right to take possession, administer, sell or lease any of the Assets subject to such Liens;
- (ii) the right to seize or request the seizure of the Assets of any other Person; and
- (iii) the right to institute or prosecute any judicial proceeding seeking injunctive relief, the appointment of a receiver, the sale of any Assets or for foreclosure;

"Environmental Law" means, with respect to any Person, any Applicable Law relating to the environment and to such Person or any of its Assets;

"Environmental Losses" has the meaning ascribed to it in Section 15.3 of the ML Credit Agreement;

"Equity Rateable Share" means at all times, with respect to any Project Costs that are to be funded at any particular time, the difference between 100% and the Debt Rateable Share applicable with respect to such Project Costs;

"Excise Tax Act" means the Excise Tax Act (Canada);

"Expropriation Event" means any compulsory transfer or taking by condemnation, expropriation, eminent domain or exercise of a similar power, or transfer under threat of such compulsory transfer or taking, of any part of the Assets of a Person by any Governmental Authority;

"Final Eligible Project Costs" means the Eligible Project Costs remaining unpaid as at the Effective Date of the Final Funding Request, other than the Punch List Costs, the Demobilization Costs and the Minimum DSRA Requirement;

"Final Funding Rateable Share" means, in respect of the funding of each of the DSRA and the Final Eligible Project Costs on the Commissioning Date, the rateable share of the aggregate amount of Funding Requirements requested pursuant to the Final Funding Request attributable to such funding;

"Final Funding Request" means a request, substantially in the form of Schedule "O-1" of the ML Credit Agreement, addressed by the Borrower to the Collateral Agent and the Independent Engineer, specifying:

- (i) the Final Eligible Project Cost plus any applicable Sales Taxes;
- (ii) [Reserved];
- (iii) [Reserved];
- (iv) that no ML Event of Default has occurred and is continuing;
- (v) for purposes of funding the Funding Requirements necessary in connection with the funding of the Final Eligible Project Costs on the Commissioning Date, the Final Funding Rateable Share of the Aggregate Account Balances attributable to such funding of the Final Eligible Project Costs;
- (vi) for purposes of funding the Funding Requirements necessary in connection with the funding of the DSRA up to the Minimum DSRA Requirement on the Commissioning Date, the Final Funding Rateable Share of the Aggregate Account Balances attributable to such funding of the DSRA;
- (vii) [Reserved];

- (viii) [Reserved];
- (ix) for purposes of funding the Funding Requirements necessary in connection with the funding of the Final Eligible Project Costs on the Commissioning Date, the Equity Rateable Share of the difference between the Funding Requirements necessary in connection with the funding of the Final Eligible Project Costs on the Commissioning Date and the portion of the Aggregate Account Balances calculated in paragraph (v) of this definition;
- (x) for purposes of funding the Funding Requirements necessary in connection with the funding of the DSRA up to the Minimum DSRA Requirement on the Commissioning Date, the Equity Rateable Share of the difference between the Funding Requirements necessary in connection with the funding of the DSRA on the Commissioning Date and the portion of the Aggregate Account Balances calculated in paragraph (vi) of this definition;
- (xi) [Reserved];
- (xii) [Reserved];
- (xiii) for purposes of funding the Funding Requirements necessary in connection with the funding of the Final Eligible Project Costs on the Commissioning Date, the aggregate amount requested to be Advanced under the ML Construction Facility and representing the Debt Rateable Share of the difference between the Funding Requirements necessary in connection with the funding of the Final Eligible Project Costs on the Commissioning Date and the portion of the Aggregate Account Balances calculated in paragraph (v) of this definition, provided, however, that if the result of such calculation is negative, such amount shall be deemed to be nil;
- (xiv) for purposes of funding the Funding Requirements necessary in connection with the funding of the DSRA up to the Minimum DSRA Requirement on the Commissioning Date, the aggregate amount requested to be Advanced under the ML Construction Facility and representing the Debt Rateable Share of the difference between the Funding Requirements necessary in connection with the funding of the DSRA on the Commissioning Date and the portion of the Aggregate Account Balances calculated in paragraph (vi) of this definition, provided, however, that if the result of such calculation is negative, such amount shall be deemed to be nil;
- (xv) [Reserved];
- (xvi) [Reserved.];

- (xvii) for purposes of the prefunding of the Sinking Fund Account pursuant to Section 2.9 of the ML Credit Agreement, the Aggregate Account Balances, minus the amounts thereof applied as per the foregoing paragraphs of this definition;
- (xviii) a reconciliation of amounts disbursed from the Borrower Project Funding Account to amounts set forth and approved in any Funding Request provided during the prior month;
- (xix) Soft Costs incurred as at the Effective Date of the Construction Report delivered in the same month as the Final Funding Request by major expense category and compared as against the original Project Budget;

"Financial Statements" means, with respect to any Person, for any period, all prepared in accordance with Applicable Accounting Principles, the balance sheet of such Person as at the end of such period and the related statements of income, retained earnings, shareholders' or partners' equity and cash flows for such period, setting forth in each case, in comparative form, the figures for the corresponding period of the previous fiscal quarter or for the previous fiscal year, as the case may be;

"First ML Drawdown Conditions Precedent" has the meaning ascribed thereto in Section 7.2 to the ML Credit Agreement;

"Fiscal Agent" means the Indenture Trustee, the depositaries of the FV Funds or FV Accounts required under the MTI or any sub-account thereof, any Paying Agent, or any or all of them as the context may require;

"Force Majeure" has the meaning ascribed thereto in the Development Agreement;

"**Fund**" means any fund, reserve fund or account required to be established pursuant to the MTI;

"Funding Request" means a request, substantially in the form of Schedule "P" of the ML Credit Agreement, addressed by the Borrower to the Collateral Agent and the Independent Engineer, specifying:

- (i) the amount of Eligible Project Costs, plus any applicable Sales Taxes, remaining unpaid as at the Effective Date thereof;
- (ii) the Permitted Investments made with the funds in the Borrower Project Accounts;
- (iii) that no ML Event of Default has occurred and is continuing;
- (iv) for purposes of funding the Funding Requirements, the Aggregate Borrower Project Funding Account Balances as at the Effective Date;

- (v) for purposes of funding the Funding Requirements, the Equity Rateable Share of the difference between the Funding Requirements and the Aggregate Borrower Project Funding Account Balances as at the Effective Date, including the amount of any DSRA Equity Contribution required to meet the Minimum DSRA Requirement as at then most recent Minimum DSRA Requirement Fixing Date;
- (vi) for purposes of funding the Funding Requirements, the aggregate amount requested to be Advanced under the ML Construction Facility and representing the Debt Rateable Share of the difference between the Funding Requirements and the Aggregate Borrower Project Funding Account Balances as at the Effective Date, including the Debt Rateable Share of any additional amounts into the DSRA required to meet the Minimum DSRA Requirement as at then most recent Minimum DSRA Requirement Fixing Date;
- (vii) a reconciliation of amounts disbursed from the Borrower Project Funding Account to amounts set forth and approved in any Funding Request provided during the prior month;
- (viii) Soft Costs incurred as at the Effective Date of the Construction Report delivered in the same month as the relevant Funding Request by major expense category and compared as against the original Project Budget; and
- (ix) for purposes of funding the Working Capital Reserve Account, an amount requested to be Advanced under the ML Construction Facility which amount shall not to exceed the difference between the Maximum WCR Amount and the amount on deposit in the Working Capital Reserve Account at the Effective Date of the Funding Request provided, however, that where the conditions precedent set forth in Section 7.8 of the ML Credit Agreement apply to the relevant ML Drawdown, no amount shall permitted to be Advanced in respect of the Working Capital Reserve Account;

"Funding Requirements" means, as at any date, as determined by the Collateral Agent, the total Eligible Project Costs, plus any applicable Sales Taxes, and any additional amounts to be funded into the DSRA to meet the Minimum DSRA Requirement as at then most recent Minimum DSRA Requirement Fixing Date, as at the Effective Date of the Funding Request, Final Funding Request or Post-Commissioning Funding Request, as the case may be;

"Funding Transaction Documents" means the agreements entered into from time to time with respect to such portion of the FV Trust Activities as pertains to the borrowings to be made by or for the benefit of the Funding Vehicle for purposes of onlending to the Borrower pursuant to the ML Project Finance Documents, including the MTI, the FV Bonds, any other loan and debt documents and any security documents executed by the Funding Vehicle in order to secure its obligations under the foregoing;

- "Funding Vehicle" or "ML FV" means the Maritime Link Financing Trust, a trust formed under the Laws of NS pursuant to the FV Declaration of Trust;
- "Funding Vehicle Project Costs and Expenses" means costs and expenses due and payable by the Funding Vehicle to its advisors in connection with the Funding Transaction Documents, including the Independent Engineer and legal advisors including all reasonable costs and expenses incurred by the Funding Vehicle under any Enforcement Proceedings instituted pursuant to any of the Funding Transaction Documents;
- "Future ML Assets and Rights" means such of the ML Assets and Rights that will be acquired by the Borrower following the Closing Date as and when required in order to proceed with construction of the Project in accordance with the Project Schedule, and includes the CAST Lease;
- "FV Blocked Account Agreement" means the blocked account agreement to be entered into among the Account Bank, the Funding Vehicle, as debtor, and the Collateral Agent;
- "FV Bond" means any evidence of indebtedness of the Funding Vehicle authenticated and delivered by the Indenture Trustee under and pursuant to the MTI and each Supplemental Indenture, whether such evidence of indebtedness is a FV Obligation Bond or a FV Pledge Bond thereunder;
- "FV Bond Acceleration Date" means the date on which the FV Bonds are called for payment as a result of the FV Bonds being accelerated pursuant to the MTI and the Supplemental Indentures;
- "FV Bond Interest Rate" means: (i) with respect to each series of FV Obligation Bonds, the interest rate per annum applicable to such series of FV Obligation Bonds pursuant to the MTI and relevant Supplemental Indenture as and when issued for the applicable period and (ii) with respect to each series of FV Pledge Bonds, the interest rate per annum payable by the Funding Vehicle in connection with the underlying Indebtedness secured by such series of FV Pledge Bonds;
- "FV Bond Make-Whole Amount" means the aggregate make-whole amount or premium that would be payable by the Funding Vehicle on the FV Bond Redemption Date or the FV Bond Acceleration Date, as the case may be, pursuant to the MTI and the Supplemental Indentures in respect of the FV Bonds being all redeemed or accelerated at such time prior to their stated maturity;
- "FV Bond Maturity Date" means the maturity date of the applicable FV Bond pursuant to the MTI and the relevant Supplemental Indenture;
- "FV Bond Redemption Date" means, with respect to any FV Bond, the applicable redemption date under the MTI and the relevant Supplemental Indenture;
- "FV Credit Facility" means a credit facility between the Funding Vehicle and one or more lenders established pursuant to the terms of the Funding Transaction Documents;

- "FV Debt" means, at any given time, the total indebtedness of the Funding Vehicle in respect of all FV Bonds issued under and pursuant to the MTI and each Supplemental Indenture:
- "FV Declaration of Trust" means the declaration of trust dated as of the date hereof made by BNY Trust Company of Canada, as Issuer Trustee for the Funding Vehicle as amended, supplemented, restated or otherwise changed from time to time;
- "**FV Obligation Bond**" means a FV Bond issued as direct evidence of the Indebtedness of the Funding Vehicle to the holder thereof;
- "FV Payment" means any payment of principal, interest, fees or other amounts payable by the Funding Vehicle on a FV Bond, in accordance with its terms and the terms of the applicable Supplemental Indenture, or under any other Funding Transaction Document;
- "FV Payment Account" means account of the Funding Vehicle maintained at the Account Bank Branch for purposes of receiving payment from the Borrower under the ML Credit Agreement;
- "**FV Payment Date**" means one (1) Business Day prior to any date on which a FV Payment is payable by the Funding Vehicle;
- "FV Pledge" means, in respect of a FV Bond, a pledge, deposit or delivery of such FV Bond or other agreement between the Funding Vehicle and a FV Bondholder in respect of such FV Bond, in each case made in accordance with Section 4.1 of the MTI;
- "FV Pledge Bond" means a FV Bond which is subject to a FV Pledge;
- "FV Proceeds Account" means account of the Funding Vehicle maintained at the Account Bank Branch for purposes of receiving the proceeds of all FV Bonds issued by it;
- "**FV Trust Activities**" means the activities of the Funding Vehicle permitted under the FV Declaration of Trust;
- "GAA" means the guarantee assurance agreement dated as of the date hereof and entered into among, *inter alios*, Canada, the Collateral Agent, the Funding Vehicle, and the Borrower;
- "GAA Finance Parties" means (i) in reference to the ML Project Finance Documents, the Funding Vehicle, in its capacity as lender under the ML Project Finance Documents, and Canada in accordance with the provisions of the GAA, and (ii) in reference to the Funding Transaction Documents, Canada in accordance with the GAA;
- "GAA Security Documents" means the security documents executed by the Funding Vehicle pursuant to the terms of the GAA;

"GAAP" means (i) generally accepted accounting principles from time to time approved by the Canadian Institute of Chartered Accountants or any successor institution, as of the date on which such calculation, position or determination is made, taken or required to be made or taken in accordance with such accounting principles, or (ii) accounting principles which are recognized as being generally accepted and which are in effect from time to time in the United States, as codified by the Financial Accounting Standards Board or any successor institution, as of the date on which such calculation, position or determination is made, taken or required to be made or taken in accordance with such accounting principles;

"Good Utility Practice" means those project management, design, procurement, construction, operation, maintenance, repair, removal and disposal practices, methods and acts that are engaged in by a significant portion of the electric utility industry in Canada during the relevant time period, or any other practices, methods or acts that, in the exercise of reasonable judgment in light of the facts known at the time a decision is made, could have been expected to accomplish a desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be the optimum practice, method, or act to the exclusion of others, but rather to be a spectrum of acceptable practices, methods or acts generally accepted in such electric utility industry for the project management, design, procurement, construction, operation, maintenance, repair, removal and disposal of electric utility facilities in Canada. Notwithstanding the foregoing references to the electric utility industry in Canada, in respect solely of Good Utility Practice regarding subsea HVdc transmission cables, the standards referenced shall be the internationally recognized standards for such practices, methods and acts generally accepted with respect to subsea HVdc transmission cables. Good Utility Practice shall not be determined after the fact in light of the results achieved by the practices, methods or acts undertaken but rather shall be determined based upon the consistency of the practices, methods or acts when undertaken with the standard set forth in the first two sentences of this definition at such time;

"Governmental Authority" means, in relation to any Person, property, transaction or event, any (i) federal, provincial, state, territorial, municipal or local governmental body (whether administrative, legislative, executive or otherwise), (ii) agency, authority, commission, instrumentality, regulatory body, court or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government, (iii) court, arbitrator, commission or body exercising judicial, quasi-judicial, administrative or similar functions, (iv) private regulatory entity, self-regulatory organization or other similar Person, or (v) other body or entity created under the authority of or otherwise subject to the jurisdiction of any of the foregoing, including any stock or other securities exchange, in each case having jurisdiction over such Person, property, transaction or event;

"Hard Costs" means all of the project management, design, procurement, construction, acquisition and other similar costs identified in the Project Budget, including, without duplication:

- (i) the cost of designing, equipping, procuring, constructing, Commissioning, starting up and testing the Project;
- (ii) the cost of acquiring any of the ML Assets and Rights;
- (iii) real and personal property taxes (but excluding recoverable ad valorem taxes and Sales Taxes) and insurance premiums payable with respect to the Project during the Construction Period;
- (iv) initial working capital requirements of the Project as set forth in the Project Budget;
- (v) the costs of acquiring Authorizations for the Project;
- (vi) the cost of establishing a spare parts inventory specifically for execution of the Project;
- (vii) amounts spent out of the contingency allowances set forth in the Project Budget;
- (viii) all amounts payable under Material Project Documents relating to the construction of the Project, as well as any other agreements with any other contractors supplying goods or services to the Project;
- (ix) the cost of funding the Demobilization Costs;

"Hazardous Material" means any contaminant, pollutant, toxic substances, hazardous material, residual material, waste, dangerous goods, hazardous substances or other similar terms as such terms are defined in any Environmental Law;

"HST" means all amounts exigible pursuant to Part IX of the Excise Tax Act, including, for greater certainty, the Taxes commonly referred to as the goods and services tax (GST) and the harmonized sales tax (HST);

"**IE Contract**" means the agreement for independent engineering services dated as of December 2, 2013 between the Borrower and the Independent Engineer;

"Indebtedness" means, without duplication, for any Person:

- (i) obligations representing the deferred purchase price of property or services;
- (ii) obligations, whether or not assumed, secured by Liens on, or payable out of the proceeds or production from, property owned by such Person;
- (iii) Debt for Borrowed Money of such Person; and
- (iv) any obligation described above, the payment of which is secured by (or for which the holder of such Indebtedness has an existing right, contingent or

otherwise, to be secured by) any Lien upon or in any Assets of such Person, even though such Person has not assumed or become liable for the payment of such Indebtedness;

"Indemnified Parties" means the Collateral Agent, the GAA Finance Parties, each of their Affiliates as well as their respective directors, officers, employees, advisors, representatives and agents;

"Indenture Trustee" means Computershare Trust Company of Canada, a trust company, and includes any successor thereto;

"Independent Engineer" means MWH Canada Inc and any successor thereof and any other engineering consultants appointed from time to time for the Project, with the consent of the Borrower by the Collateral Agent or any other Person from time to time to advise the GAA Finance Parties in replacement thereof, it being understood that only one engineering consultant or firm can occupy this role at any one time;

"Independent Engineer's Confirmation" means a certificate from the Independent Engineer substantially in the form of the one attached as Schedule "Q" of the ML Credit Agreement, addressed to the Collateral Agent in connection with any Construction Report and/or Funding Request or Final Funding Request;

"Initial Cost Overrun Instalment Payment" has the meaning ascribed thereto in paragraph 10.28.2.1 of the ML Credit Agreement;

"Initial Material Project Documents" means the contracts, agreements and Authorizations described or referred to in Part II of Schedule "B" of the ML Credit Agreement;

"**Insolvency Event**" means, in relation to any Person, the occurrence of one or more of the following:

- (i) an order is made, or an effective resolution passed, for the winding-up, liquidation or dissolution of such Person;
- (ii) such Person voluntarily institutes proceedings for its winding up, liquidation or dissolution, or to authorize or enter into an arrangement under the *Corporations Act* (NL) or similar legislation in any other jurisdiction affecting any of its creditors, or takes action to become bankrupt, or consents to the filing of a bankruptcy application against it, or files an assignment, a proposal, a notice of intention to make a proposal, an application, or answer or consent seeking reorganization, readjustment, arrangement, composition, protection from creditors, or similar relief under any bankruptcy or insolvency law or any other similar Applicable Law, including the *Bankruptcy and Insolvency Act* (Canada) and the *Companies' Creditors Arrangement Act* (Canada), or consents to the filing of any such application for a bankruptcy order, or consents to the appointment of an interim receiver, receiver, monitor, liquidator,

restructuring officer or, trustee in bankruptcy of all or substantially all of the property of such Person or makes an assignment for the benefit of creditors, or admits in writing its inability to pay its debts generally as they come due or commits any other act of bankruptcy or insolvency, or suspends or threatens to suspend transaction of its usual business, or any action is taken by such Person in furtherance of any of the foregoing;

- a court having jurisdiction enters a judgment or order adjudging such (iii) Person a bankrupt or an insolvent person, or approving as properly filed an application or motion seeking an arrangement under the Corporations Act (NL) or similar legislation in any other jurisdiction affecting any of its seeking reorganization, readjustment, arrangement, composition, protection from creditors, or similar relief under any bankruptcy or insolvency law or any other similar Applicable Law, or an order of a court having jurisdiction for the appointment of an interim receiver, receiver, monitor, liquidator, restructuring officer or, trustee in bankruptcy of all or substantially all of the undertaking or property of such Person, or for the winding up, liquidation or dissolution of its affairs, is entered and such order is not contested and the effect thereof stayed, or any material part of the property of such Person is sequestered or attached and is not returned to the possession of such Person or released from such attachment within 30 days thereafter;
- (iv) any proceeding or application is commenced respecting such Person without its consent or acquiescence pursuant to any Applicable Law relating to bankruptcy, insolvency, reorganization of debts, winding up, liquidation or dissolution, and such proceeding or application (i) results in a bankruptcy order or the entry of an order for relief and a period of 30 days has elapsed since the issuance of such order without such order having been reversed or set aside or (ii) is not dismissed, discharged, stayed or restrained in each case within 30 days of the commencement of such proceeding or application; or
- (v) such Person has ceased paying its current obligations in the ordinary course of business as they generally become due;

"Insolvency Law" means the *Bankruptcy and Insolvency Act* (Canada), the *Companies' Creditors Arrangement Act* (Canada), the *Winding-Up and Restructuring Act* (Canada) and any plan of arrangement law or any corporations statute permitting a corporation to propose a compromise or an arrangement with respect to creditors or any class of creditors of the corporation or any other like, equivalent or analogous laws of any jurisdiction, domestic or foreign;

"Insolvency Proceeding" refers to any proceeding relating to or arising in connection with or as a result of an Insolvency Event, including:

- (i) an assignment for the benefit of creditors, the filing of an application for a bankruptcy order, a proposal or a notice of intention under the *Bankruptcy* and *Insolvency Act* (Canada) or the *Companies' Creditors Arrangement Act* (Canada) or any other similar Law of any other jurisdiction;
- (ii) the adjudication of any Person as insolvent or bankrupt;
- (iii) the petition or application to any tribunal for any receiver, trustee, liquidator or sequestrator of any Person or for any portion of such Person's property; or
- (iv) anything analogous or having a substantially similar effect to any of the events specified above happens under the Law of any other applicable jurisdiction;

"Insurance Consultant" means Moore McNeil, LLC;

"Intellectual Property Rights" means the rights of the Borrower in or to the following:

- (i) any and all proprietary rights everywhere in the world provided under (a) patent law, (b) copyright law (including moral rights), (c) trade-mark law, (d) design patent or industrial design law, (e) semi-conductor chip or mask work as integrated circuit topography law, or (f) any other statutory provision or common law principle applicable to this Agreement, including trade secret law, which may provide rights in confidential information of the Borrower, the project data, and in trade-marks, ideas, formulae, algorithms, concepts, inventions, processes, show-how or know-how generally, or the expression or use of the confidential information, the project data, or any such trade-marks, ideas, formulae, algorithms, concepts, inventions, processes, show-how or know-how;
- (ii) any and all applications, registrations, licences, sub-licences, franchises, agreements or any other evidence of a right in any of the foregoing; and
- (iii) all (a) licences and waivers and benefits of waivers or, (b) future income and proceeds from, and (c) rights to damages and profits by reason of the infringement or violation of any of the intellectual property rights set out in Sections (i) and (ii) of this definition;

"Investment" means any loan, advance (other than commission, travel and similar advances to officers and employees made in the ordinary course of business), extension of credit (other than accounts receivable arising in the ordinary course of business) or contribution of capital to any other Person or any acquisition of Capital Stock, deposit accounts, certificates of deposit, mutual funds, bonds, notes, debentures or other securities of any other Person or any structured notes, and "Invest" and "Invested" shall have the correlative meaning;

"Issuer Trustee" means BNY Trust Company of Canada, in its capacity as trustee of the Funding Vehicle, and includes any successor thereto in such capacity;

"**Key Sites**" means that part of the ML Land Area described in Schedule T of the ML Credit Agreement being all of the freehold lands owned or to be owned by the Borrower;

"Knowledge" means in the case of any Person, as applicable, the actual knowledge of any of the executive officers of such Person and "Know" and "Known" shall have correlative meanings;

"Law" means any international treaty, any domestic or foreign constitution or any federal, provincial, territorial, state, municipal, county or local statute, law, ordinance, code, rule, regulation or order (including any consent, decree or administrative order) or any directive, guideline, policy or Authorization of any Governmental Authority;

"Letter of Credit" means a letter of credit issued in Canadian Dollars by a Letter of Credit Issuer in favour of the Collateral Agent pursuant to the terms of the ML Credit Agreement which is substantially in the form which has been approved by the Collateral Agent acting in accordance with Requisite Instructions and set out in Schedule "X";

"Letter of Credit Issuer" means a financial institution that is either (a) one of the five largest (by assets) Canadian Schedule I Banks or (b) is a financial institution that has a combined capital and surplus of at least CDN\$1 billion, has a short term debt rating of "A" or better by S&P or "R-1 (low)" or better by DBRS and is regulated by the Office of the Superintendent of Financial Institutions (Canada);

"Lien" means (i) any right of set-off or combination of accounts intended to secure the payment or performance of an obligation, (ii) any interest in property securing an obligation owed to, or a claim by, a Person other than the owner (which for the purposes hereof shall include a possessor under a title retention agreement and a lessee under a Capital Lease), including by way of mortgage, pledge, charge, lien, assignment by way of security, hypothecation, security interest, hire purchase agreement, conditional sale agreement, deposit arrangement, deemed trust, title retention, Capital Lease, discount, factoring or securitization arrangement, deemed trust, on recourse terms, (iii) any preference, priority, adverse claim, levy, execution, seizure, attachment, garnishment or other encumbrance which binds property, and (iv) any agreement to grant any of the foregoing rights or interests;

"Liquidity Reserves" means the total amount of funds on deposit in the Liquidity Reserve Account;

"Liquidity Reserve Account" means the account maintained pursuant Section 8.9 of the ML Credit Agreement;

"Material Adverse Effect" means:

(i) any material adverse change in the Assets or financial condition, of the Borrower;

- (ii) any material impairment in the ability of the Borrower to fulfill any payment covenant or obligation to the Funding Vehicle and the Collateral Agent under the ML Project Finance Documents or to any Material Project Participant under the Material Project Documents; and
- (iii) any material impairment of the Rights, Recourses and/or Remedies of the Collateral Agent or any of the GAA Finance Parties under the ML Security Documents;

"Material Project Documents" refers collectively to the Initial Material Project Documents and the Additional Material Project Documents;

"Material Project Participants" means (i) the Borrower; and (ii) each other Person party to a Material Project Document or an Additional Material Project Document;

"Maximum WCR Amount" means CDN\$50,000,000;

"Minimum DSRA Requirement", with respect to any Minimum DSRA Requirement Fixing Date, means an amount equal to the total interest payable and the portion of the principal amount of the ML Construction Loan repayable under the ML Construction Facility for the period of six months following such Minimum DSRA Requirement Fixing Date;

"Minimum DSRA Requirement Fixing Date" means the date which is six months following the Closing Date and thereafter, the date which is six months after the previous Minimum DSRA Requirement Fixing Date;

"ML Affected Funds" has the meaning ascribed to it in Section 15.2 of the ML Credit Agreement;

"ML Assets and Rights" means all real and personal property (tangible and intangible), contracts, choses in action and assets and undertakings held by the Borrower in connection with an activity or undertaking involving the Project or any part of it, including the Intellectual Property Rights and ML Real Property Interests;

"ML Compliance Certificate" means a certificate, substantially in the form of the one attached as Schedule "R" of the ML Credit Agreement, signed by a Responsible Officer of the Borrower in his capacity as an officer of the Borrower and without personal liability:

- (i) setting forth the calculations required to establish the Retrospective DSCR and the Prospective DSCR, provided, however, that no such calculations shall be provided in any ML Compliance Certificate delivered during the Construction Period;
- (ii) attesting that all of the terms, covenants and conditions of the ML Credit Agreement and each of the other ML Project Finance Documents to be

- performed or complied with by the Borrower at or prior to the date thereof have been performed or complied with;
- (iii) attesting that no ML Event of Default has occurred and is continuing on the date thereof; and
- (iv) attesting that, to the Knowledge of said officer, except as otherwise disclosed to the Collateral Agent in writing, the representations and warranties set forth in Article 9 of the ML Credit Agreement are still true and correct in all material respects as of the date of such certificate (except in the case of representations stated to be as of a specific date) with the same force and effect as if made at and as of such date;
- "ML Construction Facility" means the credit facility which the Funding Vehicle has agreed to make available to the Borrower pursuant to the ML Credit Agreement;
- "ML Construction Loan" means the aggregate of the Advances under the ML Construction Facility together with any other amount of principal, interest, fees and other amounts and interest on arrears of interest, fees and other amounts, in each case, due and payable by the Borrower in respect of the ML Construction Facility;
- "ML Construction Loan Acceleration" means any acceleration of the ML Construction Loan made pursuant to Section 14.2 of the ML Credit Agreement;
- "ML Credit Agreement" means the financing agreement dated as of the date hereof entered into among the Borrower, as borrower, the Funding Vehicle, as lender, and the Collateral Agent;
- "ML Draw Request" means a notice, substantially in the form of the one attached as Schedule "S" of the ML Credit Agreement, issued by the Borrower to the Collateral Agent in connection with any ML Drawdown requested by the Borrower under the ML Credit Agreement;
- "ML Drawdown" means an Advance under the ML Construction Facility;
- "ML Drawdown Date" means any day on which a ML Drawdown is made, provided, however, that in the case of each ML Drawdown made pursuant to a Funding Request, Final Funding Request or Post-Commissioning Funding Request, as the case may be;
- "ML Due Date" means, with respect to any payment due by the Borrower under any ML Project Finance Document, the date on which such payment is required to be made by the Borrower pursuant to the provisions of that ML Project Finance Document (without taking into account any grace period granted to the Borrower to cure any failure to pay) and, where any amount is payable on demand made by the Collateral Agent, the date that the Collateral Agent makes such a demand;
- "ML Event of Default" means any of the events described in Article 13 of the ML Credit Agreement;

- "ML Financing Fee" has the meaning ascribed to it in Section 3.2.1 of the ML Credit Agreement;
- "ML Income on Account Balances" means, with respect to any Borrower Project Account, any interest or other income earned by the Borrower from investment of any sums on deposit in such Borrower Project Account, including any interest or other income earned on the re-investment of such interest or other income so earned;
- "ML Indemnified Parties" means the Collateral Agent, the GAA Finance Parties, each of their Affiliates as well as their respective directors, officers, employees, advisors, representatives and agents;
- "ML Initial Conditions Precedent" has the meaning ascribed to such expression in Section 7.1 of the ML Credit Agreement;
- "ML Interest Payment Date" means an FV Payment Date, as applicable, or such other payment date agreed to by the Borrower and Collateral Agent;
- "ML Land Area" means the land described in Schedule "A" of the ML Credit Agreement in respect of which the Borrower has or will acquire an ML Real Property Interest;
- "ML L/C Issuers" means the issuers of letters of credit under the FV Credit Facility;
- "ML L/C Fee" means the total charges and fees payable by the Funding Vehicle to the ML L/C Issuer in respect of each letter of credit issued under the ML Letter of Credit Facility;
- "ML Letter of Credit Facility" means the credit facility to be made available hereunder to the Borrower by the Funding Vehicle by way of letters of credit issued in Canadian Dollars by the ML L/C Issuer(s);
- "ML Loss Event" has the meaning ascribed to it in Section 15.2 of the ML Credit Agreement;
- "ML Make-Whole Amount" means, with respect to any ML Voluntary Prepayment or ML Construction Loan Acceleration, as the case may be, occurring: (i) at any time during the Construction Period, an amount equal to the FV Bond Make-Whole Amount required to be paid by the Funding Vehicle on the FV Bond Redemption Date or the FV Bond Acceleration Date, as the case may be; and (ii) at any time during the Operating Period, an amount equal to the FV Bond Make-Whole Amount required to be paid by the Funding Vehicle on the FV Bond Redemption Date or the FV Bond Acceleration Date, as the case may be;
- "ML Payment" means any payment of principal, interest, fees, Sinking Fund Payments or other amounts payable by the Borrower under the ML Credit Agreement;

- "ML Project Finance Documents" means the ML Credit Agreement, the ML Security Documents, the Collateral Agency Agreement and each document, instrument or agreement entered into by or between the Funding Vehicle, the Borrower, the Collateral Agent or any other Person in connection with the Funding Vehicle lending funds to the Borrower or which is supplemental to the ML Credit Agreement but expressly excludes the Material Project Documents;
- "ML Project Revenues" means revenues collected from Nova Scotia Power Inc under the cost-recovery framework imposed by the Nova Scotia Utility and Review Board;
- "ML Real Property Interests" means all interests in land that are held by the Borrower in connection with an activity or undertaking involving the Project or any part of it, including interests over, under or in respect of land that is foreshore and land covered by water, freehold and leasehold interests and easements appurtenant thereto, options and Statutory Easements;
- "ML Secured Obligations" refers collectively to all the obligations of the Borrower under the ML Project Finance Documents, including the obligation of the Borrower to repay the ML Construction Loan upon the terms and conditions provided for under the ML Credit Agreement;
- "ML Security Documents" is the collective reference to the agreements and documents referred to in Article 6 of the ML Credit Agreement;
- "ML Voluntary Prepayment" means any voluntary prepayment of the ML Construction Loan made in accordance with Section 2.7 of the ML Credit Agreement;
- "ML Voluntary Prepayment Date" means the date which is two (2) Business Days prior to the FV Bond Redemption Date;
- "ML Voluntary Prepayment Notice" means a notice, substantially in the form of the one attached as Schedule "W" of the ML Credit Agreement, issued by the Borrower to the Collateral Agent in connection with any voluntary prepayment of the ML Construction Loan under the ML Credit Agreement;
- "Moody's" means Moody's Investors Service, Inc. and its successors;
- "MTI" means the master trust indenture to be entered into between the Funding Vehicle and the Indenture Trustee;
- "Nalcor" means Nalcor Energy, a body corporate existing pursuant to the *Energy Corporation Act* (NL), in its own right and not as an agent of NL Crown, and includes any successor thereto;
- "NL" means the Province of Newfoundland and Labrador;
- "NL Crown" means Her Majesty in right of NL;

"Notice" means a communication required or contemplated to be given by any party to any ML Project Finance Document to any of the other parties thereto in accordance with the provisions thereof;

"NS" means the Province of Nova Scotia;

"NS Crown" means Her Majesty in right of NS;

"O&M Activities" means all activities and undertakings performed by or on behalf of the Borrower after the Commissioning Date that are required to operate, maintain and sustain the Project in accordance with Good Utility Practice, including administration and the replacement or overhaul of major components which do not extend the Operating Period and, for greater certainty, includes Sustaining Activities;

"O&M Budget" means the budget prepared by Borrower for the Project setting forth the Operating Costs and Sustaining Costs required to be made for each Operating Year during the Operating Period, including the type of expenditure, the amount thereof and the schedule for making such expenditure;

"Operating Costs" means the costs associated with the performance of the O&M Activities other than Sustaining Costs;

"Operating Period" means the period commencing on the Commissioning Date and terminating on the earlier of:

- (i) the fortieth (40th) anniversary of the Closing Date;
- (ii) the date that the ML Construction Facility is terminated and cancelled in its entirety under the provisions of Section 14.2 of the ML Credit Agreement; and
- (iii) the date of any other cancellation of the ML Construction Facility in its entirety;

"**Operating Report**" has the meaning ascribed to it in subsection 11.1.3 of the ML Credit Agreement;

"Operating Year" means (a) a calendar year during the Operating Period, except that the first operating year will commence on the Commissioning Date and end on December 31 of the calendar year in which such date occurs, and the last operating year will end on the date of expiry of the Operating Period, or (b) such other 12 month period as may be mutually agreed to in writing by the Borrower and Collateral Agent;

"Organizational Documents" means, with respect to any Person, that Person's articles of incorporation, articles of association or other charter documents, by-laws, unanimous shareholder agreement, partnership agreement, and any and all other similar formative agreement, documents and instruments integral to that Person's existence;

"Other Project Costs" means the Project Costs other than Project Costs comprised of the fees, costs and expenses forming part of the Various Agent Costs and Expenses, the Canada Costs and Expenses and the Funding Vehicle Project Costs;

"Paying Agent" means any bank or trust company or other Person designated as a paying agent for a Series of FV Bonds in any Supplemental Indenture and its successors or permitted assigns, or its successor appointed in the manner provided in the MTI or in such Supplemental Indenture;

"Pension Plan" means any plan, program, arrangement or understanding that provides pension or retirement benefits (whether or not registered under any applicable pension benefits or Tax Laws in Canada), including post-retirement employee benefits, which is maintained or contributed to (or to which there is or may be an obligation to contribute) by the Borrower in respect of any individual's employment with the Borrower in Canada or a province or territory thereof;

"Performance Testing" means a physical test of the commissioned equipment, system or part of system to demonstrate that the measured performance characteristics met the specified requirements as contained within specific supplier guaranteed performance specifications or, in the case of a complete system, the overall performance and ranges of performance specified in the System Completion Plan, which will be prepared in accordance with Schedule DD;

"Permitted Encumbrances" means, as at any time, any one or more of the following:

- (i) Statutory Prior Liens; provided that, the Statutory Prior Claims secured thereby are not yet delinquent (taking into account any relevant grace periods);
- (ii) liens for assessments or governmental charges or levies which are not delinquent (taking into account any relevant grace periods) or, if overdue, the validity or amount of which is being contested diligently and in good faith by appropriate proceedings and in respect of which adequate reserves in accordance with Applicable Accounting Principles have been recorded on the balance sheet of such Person;
- (iii) construction, mechanics', carriers, warehousemen's, storage, repairers' and materialmen's Liens but only if the obligations secured by such Liens are not due and delinquent and no Lien has been registered against title to any Assets of such Person or if a Lien has been registered, same is being defended diligently and in good faith by appropriate proceedings and in respect of which adequate reserves in accordance with Applicable Accounting Principles have been recorded on the balance sheet of such Person;
- (iv) easements, encroachments, rights of way, servitudes, licences, reservations, covenants, restrictive covenants or other similar rights in land granted to or reserved by other Persons, rights of way for sewers,

electric lines, telegraph and telephone lines and other similar purposes, or zoning or other restrictions as to the use of real properties, which easements, encroachments, rights of way, servitudes, licences, reservations, covenants, restrictive covenants, other similar rights and restrictions do not, in the aggregate, materially impair the conduct of the business of such Person;

- (v) the reservations, limitations, provisos and conditions, if any, expressed in any original grants from the Crown in right of Canada or any province or territory thereof;
- (vi) title defects or irregularities which are of a minor nature and which do not in the aggregate materially detract from the value of the assets of such Person encumbered thereby or materially interfere with the use thereof in the operation of the business of such Person;
- (vii) Liens, charges or other security interests given to a public utility or any Governmental Authority when required by such utility or other authority; provided that, such Liens do not in the aggregate materially detract from the value of the assets of such Person, or materially interfere with the use thereof in the operation of the business of such Person;
- (viii) servicing agreements, development agreements, site plan agreements, facilities sharing agreements, cost sharing agreements and other similar agreements with Governmental Authorities pertaining to the use or development of any of the assets of such Person; provided that, same have been, are, and continue to be complied with in all material respects, including any obligations to deliver letters of credit and other security as required;
- (ix) applicable municipal and other governmental restrictions, including municipal by-laws and regulations, affecting the use of land or the nature of any structures which may be erected thereon; provided that, such restrictions have been, are, and continue to be complied with;
- (x) Liens arising from court or arbitral proceedings; provided that, the claims secured thereby are being contested diligently and in good faith by such Person, execution thereon has been stayed and continues to be stayed and such Liens do not, in the aggregate, impair the use of any assets of such Person in the conduct of business;
- (xi) deposits of cash securities in connection with any appeal, review or contestation of any security or Lien, or any matter giving rise to any security or Lien, described in paragraph (ix) above;
- (xii) any agreement or arrangement pursuant to which such Person pledges cash to any insurer, guarantor or third party contractor, made in the ordinary course of business to secure the performance of bids, tenders, contracts

- (other than contracts of debt), leases, customs duties and other similar obligations;
- (xiii) Liens arising solely by virtue of any statutory or common law provision relating to banker's liens, rights of combination of accounts or similar rights in the ordinary course of conducting day-to-day banking business in relation to deposit accounts or other funds maintained with a creditor depository institution (collectively, "Banker's Liens"); provided that, such Banker's Liens (a) do not relate to any deposit account that is a dedicated cash collateral account which is subject to restrictions against access by the depositor or account holder, (b) do not relate to any deposit account intended by the depositor or account holder to provide collateral to the depository institution, and (c) in respect of the Borrower only, are not intended directly or indirectly to secure the payment or performance of Indebtedness or any other obligation other than Additional Debt;
- (xiv) any Lien securing Purchase Money Obligations permitted to be outstanding under subsection 12.2.4 of the ML Credit Agreement; provided that, each such Lien only affects the property with respect to which the Purchase Money Obligation it secures was incurred;
- (xv) Liens securing Additional Debt permitted to be outstanding under subsection 12.2.5 of the ML Credit Agreement;
- (xvi) exceptions and qualifications in Sections 4, 5, 6, 7, 8 and 15 of the *Lands Act* (NL); and
- (xvii) exceptions and qualifications in Sections 7, 16, 20, 24 and 26 of the *Crown Lands Act* (NS), in Sections 20, 21, 40, 45, 52, 73, 74 and 75 of the *Land Registration Act* (NS) and in Sections 18, 25, and 27 of the *Registry Act* (NS);

"Permitted Investments" means book based securities, negotiable instruments, investments or securities that evidence:

- (i) obligations issued or fully guaranteed by the Government of Canada;
- obligations issued or fully guaranteed by any Province of Canada which has a long term debt rating of "A+" or better by S&P, "A (high)" or better by DBRS or "A1" or better by Moody's, and has such rating from at least two of the Rating Agencies;
- (iii) demand deposits of depository institutions, term deposits of depository institutions or certificates of deposit of depository institutions, in each case where any such depository institution is either (a) one of the five largest (by assets) Canadian Schedule I Banks or (b) is a depository institution that has a combined capital and surplus of at least CDN\$1 billion, has a short term debt rating of "A 1+" or better by S&P or "R-1 (middle)" or

- better by DBRS and is regulated by the Office of the Superintendent of Financial Institutions (Canada);
- (iv) deposits with and notes or bankers' acceptances issued or accepted by any depository institution described in (iii) above;
- (v) money market funds which have a rating of "AAA m" or better by S&P or "R-1 (middle)" or better by DBRS or have otherwise been approved in writing by the Collateral Agent; and
- (vi) any other investments approved in writing by the Collateral Agent;

"**Person**" means an individual, corporation, estate, partnership, trust, joint venture, other legal entity, unincorporated association or Governmental Authority;

"Post-Commissioning Drawdown" means an ML Drawdown under the ML Construction Facility to be made pursuant to provisions of Section 7.5 of the ML Credit Agreement, in an aggregate amount requested to be Advanced under the ML Construction Facility and representing the Debt Rateable Share of the difference between the Funding Requirements necessary in connection with the funding of the Post-Commissioning Eligible Project Costs and the Aggregate Borrower Project Funding Account Balances as at the Effective Date, the whole subject to the Available ML Construction Facility at such time;

"Post-Commissioning Eligible Project Costs" means the Demobilization Costs and the Punch List Costs remaining unpaid as at the Effective Date of the Post-Commissioning Funding Request;

"Post-Commissioning Funding Request" means a request, substantially in the form of Schedule "O-2" of the ML Credit Agreement, addressed by the Borrower to the Collateral Agent and the Independent Engineer, specifying:

- (i) the amount of Post-Commissioning Eligible Project Costs, plus any applicable Sales Taxes, remaining unpaid as at the Effective Date thereof;
- (ii) the Permitted Investments made with the funds in the Borrower Project Accounts;
- (iii) that no ML Event of Default has occurred and is continuing;
- (iv) for purposes of funding the Funding Requirements, the Aggregate Borrower Project Funding Account Balances as at the Effective Date;
- (v) for purposes of funding the Funding Requirements, (a) the Equity Rateable Share of the difference between the Funding Requirements and the Aggregate Borrower Project Funding Account Balances as at the Effective Date, minus (b) the amount determined in clause (iii) of the definition of Funding Requirements;

- (vi) for purposes of funding the Funding Requirements, the aggregate amount requested to be Advanced under the ML Construction Facility and representing the Debt Rateable Share of the difference between the Funding Requirements and the Aggregate Borrower Project Funding Account Balances as at the Effective Date;
- (vii) a reconciliation of amounts disbursed from the Borrower Project Funding Account to amounts set forth and approved in any Post-Commissioning Funding Request provided during the prior month; and
- (viii) Soft Costs incurred as at the Effective Date by major expense category and compared as against the original Project Budget;

"**PPSA**" means the *Personal Property Security Act* (NS) and/or *Personal Property Security Act* (NL);

"**Proceeding**" means any action, suit, inquiry, investigation, arbitration or dispute settlement procedure, or any court, administrative, regulatory or similar proceeding (whether civil, quasi-criminal or criminal);

"Proceeds of Realization" refers to any and all monies received, collected, generated or that arose from the exercise of any Rights, Remedies and/or Recourses including any monies involved in any operation of set-off;

"Project" means "Maritime Link" as defined in the Development Agreement;

"**Project Budget**" refers to the budget of Project Costs set forth in Schedule "U" of the ML Credit Agreement;

"Project Costs" means collectively, without duplication, the Hard Costs and the Soft Costs and all other costs, fees and expenses relating to the development, construction and closing of financing of the Project, including the capital costs of any structures, and all financial, legal and consulting fees, costs and expenses, including any bonus payable to any Material Project Participant under any Material Project Document and the fees, costs and expenses forming part of the Various Agent Costs and Expenses, the Canada Project Costs and Expenses and the Funding Vehicle Project Costs and Expenses, all as described in the Project Budget, whether such Project Costs are incurred by Emera prior to the Closing Date or by the Borrower at any time;

"Project Plans" refers collectively to the plans, specifications, drawings, philosophies, design data, purchase order and contract drawings and documents which refer to the Project, produced by various Persons, including the Borrower, suppliers, engineering consultants and contractors, general and construction contractors, commissioning and startup specialists for the purpose of the development of the Project;

"Project Schedule" means the schedule for construction and Commissioning of the Project as initially set forth in Schedule "V" of the ML Credit Agreement and as may be amended from time to time;

"Prospective Debt Service Coverage Ratio" or "Prospective DSCR" means, as at any date of calculation thereof, the Base Cash Flow of the Borrower for the period of twelve (12) calendar months immediately following the date of calculation, divided by:

- (i) where the calculation is being made during the Operating Period for the purposes of subsection 12.2.5 of the ML Credit Agreement in connection with any determination of whether the Borrower may incur Additional Debt, Total Debt Service for the same period, calculated on a rolling basis and including therein the Additional Debt proposed to be incurred as if such Additional Debt had been incurred on the first day of such period; and
- (ii) where the calculation is being made for any other purpose, Total Debt Service for such period;

"Punch List Costs" means the costs required to complete work on all Punch List Items;

"**Punch List Items**" has the meaning ascribed to it in Section 10.20 of the ML Credit Agreement;

"Purchase Money Obligation" means, with respect to any Person, any indebtedness assumed as part of, or issued or incurred in respect of, the cost of acquisition, including by way of conditional sales contract or leasing by way of a Capital Lease of any property (including shares of Capital Stock) or of the cost of construction, improvement or extension of any property acquired, constructed, improved or extended or leased by way of a Capital Lease, which indebtedness existed at the time of acquisition, construction, improvement or extension or was created, issued, incurred, assumed or Guaranteed contemporaneously with the acquisition, construction, improvement or extension or leasing by way of a Capital Lease or within ninety (90) days after the Commissioning thereof and includes any extension, renewal or refinancing of any such indebtedness if the amount thereof outstanding on the date of such extension, renewal or refinancing is not increased, it being expressly understood that Purchase Money Obligation shall not include any trade payables incurred in the ordinary course of business and for the purpose of carrying on same;

"Rating Agency" means any of S&P, Moody's and DBRS and its respective successors or, if such rating agencies or their successors do not remain in operation in Canada, such nationally recognized statistical rating agency or other comparable Person designated by the Borrower;

"Realization Costs" refers collectively to:

(i) all costs and expenses incident to the exercise of Rights, Remedies and/or Recourses including reasonable fees and out-of-pocket expenses of counsel, accountants and other professionals, escrow fees, recording fees, broker's fees, any fees, costs and expenses incurred in connection with any sale or foreclosure of any property or asset, and all applicable transfer

- taxes that may be imposed by reason of any such sale or foreclosure and the delivery of any and all instruments in connection therewith;
- (ii) any claim or debt, in principal, interest, fees and other amounts which, notwithstanding the provisions of any ML Project Finance Document, by Law is payable by preference over the ML Secured Obligations; and
- (iii) the fees, costs and expenses of the Funding Vehicle and the Collateral Agent exercising Rights, Remedies and/or Recourses, including any indemnity paid to any thereof;

"Recoverable Operating Costs" means that portion of Operating Costs incurred or to be incurred by the Borrower in any period which is approved to be recoverable from assessments, rates or other levies approved by the UARB for the payment of Operating Costs;

"Registration" means any notice to or filing, publication, recording or registration with any Governmental Authority having jurisdiction with respect to any specified Person, transaction or event, or any of such Person's Assets;

"Release" shall mean (i) when used as a verb, release, spill, leak, emit, deposit, discharge, leach, migrate, dump, issue, empty, place, seep, exhaust, abandon, bury, incinerate or dispose into the environment and (ii) when used as a noun, has a correlative meaning;

"Remedies Consultation Period" has the meaning ascribed to it in Section 14.1 of the ML Credit Agreement;

"Repair Conditions" means, in respect of any event giving rise to any insurance proceeds:

- (i) no ML Event of Default has occurred and is continuing other than a ML Event of Default resulting solely from such damage or destruction;
- (ii) the Borrower and the Independent Engineer certify, and the Collateral Agent determines, that repair or restoration of the Project is technically and economically feasible and that a sufficient amount of funds is or will be available to the Borrower to make such repairs and restorations (assuming timely payment by the applicable insurer or insurers of all amounts claimed in good faith by the Borrower);
- (iii) the Collateral Agent determines that after repair and restoration the Project will be able to continue to service the ML Construction Loan and pay all other amounts due to the Funding Vehicle by the Borrower under the ML Credit Agreement, as and when due; and
- (iv) no material Authorization is necessary to proceed with the repair and restoration and no material amendment to the ML Credit Agreement or any of the ML Project Finance Documents and no other instrument, is

necessary for the purpose of effecting the repairs or restorations or subjecting the repairs or restorations to the Liens of the ML Security Documents or, if any such amendment or instrument is necessary, the Borrower will be able to obtain same as and when required;

"Replacement Obligor" means, with respect to any Person party to a Material Project Document (other than the Borrower), any other Person satisfactory to the Collateral Agent, who, pursuant to any definitive agreement or definitive guarantee satisfactory to the Collateral Agent, assumes the obligations of such first Person or enters into a new contract on terms and conditions no less favourable to the Borrower, as the case may be, than those which such first Person being replaced is obligated to provide pursuant to the applicable Material Project Document;

"Requisite Instructions" has the meaning ascribed to it from time to time in Section 4.2 of the Collateral Agency Agreement for purposes of the ML Project Finance Documents;

"Responsible Officer" means the president, the chief executive officer, the chief financial officer, a vice-president, the treasurer, the corporate controller, the corporate secretary or the assistant corporate secretary of such Person, provided that, with respect to the Project, it shall mean any of the foregoing officers of such Person or such other person duly authorized by resolution from time to time to execute any document relating to the Project;

"Retrospective Debt Service Coverage Ratio" or "Retrospective DSCR" means, as at any date of calculation thereof, the Base Cash Flow of the Borrower for the period of the then most recently completed twelve (12) calendar months divided by Total Debt Service for the same period, calculated on a rolling basis. When calculating the Retrospective DSCR prior to the completion of twelve (12) full calendar months commencing after the Commissioning Date, only the completed months that commenced after such date and ended on or prior to the date of calculation are to be taken into account;

"Rights, Remedies and/or Recourses" with respect to any Person, refers to any personal action, provisional measure, any other real or personal right, whether same is exercised under the terms of any security or any other recourse whatsoever and including:

- (i) the right to accelerate any Indebtedness owed to such Person or to demand payment of any Indebtedness payable on demand or to demand payment under any Guarantee;
- (ii) the right to institute or prosecute any litigation;
- (iii) the right to set-off;
- (iv) the right to initiate or prosecute Insolvency Proceedings or Enforcement Proceedings; and
- (v) the exercise of the rights of a creditor under any Insolvency Proceeding.

"S&P" means Standard & Poor's Rating Service and its successors;

"Sales Taxes" means sales, transfer, turnover or value added taxes of any nature or kind, including the HST and federal, state and provincial sales and excise taxes;

"Sinking Fund Account" has the meaning ascribed thereto in Section 8.7 of the ML Credit Agreement;

"Sinking Fund Deposit Date" refers to each date referred to as such in each applicable schedule to Exhibit "B" of the ML Credit Agreement;

"Sinking Fund Payment" has the meaning ascribed to it in Section 2.8 of the ML Credit Agreement;

"**Soft Costs**" means all of the financing, administrative and other similar costs identified in the Project Budget, including, without duplication:

- (i) interest payable on the ML Construction Loan or Additional Debt and financing-related fees, costs and other amounts, in each case incurred in connection with the ML Construction Facility or Additional Debt, provided, however, that, if the amortization of the ML Construction Loan has commenced prior to the Commissioning Date, any Sinking Fund Payment that needs to be made;
- (ii) any ML L/C Fees payable pursuant to Section 2.10 of the ML Credit Agreement;
- (iii) all general and administrative costs of the Borrower attributable to the Project as well as those of the Funding Vehicle, and more particularly the payments required to be made by the Administrator under the terms of the Administration Agreement;
- (iv) all principal, interest, financing fees and related costs incurred in connection with Purchase Money Obligations and Capital Leases, in each case incurred in connection with the Project;
- (v) the cost of funding the DSRA with the then applicable Minimum DSRA Requirement; and
- (vi) the fees, costs and other amounts incurred in connection with Derivative Instruments;

"Statutory Easement" has the meaning attributed to it by, and grants to a Holder the rights set forth in, the *Muskrat Falls Project Land Use and Expropriation Act* (NL) and includes, for certainty, any property or assets located upon, constructed, erected or affixed to the land encumbered by a Statutory Easement by or on behalf of the Holder of it;

"Statutory Prior Claims" relative to any Person, means, claims for unpaid wages, vacation pay, worker's compensation, unemployment insurance premiums, pension plan contributions, employee or non-resident withholding Tax, unremitted Sales Taxes (net of applicable input tax credits, in the case of goods and services, value-added and similar taxes), customs duties, realty taxes (including utility charges and business taxes which are collectable like realty taxes) or similar statutory obligations secured by a Lien on such Person's Assets:

"Statutory Prior Liens" means the Liens securing Statutory Prior Claims;

"Subsidiary" means, with respect to any Person, any Person (i) which is Controlled, directly or indirectly by such first Person or (ii) a majority of whose Voting Capital Stock, on a fully diluted basis, is owned directly or indirectly, beneficially or otherwise, by such first Person;

"Supplemental Indenture" means an indenture supplemental to the MTI entered into by the Funding Vehicle and the Indenture Trustee in accordance with the terms of Section 10.1 of the MTI;

"Sustaining Activities" means with respect to O&M Activities, those activities and undertakings of a capital nature which the Borrower determines after the Commissioning Date are necessary to sustain the Project in proper operating condition during the Operating Period;

"Sustaining Costs" means the costs incurred as a result of Sustaining Activities, including an allowance for funds used during construction consistent with the then current regulatory practice in NS;

"Tax" or "Taxes" means any tax, fee, levy, rental, duty, charge, royalty or similar charge including, for greater certainty, any federal, state, provincial, municipal, local, aboriginal, foreign or any other assessment, governmental charge, imposition or tariff (other than tariff charges) wherever imposed, assessed or collected, and whether based on or measured by gross receipts, income, profits, sales, use and occupation or otherwise, and including any income tax, capital gains tax, payroll tax, fuel tax, capital tax, Sales Taxes, value added tax, sales tax, withholding tax, property tax, business tax, ad valorem tax, transfer tax, franchise tax or excise tax, together with all interest, penalties, fines or additions imposed, assessed or collected with respect to any such amounts;

"**Total Debt Service**" means, for the Borrower, for any period, all interest and stand-by fee payments, Sinking Fund Payments and scheduled principal payments required to be made on the ML Construction Loan and on all Additional Debt of the Borrower, provided, however, that:

(i) if any such Additional Debt is only repayable in its entirety at maturity, the amount of Deemed Principal Repayments for such period shall be included in Total Debt Service; and

(ii) for purposes of the Prospective Debt Service Coverage Ratio and the Retrospective Debt Service Coverage Ratio, where the period includes the maturity of any tranche of the ML Construction Loan repayable pursuant to Section 2.6.2 of the ML Credit Agreement, there shall be excluded from the calculation of Total Debt Service the portion of principal amount of the ML Construction Loan payable or, as the case may be, paid on the applicable FV Bond Maturity Date;

"UARB" means the Nova Scotia Utility and Review Board, and includes any successor or replacement energy regulator under the laws of NS;

"Unrecoverable Operating Costs" means that portion of Operating Costs which are not Recoverable Operating Costs;

"Various Agent Costs and Expenses" means (i) the reasonable fees, costs and expenses due and payable, as well as any indemnity obligations due and payable, by the Borrower to the Collateral Agent pursuant to the ML Project Finance Documents, and (ii) without duplication, the fees, costs and expenses due and payable, as well as any indemnity obligations due and payable, by the Funding Vehicle or the Borrower, as the case may be, to the Issuer Trustee, the Collateral Agent, the Administrator, the Indenture Trustee or the Fiscal Agent pursuant to the Funding Transaction Documents (including, in each case, the financial, legal and consulting fees, costs and expenses);

"Voting Capital Stock" means Capital Stock of a Person which carries voting rights or the right to Control such Person generally provided that Capital Stock which carries the right to vote or Control conditionally upon the happening of an event shall not be considered Voting Capital Stock until the occurrence of such event and then only during the continuance of such event;

"WCR Release" means a release of funds from the Working Capital Reserve Account for purposes of funding Eligible Project Costs, the whole in accordance with Section 7.7 or 7.8 of the ML Credit Agreement;

"WCR Release and Equity Funding Notice" means a notice, substantially in the form of the one attached as Schedule "BB" of the ML Credit Agreement, issued by the Borrower pursuant to Section 7.7 or 7.8 of the ML Credit Agreement;

"WCR Release Date" means a day on which a WCR Release is effected;

"Working Capital Reserve Account" has the meaning ascribed thereto in Section 8.10 of the ML Credit Agreement; and

"Working Capital Reserve Account Balance" means, as at the Effective Date of the Final Funding Request, the aggregate of the balance on deposit at such time in the Working Capital Reserve Account including, for greater certainty, any ML Income on Account Balances deriving therefrom.

1.2 Extended Meanings

In each ML Project Finance Document, unless a clear contrary intention appears, the following words and expressions shall be given the extended meanings set out opposite them:

- 1.2.1 "asset" means any undertaking, business, property (real, personal or mixed, tangible or intangible) or other asset;
- 1.2.2 "cancel" means cancel, surrender, repudiate, disclaim, terminate or suspend;
- 1.2.3 "**change**" means change, modify, alter, amend, supplement, restate, extend, renew, compromise, novate, replace, terminate, release, discharge, cancel, suspend or waive;
- 1.2.4 "claim" means claim, claim over, cross-claim, counter-claim, defence, demand, liability, proceeding, judgment, order or award of any court, other Governmental Authority, arbitrator or other alternative dispute resolution authority;
- 1.2.5 "**final judgment**" means a judgment, order, declaration or award of a court, other Governmental Authority, arbitrator or other alternative dispute resolution authority of competent jurisdiction from which no appeal may be made or from which all rights of appeal have expired or been exhausted;
- 1.2.6 "**include**" means include without limitation, and such term shall not be construed to limit any word or statement which it follows to the specific items or matters immediately following it or similar terms or matters;
- "losses and expenses" means losses, costs, expenses, damages, penalties and judgments and awards of any court or other Governmental Authority, arbitrator, mediator or other alternative dispute resolution authority, including any applicable awarded costs, and legal fees and disbursements on a full indemnity basis;
- "paid in full" and "repaid in full" in relation to any payment obligation owing to any person (in this Section 1.2.8, the "obligee") permanent, indefeasible and irrevocable payment in cash (or other freely available funds transfer as may be expressly provided for in the applicable document creating or evidencing such payment obligation) to the applicable obligee in full of such payment obligation in accordance with the express provisions of the applicable document creating or evidencing such payment obligation, without regard to any compromise, reduction or disallowance of all or any item or part thereof by virtue of the application of any bankruptcy, insolvency, fraudulent conveyance, assignment, preference or other similar such laws, any law affecting creditors' rights generally or general principles of equity, and, if applicable, the cancellation or expiry of any commitment of the obligee to lend or otherwise extend credit;

- 1.2.9 "receiver" means a privately appointed or court appointed receiver or receiver and manager, interim receiver, liquidator, trustee in bankruptcy, administrator, administrative receiver and any other like or similar official;
- 1.2.10 "**rights**" means rights, titles, benefits, interests, powers, authorities, discretions, privileges, immunities and remedies (actual or contingent, direct or indirect, matured or unmatured, now existing or arising hereafter), whether arising by agreement or statute, at law, in equity or otherwise;
- 1.2.11 "set-off" means any right or obligation of set-off, compensation, offset, combination of accounts, netting, retention, withholding, reduction, abatement, deduction, counter-claim, cross-claim or any similar right or obligation, or (as the context requires) any exercise of any such right or performance of such obligation; and
- 1.2.12 "written" and "in writing" shall be construed as an original writing, a pdf or facsimile copy of a writing or an e-mail.

1.3 References to Agreements

Each reference in each ML Project Finance Document to any agreement (including this Agreement and any other defined term that is an agreement) shall be construed so as to include such agreement (including all attached schedules, appendices and exhibits) and each change made to it at or before the time in question.

1.4 **References to Statutes**

Each reference in each ML Project Finance Document to any code, statute, regulation, official interpretation, directive or other legislative enactment of any Canadian or foreign jurisdiction (including any political subdivision thereof) shall be construed so as to include such code, statute, regulation, official interpretation, directive or enactment and each amendment, reenactment, reissuance or replacement thereof made at or before the time in question.

1.5 Grammatical Variations

In each ML Project Finance Document, unless a clear contrary intention appears, (i) words and expressions (including words and expressions (capitalized or not) defined, given extended meanings or incorporated by reference therein) in the singular include the plural and vice versa (the necessary changes being made to fit the context), (ii) words in one gender include all genders and (iii) grammatical variations of words and expressions (capitalized or not) which are defined, given extended meanings or incorporated by reference therein shall be construed in like manner.

1.6 **Non-Business Days**

Whenever any payment to be made under a ML Project Finance Document is required to be made or any other action to be taken thereunder is required to be taken on a day other than a Business Day, such payment will be made or such other action will be taken on the next following Business Day. Any payment made after 3:00 p.m. (Halifax, Atlantic time) on a Business Day will be deemed to be made on the next following Business Day.

1.7 **Computation of Time Periods**

In each ML Project Finance Document, with respect to the computation of periods of time from a specified date to a later specified date, unless otherwise expressly stated, the word "from" means "from and including" and the words "to" and "until" mean "to but excluding".

1.8 Accounting Terms; Applicable Accounting Principles

- 1.8.1 Unless a clear contrary intention appears in a ML Project Finance Document, all terms of an accounting or financial nature shall be construed in accordance with Applicable Accounting Principles, as in effect from time to time. For purposes of the calculation of DER and DSCR, such ratios shall be calculated in accordance with the definitions hereof and not in accordance with Applicable Accounting Principles, it being understood that the definition of "Base Equity Contribution" shall be determined in accordance with Applicable Accounting Principles. All calculations for the purposes of determining compliance with any financial ratios and financial covenants contained in any ML Project Finance Document shall be made on a basis consistent with Applicable Accounting Principles used in the preparation of the first Financial Statements of the Borrower delivered under the Project Finance Agreement. Any financial ratios required to be maintained by the Borrower pursuant to any ML Project Finance Document shall be calculated by dividing the appropriate component by the other component, carrying the result to one place more than the number of places by which such ratio is expressed in any ML Project Finance Document and rounding the result up or down to the nearest number (with a round-up if there is no nearest number) to the number of places by which such ratio is expressed therein.
- 1.8.2 The parties hereto agree that if at any time there is a material change to Applicable Accounting Principles, then the Borrower and the Collateral Agent shall use commercially reasonable efforts to negotiate in good faith amendments to the provisions of the applicable ML Project Finance Document that are affected by such material change with the intent of having the respective positions of the Borrower and the Collateral Agent after such material change conform as nearly as possible to their respective positions immediately prior to the implementation of such material change; provided, however, that until any such amendments shall have been agreed upon, the terms, conditions and undertakings of the applicable ML Project Finance Document shall be interpreted and applied as if such material change did not apply to the Borrower and the accounting principles applicable to the Borrower immediately prior to the implementation of such material change shall continue to apply to the Borrower for the purpose of determining if the

Borrower complies with the financial covenants of the applicable ML Project Finance Document and the Borrower shall continue to provide Financial Statements under the applicable ML Project Finance Document prepared in accordance with such accounting principles.

EXHIBIT B

FINANCING AND PAYMENT TERMS AND SINKING FUND PAYMENTS

This Exhibit B will set out the Applicable Interest Rate, the FV Bond Maturity Date, the applicable ML Construction Facility tranche limit, the applicable Sinking Fund Payments and related terms and other applicable terms of each tranche of FV Debt which will be a back to back obligation of the Borrower under the ML Credit Agreement (taking into account among other things, the taxation of the Funding Vehicle). At financial close, there will only be Exhibit B-1 which will set out the terms of the "Credit Facility" as set out in the Payment Obligation Agreement.

EXHIBIT B-1

CREDIT FACILITY

Pursuant to a commitment letter from The Bank of Nova Scotia ("Scotiabank") to Emera dated February 14, 2014, Scotiabank has agreed to arrange a credit facility in favour of ML FV in the aggregate amount of up to \$250,000,000 (the "Credit Facility"). The Credit Facility has a maturity of five years and an accordion feature to increase the size of the Credit Facility by \$100,000,000. In connection with the Credit Facility a pledge bonds shall be issued to Scotiabank for the benefit of itself and the other lenders pursuant to the MTI. The Credit Facility shall be ML Guaranteed Debt (as defined in the Payment Obligation Agreement between the Borrower, Emera and Canada dated November • , 2013).

SCHEDULE "A"

ML LAND AREA

SCHEDULE "B"

MATERIAL PROJECT DOCUMENTS AND AUTHORIZATIONS

Part I - <u>Authorizations obtained</u>

Permit/License Name	Jurisdiction	Granting Body	Status
Heritage Research permit	Nova Scotia	Department of Communities, Culture and Heritage - Heritage Division	Approved - Contractor
Watercourse Alteration Approval	Nova Scotia	Nova Scotia Environment	Approval #2013-087988
Special Move: Over-Dimension Permit / Overweight Permit	Nova Scotia	Business and Consumer Registration Service Nova Scotia and Municipal Relations	Approved – Contractor #01035212013-640550
Coastal Permit	Nova Scotia	DNR - Lands Division	Approval #CP14-006
Application for a Permit to Alter a Body of Water	Newfoundland and Labrador	Department of Environment and Conservation (Water Resources Division)	Approved – WRL/P-13-001
Application for Water Use License	Newfoundland and Labrador	Department of Environment and Conservation (Water Resources Division)	Approved – WRL/P-13-001
Preliminary Application to Develop Land – Construction/ development along a Protected Road or within a Protected Area	Newfoundland and Labrador	Service NL	Approval # 170711 – NLH AT on Crown Lands #170709 – NLH AT on Private Lands
Commercial Cutting Permit Operating Permit - Permit to Burn	Newfoundland and Labrador	Department of Natural Resources, Forestry Services	Approval #14-14-00397
Application for an Archaeological Research Permit to Conduct an Historic Resources Impact Assessment	Newfoundland and Labrador	Department of Tourism, Culture and Recreation	Approved - Contractor

Part II - Initial Material Project Documents

Initiative #	Initiative Description	Estimated Contract Value	Status
E11-18	Submarine Cable Supply & Install		Awarded /Contract
			Executed

Maritime Link - Joint Development Agreement

NSPI Agency and Services Agreement

Energy and Capacity Agreement between Nalcor Energy and Emera

Part III - Additional Material Project Documents

Initiative #	Initiative Description	Estimated Contract Value	Status
E12-74	Converter Stations -Supply & Install		In Progress
E13-85	Transmission Structures and Grillage		In Progress
E13-95	Transmission Line Construction Services		In Progress
E13-137	HDD Construction		In progress

Asset Interconnection Agreement (NL)

Asset Interconnection Agreement (NS)

Transmission Operating Agreement (NL)

Transmission Operating Agreement (NS)

Management Services Agreement with Emera

Management Services Agreement with NSPI

Part IV- Authorizations required for Project not listed in PART I above and PART V below

Permit/License Name	Jurisdiction	Granting Body	Status
Request for Review under the Fish Habitat Protection Provisions of the Fisheries Act	Federal	Fisheries and Oceans	To be determined; permit may be required for cable installation.
Application for Authorization for Works or Undertakings Affecting Fish Habitat	Federal	Fisheries and Oceans	LoA #13=HMAR-MA1- 00263
			#13=HMAR-MA1-00264
Navigable Waters Protection Act Request for Approval	Federal	Transport Canada	To be Prepared
Coasting Trade License (Application for Vessel Temporary Admission to the Coasting Trade of Canada)	Federal	Canadian Transportation Agency (CTA); Canada Border Services Agency (CBSA); Transport Canada; and Public Safety Canada	To be Prepared – Contractor; applicable to cable installation
Notices to Shipping - during any marine activity	Federal	Cape Breton: Sydney Marine Communications and Traffic Services, DFO; NL side, Port-aux-Basques Marine Communications and Traffic Services, DFO	To be Prepared; applicable to cable installation
Notices to Mariners - after cable is laid	Federal	DFO (Canadian Coast Guard)	To be Prepared; applicable to cable installation
Dangerous Goods/Waste Dangerous Goods: Approval	Nova Scotia	Nova Scotia Environment	To be Prepared
Wetland Alteration Approval	Nova Scotia	Nova Scotia Environment	To be Prepared
Pesticide Use and Storage Approval	Nova Scotia	Nova Scotia Environment	To be Prepared Contractor
On-Site Sewage Disposal Approval	Nova Scotia	Nova Scotia Environment	To be Prepared - Contractor
Work Within Highway Right-of-Way Permit	Nova Scotia	Department of Transportation and Infrastructure Renewal	Pending Approval - Contractor
Use of Highway Right of Way of Pole Lines Permit	Nova Scotia	Department of Transportation and Infrastructure Renewal	To be Prepared
Development Permit	Nova Scotia - Municipal	Cape Breton Regional Municipality, Development Division of the Planning Department	To be Prepared
Building Permit	Nova Scotia - Municipal	Fire Services - Manager, Inspection & Bylaw Division, Cape Breton Regional Municipality	To be Prepared

Permit/License Name	Jurisdiction	Granting Body	Status
Footing Permit	Nova Scotia - Municipal	Fire Services - Manager, Inspection & Bylaw Division, Cape Breton Regional Municipality	To be Prepared
Application for a Permit for Water and Sewerage Works and/or Potable Water Dispensing Unit	Newfoundland and Labrador	Department of Environment and Conservation (Water Resources Division)	To be Prepared
Application for a Permit for a Development Activity in a Protected Public Water Supply Area/Wellhead Protected Water Supply Area	Newfoundland and Labrador	Department of Environment and Conservation (Water Resources Division)	Pending Approval
Preliminary Application to Develop Land – Highway Access	Newfoundland and Labrador	Service NL	To be Prepared, indiv. Permits through T&W
Application for Registration of Fuel Storage and Handling Facilities	Newfoundland and Labrador	Service NL	To be Prepared
Application for a Certificate of Approval to establish, alter, enlarge or extend a waste management facility	Newfoundland and Labrador	Service NL	N/A
Application for a Permit for Water and Sewerage Works and/or Potable Water Dispensing Unit	Newfoundland and Labrador	Service NL for Department of Environment and Conservation (Water Resources Division)	To be Prepared
Application for a Building Inspection to Commission Temporary Camp	Newfoundland and Labrador	Service NL for Health Canada National Fire Code National Building Code	To be Prepared
Economic Activity Permit (SAR IMMP incl)	Newfoundland and Labrador	Department of Environment and Conservation (Wildlife Division)	Pending Approval
Trailway Temporary Access Permit	Newfoundland and Labrador	Department of Environment and Conservation - Parks and Natural Areas Division	Pending Approval
Safe Clearance Report	Newfoundland and Labrador	NL Power	To be Prepared - Contractor

Part V - <u>Authorizations Obtained by Emera</u>

SCHEDULE "C"

APPLICABLE LAWS

SCHEDULE "D"

ENVIRONMENT

SCHEDULE "E"

SOURCES AND USES OF FUNDS

Sources and Uses of Funds through Commissioning

Sources:	•
Debt drawdowns	•
Interest component of AFUDC	•
	•
Equity	•
Equity component of AFUDC	•
	•
Total Sources	•
Uses:	
Project cost	•
Waterfall of debt balance into Sinking Fund	•
Reserves and other	•
Total AFUDC (including prior period AFUDC)	•
Total Uses	•

SCHEDULE "F"

LITIGATION

SCHEDULE "G"

CORPORATE STRUCTURE AND LOCATION OF ASSETS

1. NSP MARITIME LINK INCORPORATED

1.1. Jurisdiction of incorporation

Newfoundland and Labrador, Canada

1.2. Persons holding Capital Stock

Emera Newfoundland & Labrador Holdings Incorporated

1.3. Nature of Capital Stock

- Certificate No. 2 dated September 2, 2011 registered in the name of Emera Newfoundland & Labrador Holdings Incorporated representing 1 common share in the Capital Stock of NSP Maritime Link Incorporated.
- Certificate No. 3 dated February 11, 2013 registered in the name of Emera Newfoundland & Labrador Holdings Incorporated representing 25,000,000 common shares in the Capital Stock of NSP Maritime Link Incorporated.
- Certificate No. 4 dated June 24, 2013 registered in the name of Emera Newfoundland & Labrador Holdings Incorporated representing 13,000,000 common shares in the Capital Stock of NSP Maritime Link Incorporated.
- Certificate No. 5 dated September 24, 2013 registered in the name of Emera Newfoundland & Labrador Holdings Incorporated representing 12,500,000 common shares in the Capital Stock of NSP Maritime Link Incorporated.
- Certificate No. 6 dated December 18, 2013 registered in the name of Emera Newfoundland & Labrador Holdings Incorporated representing 11,000,000 common shares in the Capital Stock of NSP Maritime Link Incorporated.

1.4. Location of the principal place of business

9 Austin Street, St. John's, NL A1B 4C1

1.5. Location of the registered and chief executive offices

Scotia Centre, Suite 1000, 235 Water Street, St. John's NL A1C 1B6

1.6. Exact Name

NSP Maritime Link Incorporated

SCHEDULE "H"

ABORIGINAL MATTERS

SCHEDULE "I"

IE CERTIFICATE

This 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 Certificate and not otherwise defined herein shall have the meanings assigned to them in Exhibit A of the ML Credit Agreement.

The Independent Engineer has discussed matters believed pertinent to this Certificate with the Borrower.

On the basis of the foregoing limited review procedures, the Independent Engineer makes the following statement in favour of the Collateral Agent and to the best of its knowledge, information and belief, as of the date hereof:

— Budgeting and maintenance of the Project are being conducted in accordance with Good Utility Practice.

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

Dated:	
	MWH CANADA, INC.
	By:
	Title:

SCHEDULE "J"

OPERATING REPORT

Date:			
Date.			

The Toronto-Dominion Bank

as Collateral Agent TD Bank Tower 66 Wellington Street West 9th Floor Toronto, Ontario M5K 1A2

Gentlemen:

We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

This certificate is delivered to you pursuant to subsection 11.1.3 of the ML Credit Agreement in respect of the fiscal quarter of the Borrower ending on ● (the "Quarter").

- I, ●, the undersigned, of the Borrower, in my capacity as an officer of the Borrower and without personal liability, do hereby certify that:
- 1. attached hereto as Exhibit "A" is a true and accurate assessment and analysis of the Project's compliance with each material category in the Annual O&M Budget;
- 2. attached hereto as Exhibit "B" is a true and accurate assessment of all material casualty losses incurred during the Quarter and on a year-to-date basis;
- 3. attached hereto as Exhibit "C" is a true and accurate assessment of all replacements of material equipment not contemplated by the Annual Maintenance Plan that have taken place during the Quarter and on a year-to-date basis; and
- 4. attached hereto as Exhibit "D" is a true and accurate assessment of all works performed during the Quarter and to date pursuant to the Annual Maintenance Plan.

Signed at \bullet , this \bullet day of \bullet , \bullet .

Name: ●

Title: ● of NSP Maritime Link Incorporated

EXHIBIT "A"

[NOTE TO DRAFT: Please provide a numerical and narrative assessment of the Project's compliance with each material category in the Annual O&M Budget during the Quarter and on a year-to-date basis, and an analysis of any variance thereof.]

EXHIBIT "B"

[NOTE TO DRAFT: Please provide a numerical and narrative assessment of the material casualty losses incurred during the Quarter and on a year-to-date basis, if any.]

EXHIBIT "C"

[NOTE TO DRAFT: Please provide a numerical and narrative assessment of all replacements of material equipment not contemplated by the Annual Maintenance Plan that have taken place during the Quarter and on a year-to-date basis, if any.]

EXHIBIT "D"

[NOTE TO DRAFT: Please provide a numerical and narrative assessment of all works performed during the Quarter and to date pursuant to the Annual Maintenance Plan.

SCHEDULE "K"

CONSTRUCTION REPORT

Date:		
Date.		

THE TORONTO-DOMINION BANK

AS COLLATERAL AGENT
TD Bank Tower
66 Wellington Street West
9th Floor
Toronto, Ontario M5K 1A2

MWH CANADA INC.

AS INDEPENDENT ENGINEER 505 Burrard Street, suite 1500 One Bentall Centre Vancouver, BC V7X 1M5

Gentlemen:

We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

This Construction Report is delivered to you pursuant to subsection 7.3.2 and Section 11.3 of the ML Credit Agreement in respect of the month ending on ● (the "**Applicable Month**").

- I, \bullet , the undersigned, \bullet of \bullet , in my capacity as an officer of the Borrower and without personal liability, do hereby certify that:
- 1. I have conducted such investigations as I have deemed necessary to provide the information set out in this report and in so doing I have verified all engineering related matters with a licensed professional engineer working on our behalf in respect of the Project;
- 2. attached hereto as Exhibit "A" is a true and accurate table detailing the Hard Costs incurred during the Applicable Month and compared as against the original Project Budget;
- 3. attached hereto as Exhibit "B" is a true and accurate analysis of the Cost to Complete as at the end of the Applicable Month;
- 4. attached hereto as Exhibit "C" is a true and accurate analysis of the Cost Variances as at the end of the Applicable Month, with a narrative explanation as to any variances from the original Project Budget;

- 5. the estimated Commissioning Date is currently ●; [Please refer to Exhibit "D" hereto for details.] [NOTE: Bracketed language to be included where the estimated Commissioning Date differs from the estimated Commissioning Date set out in the Project Schedule.]
- 6. there are no material disputes with any Material Project Participant or related claims against the Borrower, other than as set out in Exhibit "E" hereto;
- 7. attached hereto as Exhibit "F" is a true and accurate report describing the progress of the construction of the Project since the previous Construction Report and compared as against the originally established milestone in the Project Schedule;
- 8. the Project is being built substantially in all respects in accordance with the Project Plans and Good Utility Practice;
- 9. subject to Sections 9.5 and 9.14 of the ML Credit Agreement, I have no reason to believe that the Project is being built in violation of any Applicable Laws or Authorizations in effect at the time of performance of the relevant work;
- 10. subject to Sections 9.5 and 9.14 of the ML Credit Agreement, all Material Project Participants and other Persons participating or working toward the Commissioning of the Project, to the best of my Knowledge, are not in material default with respect to any of their respective obligations which would delay Commissioning beyond the Date Certain and the Borrower is not in material default in the payment of any sums due to such Persons in accordance with the terms agreed upon or in the fulfilment of any of its obligations with respect to such Persons, save and except with respect to such payments or obligations which the Borrower shall be contesting diligently and in good faith and in respect of which, in the event that such contestation should prove unsuccessful, no Lien shall be created or result upon or with respect to any ML Assets and Rights now owned or hereafter acquired by the Borrower, except for Permitted Encumbrances;
- 11. subject to Sections 9.5 and 9.14 of the ML Credit Agreement, all Authorizations which, under Applicable Law, as at the date hereof, are necessary to have been obtained in connection with the Project and the work currently being performed on the Project, have been obtained and are in full force and effect and do not contain any condition which could prevent or adversely affect the ability of the Borrower of attaining Commissioning by the Date Certain; and
- 12. attached hereto as Exhibit "G" is a true and complete copy of each of the Additional Material Project Documents entered into by the Borrower since [the previous Construction Report / the Closing Date].

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Signed at \bullet , this \bullet day of \bullet , \bullet .

REDACTED NSPML 2020 Int	erim Assessment Application NSUARB IR-3 Attachment 1 Page 164 of 319 Schedule "K" – Page 3 ML Credit Agreement

Name:		
Title:		

EXHIBIT "A"

[NOTE TO DRAFT: Please set out the Hard Costs incurred during the Applicable Month by major expense category and compared as against the original Project Budget.]

EXHIBIT "B"

[NOTE TO DRAFT: Please provide a detailed analysis of the Cost to Complete.]

EXHIBIT "C"

[NOTE TO DRAFT: Please provide a description of any Cost Variances detailing any variances from the Project Budget (with a narrative explanation of such variances).]

EXHIBIT "D"

[NOTE TO DRAFT: Please provide details regarding the variances from the estimated Commissioning Date set forth in Project Schedule (with a narrative explanation of such variances).]

EXHIBIT "E"

[NOTE TO DRAFT: Please describe any material disputes with any Material Project Participant or related claims against the Borrower].

EXHIBIT "F"

[NOTE TO DRAFT: Please provide a narrative report describing in reasonable detail the progress of the construction of the Project since the previous Construction Report and compared as against the originally established milestones in the Project Schedule.]

EXHIBIT "G"

[NOTE TO DRAFT: Please attach copies of the Additional Material Project Documents entered into by the Borrower since the previous Construction Report or the Closing Date, as the case may be, if any.]

SCHEDULE "L"

COMMISSIONING CERTIFICATE

Date:	Note 1	
Daic.	INOLULI	

TO: THE TORONTO-DOMINION BANK, as Collateral Agent

TO: MWH CANADA INC., as Independent Engineer

Gentlemen:

We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto- Dominion Bank (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").

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

This certificate is being issued to you in accordance with the provisions of subsection 7.6.1 of the ML Credit Agreement.

I, ●, the ● of the Borrower, hereby solemnly declare and certify the matters set forth in paragraphs 1 to 9 below, in my capacity as an officer of the Borrower:

A. GENERAL STATEMENTS OF THE OFFICER

- 1. This certificate is delivered to you in my capacity as an officer of the Borrower and without personal liability;
- 2. I am familiar with the Project and with all matters herein certified and have made reasonable inquiries as to such matters;
- 3. I have taken cognizance of the terms of the ML Credit Agreement and all Material Project Documents;

B. COST VARIANCES

4. With regard to any particular construction phase or component of construction and start-up of the Project, the amount by which costs in respect of such construction phase or component exceed amounts allocated thereto in the Project Budget amounts to:

CDN\$		

C. PUNCH LIST COSTS AND DEMOBILIZATION COSTS

4.	of construction and start-up of the Project, the amount by which costs in respect of such construction phase or component exceed amounts allocated thereto in the Project Budget amounts to:	CDN\$
5.	Punch List Costs amount to:	CDN\$
6.	Demobilization Costs amount to:	CDN\$

D. COMMISSIONING MATTERS

- 7. The static and dynamic commissioning inspections and tests have been achieved in accordance with the approved commissioning procedures and the Project has been constructed and mechanically completed in all material respects, in accordance with the Project Plans and Good Utility Practice, save for any Punch List Items and Demobilization List Items:
- 8. All Commissioning Tests, interconnection and reliability tests necessary to demonstrate that the Project meets the specifications and the operating objectives for the Project pursuant to the Project Plans and the Basis of Design have been successfully completed save for any Punch List Items and Demobilization List Items; and
- 9. I have no reason to believe that, assuming the proper operation and maintenance of the plant and related equipment and devices forming part of the Project, it will not be able to maintain such required specifications and operating objectives for a period of at least forty (40) years.

You will find attached all supporting documentation and information as will permit you to verify the information and calculations given and made herein.

I hereby represent and warrant that all of the information set forth herein and in all supporting documentation and information attached hereto is complete, correct and accurate in all material respects and I have no knowledge of any undisclosed fact which has or could materially affect the information set forth herein or in the supporting documentation and information attached hereto.

AND I MAKE THIS CERTIFICATE, conscientiously believing it to be true.

IN WITNESS WHEREOF, I have signed this present Commissioning Certificate in \bullet , Province of Newfoundland and Labrador, on this \bullet (\bullet th) day of \bullet , \bullet .

• NSP Maritime Link Incorporated

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1. This certificate should be dated on or about, but no later than, the Date Certain.

SCHEDULE "M"

COMMISSIONING CONFIRMATION

Date:		
Date.		

TO EACH OF THE PERSONS WHOSE NAME APPEARS IN EXHIBIT "A" HERETO

Re: The Financing of the Maritime Link – Conditions Precedent to Commissioning

We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

The Collateral Agent hereby confirms that each of the conditions precedent set forth in Section 7.6 of the ML Credit Agreement has been met or waived by the Collateral Agent in accordance with the terms of the Collateral Agency Agreement and that, accordingly, the Commissioning Date shall be ●.

Yours truly,

[INTENTIONALLY LEFT BLANK]

REDACTED NSPML 2020 Interim Assessment Application NSUARB IR-3 Attachment 1 Page 176 of 319 Schedule "M" - Page 2 ML Credit Agreement

The Toronto-Dominion Bank,				
as Collateral Agent				
Per:				
Per:				

EXHIBIT "A"

ADDRESSEES

ML FUNDING VEHICLE TRUST C/O BNY TRUST COMPANY OF CANADA

as Issuer Trustee 320 Bay Street 11th Floor

Toronto, Ontario M5H 4A6

NSP MARITIME LINK INCORPORATED

as Borrower 1223 Lower Water Street Halifax, Nova Scotia B3J 3S8

Date: Note 1

SCHEDULE "N"

DISTRIBUTION CERTIFICATE

The Toronto-Dominion Bank s Collateral Agent D Bank Tower 6 Wellington Street West th Floor Coronto, Ontario M5K 1A2
Gentlemen:
Ve refer you to the credit agreement dated February 24, 2014, between NSP Maritime Lin ncorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Coronto-Dominion Bank (the "Collateral Agent") (said agreement, as same may be amended upplemented or restated from time to time is hereinafter referred to as the "ML Creditagreement").
Unless otherwise defined herein or unless there be something in the subject or the contemponal consistent therewith, all capitalized terms and expressions used herein shall have the same neaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.
The Borrower wishes to make a Distribution in an amount of CDN\$ of the "Distribution Date"). This certificate is delivered to yoursuant to subsection 11.4 of the ML Credit Agreement.
, ●, the undersigned, the ● of the Borrower, in my capacity as an officer of the Borrower and without personal liability, do hereby certify that:
. As at the Distribution Date, the Distribution Funds will amount to CDN\$, which corresponds to the sum of the following items:
(a) cash in the Borrower Project Funding Account: CDN\$ Note 2
(b) cash in the Borrower Distribution Reserve Account: CDN\$
each of the Distribution Conditions has been met or will be met on the Distribution Date
signed at \bullet , this \bullet day of \bullet , \bullet .
Name: ●
Title: ● of NSP Maritime Link Incorporated

REDACTED NSPML 2020 Interim Assessment Application NSUARB IR-3 Attachment 1 Page 179 of 319
Schedule "N" – Page 2
ML Credit Agreement

Name: ●			

- 1. The Distribution Certificate must be delivered to the Collateral Agent no less than five (5) Business Days prior to the Distribution Date.
- 2. This amount is determined after application of all amounts in the Borrower Project Funding Account pursuant to paragraphs (a) to (i) of clause 8.1.2.2 of the ML Credit Agreement.

SCHEDULE "O-1"

FINAL FUNDING REQUEST

Date:

TO: THE TORONTO-DOMINION BANK, as Collateral Agent

TO: MWH Canada Inc., as Independent Engineer

Gentlemen:

We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

This Final Funding Request is delivered to you pursuant to subsection 7.3.1 and 7.4.1 of the ML Credit Agreement.

The financial information contained in this Final Funding Request is being provided as at $\underline{\text{Note}}$ $\underline{\textbf{1}}$, being the Effective Date of this Final Funding Request.

As at the Effective Date, the Funding Requirements are CDN\$____ and are to be funded as per the table below (see Exhibit "A" for the calculations of the Funding Requirements):

Sources of Funds for the Funding Requirements			
Application of Aggregate Borrower Project Funding Account	CDN\$		
Balances	(see Exhibit "B" for details)		
Debt Rateable Share of the Funding Requirements	CDN\$ (see Exhibit "C" for details)		
Equity Rateable Share of the Funding Requirements	CDN\$ (see Exhibit "D" for details)		

We hereby represent and warrant that, as at the Effective Date:

REDACTED NSPML 2020 Interim Assessment Application NSUARB IR-3 Attachment 1 Page 181 of 319
SCHEDULE "O-1" – PAGE 2
ML CREDIT AGREEMENT

1.	a reconciliation of amounts disbursed from the Borrower Project Funding Account to
	amounts set forth and approved in any Funding Request provided during the previous
	month is provided in Exhibit "E" hereto;

- 2. Soft Costs incurred as at the Effective Date amount to CDN\$_____ and are calculated and described in Exhibit "A" hereto; and
- 3. no ML Event of Default has occurred and is continuing.

You will find attached all supporting documentation and information as will permit you to verify the statements, information and calculations contained herein. All of the information set forth herein and in all supporting documentation and information attached hereto is complete, correct and accurate in all material respects and we have no knowledge of any undisclosed fact which has or could materially affect the information set forth herein or in the supporting documentation and information attached hereto.

uly,

NSP MARITIME LINK INCORPORATED

Per:	

Notes:

1. Specify the Effective Date, which date must be the day immediately preceding the date of this Final Funding Request.

EXHIBIT "A"

Α.	Calculation of Funding Requirements		
1.	the Final Eligible Project Costs, plus any applicable Sales Taxes, amount to (see Section B below for details):	CDN\$_	
2.	the Minimum DSRA Requirement is	CDN\$_	
3.	the Funding Requirements amount to:	CDN\$	Note 1
4.	the Final Funding Rateable Share of the funding of the Final Eligible Project Costs is:		Note 2 %
5.	the Final Funding Rateable Share of the funding of the Minimum DSRA Requirement is:		<u>Note 3</u> %
В.	Calculation of Final Eligible Project Costs		
6.	the Eligible Project Costs, plus any applicable Sales Taxes, remaining unpaid as at the Effective Date of this Final Funding Request (excluding the Minimum DSRA Requirement) (see Section C below for details):	CDN\$_	
C.	Calculation of the Project Costs		
7.	Hard Costs amount to (see Section D below for details):	CDN\$_	
8.	Soft Costs amount to (see Section E below for details):	CDN\$_	
9.	all other Project Costs amount to:	CDN\$	Note 4
10.	Project Costs amount to:	CDN\$	Note 5
D.	Calculation of the Hard Costs		
11.	cost of designing, equipping, procuring, constructing, Commissioning, starting up and testing the Project:	CDN\$_	
12.	cost of acquiring any of the ML Assets and Rights:	CDN\$_	
13.	real and personal property taxes (but excluding ad valorem taxes and Sales Taxes) and insurance premiums payable with respect to the Project during the Construction Period:	CDN\$_	
14.	initial working capital requirements of the Project as set forth in the Project Budget:	CDN\$_	
15.	costs of acquiring Authorizations for the Project:	CDN\$	

16.	cost of establishing a spare parts inventory specifically for execution of the Project:	CDN\$
17.	amounts spent out of the contingency allowances set forth in the Project Budget:	CDN\$
18.	all amounts payable under Material Project Documents relating to the construction of the Project, as well as any other agreements with any other contractors supplying goods or services to the Project:	CDN\$
19.	Hard Costs amount to:	CDN\$ Note 6
E.	Calculation of the Soft Costs	
20.	interest payable on the ML Construction Loan or Additional Debt and financing-related fees and costs, in each case incurred in connection with the ML Construction Loan or Additional Debt:	CDN\$ Note 7
21.	all general and administrative costs of the Borrower attributable to the Project as well as those of the Funding Vehicle, and more particularly the payments required to be made by the Administrator under the terms of the Administration Agreement:	CDN\$
22.	all principal, interest, financing fees and related costs incurred in connection with Purchase Money Obligations and Capital Leases, in each case incurred in connection with the Project:	CDN\$
23.	cost of funding the DSRA with the then applicable Minimum DSRA Requirement, by the Commissioning Date:	CDN\$
24.	Soft Costs amount to:	CDN\$ Note 8
		

- 1. This amount is equal to the sum of lines 1 and 2 of this Exhibit.
- 2. The Final Funding Rateable Share of the funding of the Final Eligible Project Costs is determined by dividing line 1 of this Exhibit with line 3 of this Exhibit.
- 3. The Final Funding Rateable Share of the funding of the Minimum DSRA Requirement is determined by dividing line 2 of this Exhibit with line 3 of this Exhibit.

- 4. This amount includes all other costs, fees and expenses relating to the development, construction and closing of financing of the Project, including the capital costs of any structures, and all financial, legal and consulting fees, costs and expenses, including any bonus payable to any Material Project Participant under any Material Project Document and the fees, costs and expenses forming part of the Various Agent Costs and Expenses, the Canada Project Costs and Expenses, the Funding Vehicle Project Costs and Expenses and the Intermediary Trust Project Costs and Expenses, all as described in the Project Budget, whether such Project Costs are incurred by Emera prior to the Closing Date or by the Borrower at any time.
- 5. This amount is equal to the sum of lines 7 to 9 of this Exhibit, inclusively.
- 6. This amount is equal to the sum of lines 11 to 18 of this Exhibit, inclusively.
- 7. If the amortization of the ML Construction Loan has commenced prior to the Commissioning Date, any Sinking Fund Payment that needs to be made should also be included in this amount.
- 8. This amount is equal to the sum of lines 20 to 23 of this Exhibit, inclusively.

EXHIBIT "B"

A.	Calculation of Aggregate Borrower Project Funding
	Account Balances

1. the balance on deposit in the Borrower Project Funding Account, following the application of paragraphs 8.1.1.2, 8.1.1.3 and 8.1.1.4 of the ML Credit Agreement including, for greater certainty, any ML Income on Account Balances deriving therefrom:

CDN\$

2. the balance on deposit in the Borrower Disbursement Account, following the application of paragraph 8.4.1.2 of the ML Credit Agreement including, for greater certainty, any ML Income on Account Balances deriving therefrom:

CDN\$

3. the Aggregate Borrower Project Funding Account Balances is: CDN\$ Note 1

- В. Portion of the Aggregate Borrower Project Funding **Account Balances used to fund the Funding Requirements**
- 4. the Funding Requirements are:

CDN\$ Note 2

the portion of the Aggregate Borrower Project Funding Account CDN\$ Note 3 5. Balances used to fund the Funding Requirements is:

- C. Application of Aggregate Borrower Project Funding Account Balances to the funding of the Final Eligible Project Costs and the Minimum DSRA Requirement
- 6. the portion of the Aggregate Borrower Project Funding Account CDN\$ Note 4 Balances attributable to the funding of the Final Eligible Project Costs
- 7. the portion of the Aggregate Borrower Project Funding Account CDN\$ Note 5 Balances attributable to the funding of the Minimum DSRA Requirement is:

- 1. This amount is equal to the sum of lines 1 and 2 of this Exhibit.
- 2. Insert the amount in line 3 of Exhibit "A".
- 3. This amount corresponds to the lesser of line 3 and line 4 of this Exhibit.
- 4. This amount is determined by multiplying line 4 of Exhibit "A" with line 5 of this Exhibit.

5. This amount is determined by multiplying line 5 of Exhibit "A" with line 5 of this Exhibit.

EXHIBIT "C"

Α. The Debt Rateable Share of the Funding Requirements CDN\$ 1. the Funding Requirements are: Note 1 2. the portion of the Aggregate Borrower Project Funding Account CDN\$ Note 2 Balances used to fund the Funding Requirements is: 3. the portion of the Funding Requirements to which the Debt CDN\$ Note 3 Rateable Share applies is: 4. the Additional Debt proposed to be incurred to fund the CDN\$ Note 4 Funding Requirements is: 5. the aggregate of the Working Capital Reserve Account Balance to be used to fund the Final Funding Request pursuant to paragraph 8.10.3 of the ML Credit Agreement: CDN\$ 6. the Debt Rateable Share is: Note 5% 7. the Debt Rateable Share of the Funding Requirements is: CDN\$ Note 6 B. Application of the Debt Rateable Share of the Funding Requirements to the funding of the Final Eligible Project **Costs and the Minimum DSRA Requirement** 8. the funding of the Final Eligible Project Costs amounts to: CDN\$ Note 7 9. the funding of the Minimum DSRA Requirement amounts to: CDN\$ Note 8 C. **Advance required under the ML Construction Facility** the aggregate amount to be Advanced under the ML CDN\$ 10. Note 9 Construction Facility is:

- 1. Insert the amount in line 3 of Exhibit "A".
- 2. Insert the amount in line 5 of Exhibit "B".
- 3. This amount is determined by subtracting line 2 of this Exhibit from line 1 of this Exhibit.
- 4. Insert the amount of Additional Debt proposed to be incurred to fund the Funding Requirements.
- 5. (i) Where the funding of the Funding Requirements is made prior to the date on which DER first becomes equal to 70%, the Debt Rateable Share corresponds to 100%.

(ii) Where the funding of the Funding Requirements is made following the date on which DER first becomes equal to 70% but prior to the ML Construction Facility being fully disbursed, the Debt Rateable Share corresponds to the following:

the lesser of (i) 100% and (ii) 70% plus the difference, if any, between 70% and the
$$DER^1$$

unless, as a result of this calculation, the Borrower is unable to fund such Debt Rateable Share of the Funding Requirements in its entirety by reason of (a) the Available ML Construction Facility being exhausted further to the Advance requested to fund such Debt Rateable Share of the Funding Requirements and (b) the Borrower not proposing to incur Additional Debt in an amount sufficient to fund the remaining portion of the Debt Rateable Share of the Funding Requirements, in which case the Debt Rateable Share shall correspond to the following:

*R =
$$\begin{cases} \text{the lesser of (i) 100\% and (ii) 70\% plus} \\ \text{the difference, if any, between 70\% and} \\ \text{the DER}^1 \end{cases}$$
 x line 3 of this Exhibit

- 6. This amount is determined by multiplying line 6 of this Exhibit with line 3 of this Exhibit.
- 7. This amount is determined by multiplying line 4 of Exhibit "A" with line 7 of this Exhibit.
- 8. This amount is determined by multiplying line 5 of Exhibit "A" with line 7 of this Exhibit.
- 9. This amount is determined by subtracting line 4 of this Exhibit and line 5 of this Exhibit from line 7 of this Exhibit. Where this calculation results in the aggregate amount to be Advanced under the ML Construction Facility being greater than the Available ML Construction Facility, the amount to be inserted in line 10 of this Exhibit shall be equal to the Available ML Construction Facility.

The Advance made under the ML Construction Facility or the Additional Debt incurred in connection with the funding of the Funding Requirements shall not be taken into account when calculating the DER.

EXHIBIT "D"

Α. The Equity Rateable Share of the Funding Requirements CDN\$ 1. the Funding Requirements are: Note 1 2. the portion of the Aggregate Borrower Project Funding Account CDN\$ Note 2 Balances used to fund the Funding Requirements is: the portion of the Funding Requirements to which the Equity 3. CDN\$ Note 3 Rateable Share applies is: 4. the Equity Rateable Share is: **Note 4%** 5. the Equity Rateable Share of the Funding Requirements is: CDN\$ Note 5 6. the amount of the equity Investment in the Borrower made in accordance with paragraph 7.7.1.2 of the ML Credit Agreement: CDN\$ B. Application of the Equity Rateable Share of the Funding Requirements to the funding of the Final Eligible Project **Costs and the Minimum DSRA Requirement** 7. the funding of the Final Eligible Project Costs amounts to: CDN\$ Note 6 8. the funding of the Minimum DSRA Requirement amounts to: CDN\$ Note 7 C. **Base Equity Contribution Required** 9. The Base Equity Contribution required is: CDN\$ Note 8

- 1. Insert the amount in line 3 of Exhibit "A".
- 2. Insert the amount in line 5 of Exhibit "B".
- 3. This amount is determined by subtracting line 2 of this Exhibit from line 1 of this Exhibit.
- 4. The Equity Rateable Share corresponds to 100% minus line 6 of Exhibit "C".
- 5. This amount is determined by multiplying line 4 of this Exhibit with line 3 of this Exhibit.
- 6. This amount is determined by multiplying line 4 of Exhibit "A" with line 5 of this Exhibit.

- 7. This amount is determined by multiplying line 5 of Exhibit "A" with line 5 of this Exhibit.
- 8. This amount is determined by subtracting line 6 of this Exhibit from line 5 of this Exhibit.

EXHIBIT "E"

[NOTE TO DRAFT: Please provide a reconciliation of amounts disbursed from the Borrower Project Funding Account to amounts set forth and approved in any Funding Request provided during the prior month.]

Date: _____

(see Exhibit "D" for details)

SCHEDULE "O-2"

POST-COMMISSIONING FUNDING REQUEST

THE TORONTO-DOMINION BANK, as Collateral Agent

TO: MWH Canada Inc., as Independent Engineer		
Gentlemen:		
We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").		
Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.		
This Post-Commissioning Funding Request is delivered to you pursuant to subsection 7.5.1 of the ML Credit Agreement.		
The financial information contained in this Post-Commissioning Funding Request is being provided as at Note 1, being the Effective Date of this Post-Commissioning Funding Request.		
As at the Effective Date, the Funding Requirements are CDN\$ and are to be funded as per the table below (see Exhibit "A" for the calculations of the Funding Requirements):		
Sources of Funds for the Funding Requirements		
Application of Aggregate Borrower Project Funding Account Balances	CDN\$ (see Exhibit "B" for details)	
	CDN\$	
Debt Rateable Share of the Funding Requirements	(see Exhibit "C" for details)	
Fauity Rateable Share of the Funding Requirements	CDN\$	

TO:

We hereby represent and warrant that, as at the Effective Date:

- 1. the Permitted Investments made with the funds in the Borrower Project Accounts are described in Exhibit "E" hereto;
- 2. a reconciliation of amounts disbursed from the Borrower Project Funding Account to amounts set forth and approved in any Funding Request provided during the previous month is provided in Exhibit "F" hereto;
- 3. Soft Costs incurred as at the Effective Date amount to CDN\$_____ and are calculated and described in Exhibit "A" hereto; and
- 4. no ML Event of Default has occurred and is continuing.

You will find attached all supporting documentation and information as will permit you to verify the statements, information and calculations contained herein. All of the information set forth herein and in all supporting documentation and information attached hereto is complete, correct and accurate in all material respects and we have no knowledge of any undisclosed fact which has or could materially affect the information set forth herein or in the supporting documentation and information attached hereto.

[INTENTIONALLY LEFT BLANK]

REDACTED NSPML 2020 Interim Assessment Application NSUARB IR-3 Attachment 1 Page 194 of 319 Schedule "O-2" - Page 3 ML Credit Agreement

Yours truly,

NSP MARITIME LINK INCORPORATED

Per:	

Notes:

1. Specify the Effective Date, which date must be the day immediately preceding the date of this Post-Commissioning Funding Request

EXHIBIT "A"

Α.	Calculation of Funding Requirements	
1.	the Funding Requirements amount to the Post-Commissioning Eligible Project Costs, plus any applicable Sales Taxes, as at the Effective Date (see Section B below for details):	CDN\$
В.	Calculation of Post-Commissioning Eligible Project Costs	
2.	the aggregate amount required by the Borrower to pay for Project Costs, plus any applicable Sales Taxes, incurred to and invoiced by (or expected to be incurred to and invoiced by) the Post-Commissioning Drawdown Date to which this Post-Commissioning Funding Request relates is (see Section C below for details of Project Costs):	CDN\$
C.	Calculation of the Project Costs	
3.	Hard Costs amount to:	CDN\$
4.	Soft Costs amount to:	CDN\$
5.	all other Project Costs amount to:	CDN\$ Note 1
6.	Project Costs amount to:	CDN\$ Note 2
D.	Calculation of the Hard Costs	
7.	cost of designing, equipping, procuring, constructing, Commissioning, starting up and testing the Project:	CDN\$
8.	cost of acquiring any of the ML Assets and Rights:	CDN\$
9.	real and personal property taxes (but excluding ad valorem taxes and Sales Taxes) and insurance premiums payable with respect to the Project during the Construction Period:	CDN\$
10.	initial working capital requirements of the Project as set forth in the Project Budget:	CDN\$
11.	costs of acquiring Authorizations for the Project:	CDN\$
12.	cost of establishing a spare parts inventory specifically for execution of the Project:	CDN\$_

13.	amounts spent out of the contingency allowances set forth in the Project Budget:	CDN\$
14.	all amounts payable under Material Project Documents relating to the construction of the Project, as well as any other agreements with any other contractors supplying	
	goods or services to the Project:	CDN\$
15.	cost of funding the Punch List Costs:	CDN\$
16.	cost of funding the Demobilization Costs:	CDN\$
17.	Hard Costs amount to:	CDN\$ Note 3
E.	Calculation of the Soft Costs	
18.	interest payable on the ML Construction Loan or Additional Debt and financing-related fees and costs, in each case incurred in connection with the ML Construction	
	Loan or Additional Debt:	CDN\$
19.	all general and administrative costs of the Borrower attributable to the Project as well as those of the Funding Vehicle, and more particularly the payments required to be made by the Administrator under the terms of the	
	Administration Agreement:	CDN\$
20.	all principal, interest, financing fees and related costs incurred in connection with Purchase Money Obligations and Capital Leases, in each case incurred in connection	
	with the Project:	CDN\$
21.	any Sinking Fund Payment required to be made:	CDN\$
22.	cost of funding the DSRA with the then applicable Minimum DSRA Requirement, by the Commissioning Date:	CDN\$
22		· <u></u>
23.	Soft Costs amount to:	CDN\$ Note 4

Notes:

1. This amount includes all other costs, fees and expenses relating to the development, construction and closing of financing of the Project, including the capital costs of any structures, and all financial, legal and consulting fees, costs and expenses, including any bonus payable to any Material Project Participant under any Material Project Document and the fees, costs and expenses forming part of the Various Agent Costs and Expenses,

the Canada Project Costs and Expenses, the Funding Vehicle Project Costs and Expenses and the Intermediary Trust Project Costs and Expenses, all as described in the Project Budget, whether such Project Costs are incurred by Emera prior to the Closing Date or by the Borrower at any time.

- 2. This amount is equal to the sum of lines 3 to 5 of this Exhibit, inclusively.
- 3. This amount is equal to the sum of lines 7 to 16 of this Exhibit, inclusively.
- 4. This amount is equal to the sum of lines 18 to 22 of this Exhibit, inclusively.

EXHIBIT "B"

Calculation of Aggregate Borrower Project Funding Account Balances	
the balance on deposit in the Borrower Project Funding Account, following the application of clauses (a)-(i) of paragraph 8.1.2.2 of the ML Credit Agreement including, for greater certainty, any ML Income on Account Balances deriving therefrom:	CDN\$
the balance on deposit in the Borrower Disbursement Account, following the application of paragraph 8.4.2.1 of the ML Credit Agreement, including, for greater certainty, any ML Income on Account Balances deriving therefrom:	CDN\$
the Aggregate Borrower Project Funding Account Balances is:	CDN\$ Note 1
Application of the Aggregate Borrower Project Funding Account Balances to the funding of the Funding Requirements	
the Funding Requirements are:	CDN\$ Note 2
the portion of the Aggregate Borrower Project Funding Account Balances used to fund the Funding Requirements is:	CDN\$ Note 3
	the balance on deposit in the Borrower Project Funding Account, following the application of clauses (a)-(i) of paragraph 8.1.2.2 of the ML Credit Agreement including, for greater certainty, any ML Income on Account Balances deriving therefrom: the balance on deposit in the Borrower Disbursement Account, following the application of paragraph 8.4.2.1 of the ML Credit Agreement, including, for greater certainty, any ML Income on Account Balances deriving therefrom: the Aggregate Borrower Project Funding Account Balances is: Application of the Aggregate Borrower Project Funding Account Balances to the funding of the Funding Requirements the Funding Requirements are: the portion of the Aggregate Borrower Project Funding Account Balances used to fund the Funding Requirements

- 1. This amount is equal to the sum of lines 1 and 2 of this Exhibit.
- 2. Insert the amount in line 1 of Exhibit "A".
- 3. This amount corresponds to the lesser of line 3 and line 4 of this Exhibit.

EXHIBIT "C"

A. The Debt Rateable Share of the Funding Requirements

1. the Funding Requirements are: CDN\$ Note 1

2. the portion of the Aggregate Borrower Project Funding Account Balances used to fund the Funding Requirements is:

CDN\$ Note 2

3. the portion of the Funding Requirements to which the Debt Rateable Share applies is:

CDN\$ Note 3

4. the Additional Debt proposed to be incurred to fund the Funding Requirements is:

CDN\$ Note 4

5. the Debt Rateable Share is:

Note 5 %

6. the Debt Rateable Share of the Funding Requirements is:

CDN\$ Note 6

B. Aggregate amount to be Advanced under the ML Construction Facility

7. the aggregate amount to be Advanced under the ML Construction Facility is:

CDN\$ Note 7

Notes:

1. Insert the amount in line 1 of Exhibit "A".

- 2. Insert the amount in line 5 of Exhibit "B".
- 3. This amount is determined by subtracting line 2 of this Exhibit from line 1 of this Exhibit.
- 4. Insert the amount of Additional Debt proposed to be incurred to fund the Funding Requirements.
- 5. (i) Where the funding of the Funding Requirements is made prior to the date on which DER first becomes equal to 70%, the Debt Rateable Share corresponds to 100%.

(ii) Where the funding of the Funding Requirements is made following the date on which DER first becomes equal to 70% but prior to the ML Construction Facility being fully disbursed, the Debt Rateable Share corresponds to the following:

the lesser of (i) 100% and (ii) 70% plus the difference, if any, between 70% and the
$$DER^1$$

unless, as a result of this calculation, the Borrower is unable to fund such Debt Rateable Share of the Funding Requirements in its entirety by reason of (a) the Available ML Construction Facility being exhausted further to the Advance requested to fund such Debt Rateable Share of the Funding Requirements and (b) the Borrower not proposing to incur Additional Debt in an amount sufficient to fund the remaining portion of the Debt Rateable Share of the Funding Requirements, in which case the Debt Rateable Share shall correspond to the following:

the lesser of (i) 100% and (ii) 70% plus the difference, if any, between 70% and the
$$DER^{1}$$
 - $100 \times \frac{R^{*} - line \ 4 \ of \ this \ Exhibit - line \ 7 \ of \ this \ Exhibit}{line \ 3 \ of \ this \ Exhibit - line \ 2 \ of \ this \ Exhibit}$

*R =
$$\begin{cases} \text{the lesser of (i) 100\% and (ii) 70\% plus} \\ \text{the difference, if any, between 70\% and} \\ \text{the } DER^1 \end{cases}$$
 x line 3 of this Exhibit

- 6. This amount is determined by multiplying line 6 of this Exhibit with line 3 of this Exhibit.
- 7. This amount is determined by subtracting line 4 of this Exhibit from line 6 of this Exhibit. Where this calculation results in the aggregate amount to be Advanced under the ML Construction Facility being greater than the Available ML Construction Facility, the amount to be inserted in line 7 of this Exhibit shall be equal to the Available ML Construction Facility.

The Advance made under the ML Construction Facility or the Additional Debt incurred in connection with the funding of the Funding Requirements shall not be taken into account when calculating the DER.

EXHIBIT "D"

A.	Equity Rateable Share of the Funding Requirements	
1.	the Funding Requirements are:	CDN\$ Note 1
2.	the portion of the Aggregate Borrower Project Funding Account Balances used to fund the Funding Requirements is:	CDN\$ Note 2
3.	the portion of the Funding Requirements to which the Equity Rateable Share applies is:	CDN\$_Note 3
4.	the Equity Rateable Share is:	<u>Note 4</u> %
5.	the Equity Rateable Share of the Funding Requirements is:	CDN\$ Note 5
6.	the amount of the equity Investment in the Borrower made in accordance with paragraph 7.7.1.2 of the ML Credit Agreement:	CDN\$
В.	Base Equity Contribution Required	
7.	The Base Equity Contribution required is:	CDN\$ Note 6

- 1. Insert the amount in line 1 of Exhibit "A".
- 2. Insert the amount in line 5 of Exhibit "B".
- 3. This amount is determined by subtracting line 2 of this Exhibit from line 1 of this Exhibit.
- 4. The Equity Rateable Share corresponds to 100% minus line 6 of Exhibit "C".
- 5. This amount is determined by multiplying line 4 of this Exhibit with line 3 of this Exhibit.
- 6. This amount is determined by subtracting line 6 of this Exhibit from line 5 of this Exhibit.

EXHIBIT "E"

[NOTE TO DRAFT: Please include details regarding the Permitted Investments.]

EXHIBIT "F"

[NOTE TO DRAFT: Please provide a reconciliation of amounts disbursed from the Borrower Project Funding Account to amounts set forth and approved in any Funding Request provided during the prior month.]

SCHEDULE "P"

FUNDING REQUEST

Date:		

TO: THE TORONTO-DOMINION BANK, as Collateral Agent

TO: MWH Canada Inc., as Independent Engineer

Gentlemen:

We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

This Funding Request is delivered to you pursuant to subsection 7.3.1 of the ML Credit Agreement.

The financial information contained in this Funding Request is being provided as at Note 1, being the Effective Date of this Funding Request.

As at the Effective Date, the Funding Requirements are CDN\$_____ and are to be funded as per the table below (see Exhibit "A" for the calculations of the Funding Requirements):

Sources of Funds for the Funding Requirements		
Application of Aggregate Borro	ower Project Funding Account	CDN\$
Balances		(see Exhibit "B" for details)
Debt Rateable Share of the Fun	ding Requirements	CDN\$(see Exhibit "C" for details)
		,
Equity Rateable Share of the Fu	anding Requirements	· <u></u>
		CDN\$ (see Exhibit "C" for details) CDN\$ (see Exhibit "D" for details)

We hereby represent and warrant that, as at the Effective Date:

- 1. the Permitted Investments made with the funds in the Borrower Project Accounts are described in Exhibit "E" hereto;
- 2. a reconciliation of amounts disbursed from the Borrower Project Funding Account to amounts set forth and approved in any Funding Request provided during the previous month is provided in Exhibit "F" hereto;
- 3. Soft Costs incurred as at the Effective Date amount to CDN\$_____ and are calculated and described in Exhibit "A" hereto; and
- 4. no ML Event of Default has occurred and is continuing.

You will find attached all supporting documentation and information as will permit you to verify the statements, information and calculations contained herein. All of the information set forth herein and in all supporting documentation and information attached hereto is complete, correct and accurate in all material respects and we have no knowledge of any undisclosed fact which has or could materially affect the information set forth herein or in the supporting documentation and information attached hereto.

[INTENTIONALLY LEFT BLANK]

REDACTED NSPML 2020 Interim Assessment Application NSUARB IR-3 Attachment 1 Page 206 of 319 Schedule "P" - Page 3 ML Credit Agreement

Yours truly,

NSP MARITIME LINK INCORPORATED

Per:	

Notes:

1. Specify the Effective Date, which date must be the day immediately preceding the date of this Funding Request

EXHIBIT "A"

A.	Calculation of Funding Requirements	
1.	the Funding Requirements amount to the Eligible Project Costs, plus any applicable Sales Taxes, as at the Effective Date (see Section B below for details):	CDN\$
В.	Calculation of Eligible Project Costs	
2.	the aggregate amount required by the Borrower to pay for Project Costs, plus any applicable Sales Taxes, incurred to and invoiced by (or expected to be incurred to and invoiced by) the ML Drawdown Date to which this Funding Request relates is (see Section C below for details of Project Costs):	CDN\$
C.	Calculation of the Project Costs	
3.	Hard Costs amount to (see Section D below for details):	CDN\$
4.	Soft Costs amount to (see Section E below for details):	CDN\$
5.	all other Project Costs amount to:	CDN\$ Note 1
6.	Project Costs amount to:	CDN\$ Note 2
D.	Calculation of the Hard Costs	
7.	cost of designing, equipping, procuring, constructing, Commissioning, starting up and testing the Project:	CDN\$
8.	cost of acquiring any of the ML Assets and Rights:	CDN\$
9.	real and personal property taxes (but excluding ad valorem taxes and Sales Taxes) and insurance premiums payable with respect to the Project during the Construction Period:	CDN\$
10.	initial working capital requirements of the Project as set forth in the Project Budget:	CDN\$
11.	costs of acquiring Authorizations for the Project:	CDN\$
12.	cost of establishing a spare parts inventory specifically for execution of the Project:	CDN\$
13.	amounts spent out of the contingency allowances set forth in the Project Budget:	CDN\$

14.	relating to the construction of the Project, as well as any other agreements with any other contractors supplying goods or services to the Project:	CDN\$
15.	Hard Costs amount to:	CDN\$ Note 3
E.	Calculation of the Soft Costs	
16.	interest payable on the ML Construction Loan or Additional Debt and financing-related fees and costs, in each case incurred in connection with the ML Construction Loan or Additional Debt:	CDN\$
17.	all general and administrative costs of the Borrower attributable to the Project as well as those of the Funding Vehicle, and more particularly the payments required to be made by the Administrator under the terms of the Administration Agreement:	CDN\$
18.	all principal, interest, financing fees and related costs incurred in connection with Purchase Money Obligations and Capital Leases, in each case incurred in connection with the Project:	CDN\$
19.	cost of funding the DSRA with the then applicable Minimum DSRA Requirement, by the Commissioning Date:	CDN\$
20.	Soft Costs amount to:	CDN\$ Note 4
F.	Calculation of Working Capital Reserve Funding	
21.	Working Capital Reserve Account Balance as at the Effective Date:	CDN\$
22.	the portion of the Working Capital Reserve Account Balance used to fund the Funding Requirements is:	CDN\$
23.	the maximum funding of the Working Capital Reserve Account available pursuant to this Funding Request:	CDN\$ Note 5
24.	the aggregate amount to be funded to the Working Capital Reserve Account pursuant to this Funding Request:	CDN\$ Note 6

LEGAL_1:29598199.9

- 1. This amount includes all other costs, fees and expenses relating to the development, construction and closing of financing of the Project, including the capital costs of any structures, and all financial, legal and consulting fees, costs and expenses, including any bonus payable to any Material Project Participant under any Material Project Document and the fees, costs and expenses forming part of the Various Agent Costs and Expenses, the Canada Project Costs and Expenses, the Funding Vehicle Project Costs and Expenses and the Intermediary Trust Project Costs and Expenses, all as described in the Project Budget, whether such Project Costs are incurred by Emera prior to the Closing Date or by the Borrower at any time.
- 2. This amount is equal to the sum of lines 3 to 5 of this Exhibit, inclusively.
- 3. This amount is equal to the sum of lines 7 to 14 of this Exhibit, inclusively.
- 4. This amount is equal to the sum of lines 16 to 19 of this Exhibit, inclusively.
- 5. This amount is determined by subtracting line 21 of this Exhibit from the sum of the Maximum WCR Amount and line 22 of this Exhibit.
- 6. This amount cannot exceed the amount in line 23 of this Exhibit.

EXHIBIT "B"

Α.	Account Balances	
1.	the balance on deposit in the Borrower Project Funding Account, following the application of paragraphs 8.1.1.2, 8.1.1.3 and 8.1.1.4 of the ML Credit Agreement including, for greater certainty, any ML Income on Account Balances deriving therefrom:	CDN\$
2.	the balance on deposit in the Borrower Disbursement Account, following the application of paragraph 8.4.1.2 of the ML Credit Agreement, including, for greater certainty, any ML Income on Account Balances deriving therefrom:	CDN\$
3.	the Aggregate Borrower Project Funding Account Balances is:	CDN\$ Note 1
В.	Application of the Aggregate Borrower Project Funding Account Balances to the funding of the Funding Requirements	
4.	the Funding Requirements are:	CDN\$ Note 2
5.	the portion of the Aggregate Borrower Project Funding Account Balances used to fund the Funding Requirements is:	CDN\$ Note 3

- 1. This amount is equal to the sum of lines 1 and 2 of this Exhibit.
- 2. Insert the amount in line 1 of Exhibit "A".
- 3. This amount corresponds to the lesser of line 3 and line 4 of this Exhibit.

EXHIBIT "C"

The Debt Rateable Share of the Funding Requirements

1. the Funding Requirements are: CDN\$ Note 1

2. the portion of the Aggregate Borrower Project Funding Account Balances used to fund the Funding Requirements is:

CDN\$ Note 2

the portion of the Funding Requirements to which the Debt 3. Rateable Share applies is:

CDN\$ Note 3

the Additional Debt proposed to be incurred to fund the 4. Funding Requirements is:

CDN\$ Note 4

the portion of the Working Capital Reserve Account 5. Balance used to fund the Funding Requirements:

CDN\$ Note 5

6. the Debt Rateable Share is:

Note 6 %

7. the Debt Rateable Share of the Funding Requirements is: CDN\$ Note 7

В. Aggregate amount to be Advanced under the ML **Construction Facility**

8. the aggregate amount to be Advanced under the ML Construction Facility is:

CDN\$ Note 8

Notes:

Α.

- Insert the amount in line 1 of Exhibit "A". 1.
- 2. Insert the amount in line 5 of Exhibit "B".
- 3. This amount is determined by subtracting line 2 of this Exhibit from line 1 of this Exhibit.
- 4. Insert the amount of Additional Debt proposed to be incurred to fund the Funding Requirements.
- 5. Insert the amount in line 22 of Exhibit "A".
- 6. (i) Where the funding of the Funding Requirements is made prior to the date on which DER first becomes equal to 70%, the Debt Rateable Share corresponds to 100%.

(ii) Where the funding of the Funding Requirements is made following the date on which DER first becomes equal to 70% but prior to the ML Construction Facility being fully disbursed, the Debt Rateable Share corresponds to the following:

the lesser of (i) 100% and (ii) 70% plus the difference, if any, between 70% and the
$$DER^1$$

unless, as a result of this calculation, the Borrower is unable to fund such Debt Rateable Share of the Funding Requirements in its entirety by reason of (a) the Available ML Construction Facility being exhausted further to the Advance requested to fund such Debt Rateable Share of the Funding Requirements and (b) the Borrower not proposing to incur Additional Debt in an amount sufficient to fund the remaining portion of the Debt Rateable Share of the Funding Requirements, in which case the Debt Rateable Share shall correspond to the following:

the lesser of (i) 100% and (ii) 70% plus the difference, if any, between 70% and the
$$DER^{1}$$
 - 100 x
$$\begin{bmatrix} R^* - line\ 4 \ of\ this\ Exhibit\ - line\ 8 \ of\ this\ Exhibit\ - line\ 2 \ of\ this\ Exhibit\ - line\ 5 \ of\ this\ Exhibit\ \end{bmatrix}$$
*R =
$$\begin{bmatrix} the\ lesser\ of\ (i)\ 100\%\ and\ (ii)\ 70\%\ plus\ the\ difference,\ if\ any,\ between\ 70\%\ and\ the\ DER^{1} \end{bmatrix}$$
* line 3 of this Exhibit x in x

*R =
$$\begin{cases} the\ lesser\ of\ (i)\ 100\%\ and\ (ii)\ 70\%\ plus \\ the\ difference,\ if\ any,\ between\ 70\%\ and \\ the\ DER^1 \end{cases}$$
 x line 3 of this Exhibit

- This amount is determined by multiplying line 6 of this Exhibit with line 3 of this 7. Exhibit.
- 8. This amount is determined by subtracting line 4 of this Exhibit and line 5 of this Exhibit from line 7 of this Exhibit. Where this calculation results in the aggregate amount to be Advanced under the ML Construction Facility being greater than the Available ML Construction Facility, the amount to be inserted in line 8 of this Exhibit shall be equal to the Available ML Construction Facility.

The Advance made under the ML Construction Facility or the Additional Debt incurred in connection with the funding of the Funding Requirements shall not be taken into account when calculating the DER.

EXHIBIT "D"

A. Equity Rateable Share of the Funding Requirements

1. the Funding Requirements are: CDN\$ Note 1

2. the portion of the Aggregate Borrower Project Funding Account Balances used to fund the Funding Requirements is:

CDN\$ Note 2

3. the portion of the Funding Requirements to which the Equity Rateable Share applies is:

CDN\$ Note 3

4. the Equity Rateable Share is:

Note 4 %

5. the Equity Rateable Share of the Funding Requirements is:

CDN\$ Note 5

6. the amount of the equity Investment in the Borrower made in accordance with paragraph 7.7.1.2 of the ML Credit Agreement:

CDN\$

B. Base Equity Contribution Required

7. The Base Equity Contribution required is:

CDN\$ Note 6

Notes:

- 1. Insert the amount in line 1 of Exhibit "A".
- 2. Insert the amount in line 5 of Exhibit "B".
- 3. This amount is determined by subtracting line 2 of this Exhibit from line 1 of this Exhibit.
- 4. The Equity Rateable Share corresponds to 100% minus line 6 of Exhibit "C".
- 5. This amount is determined by multiplying line 4 of this Exhibit with line 3 of this Exhibit.
- 6. This amount is determined by subtracting line 6 of this Exhibit from line 5 of this Exhibit.

EXHIBIT "E"

[NOTE TO DRAFT: Please include details regarding the Permitted Investments.]

EXHIBIT "F"

[NOTE TO DRAFT: Please provide a reconciliation of amounts disbursed from the Borrower Project Funding Account to amounts set forth and approved in any Funding Request provided during the previous month.]

SCHEDULE "Q"

INDEPENDENT ENGINEER'S CONFIRMATION

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:

the Construction Report dated ______ (the "Construction

	Report), and
(b)	the Borrower's funding request dated (the "Funding Request").
assumption the Request is truthe following	of the foregoing limited review procedures and on the understanding and the factual information contained in the Construction Report and Funding e, correct and complete in all material respects, the Independent Engineer makes statements in favour of the Collateral Agent and to the best of its knowledge 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:
	[]
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 7.3/7.5, as applicable, with the following exceptions:
	[]

(a)

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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 [\$] with the following exceptions:
	[]]
Agent, the I	Confirmation Certificate is solely for the information and assistance of the Collateral Lender and Canada in connection with the Funding Request and shall not be used, relied upon for any other purpose or by any other party.
Dated:	
MW	H CANADA, INC.
By: _	
Title	:

SCHEDULE "R"

ML COMPLIANCE CERTIFICATE

The Toronto-Dominion Bank

as Collateral Agent TD Bank Tower 66 Wellington Street West 9th Floor Toronto, Ontario M5K 1A2

Gentlemen:

We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

This certificate is delivered to you pursuant to subsection 11.1.3 of the ML Credit Agreement.

- I, ●, the of the Borrower, in my capacity as an officer of the Borrower and without personal liability, do hereby certify that:
- 1. I have taken cognizance of the ML Credit Agreement and each of the other ML Project Finance Documents, and all of the terms, representations and warranties, covenants and conditions of the ML Credit Agreement and each of the other ML Project Finance Documents to be performed or complied with by the Borrower at or prior to the date thereof have been performed or complied with;
- 2. I have taken cognizance and reviewed the transactions, operations and status of business of the Borrower, since the [last issuance of a compliance certificate under the ML Credit Agreement / Closing Date] and all conditions and requirements of the ML Project Finance Agreement and of the other ML Project Finance Documents and of all other deeds or agreements governing the borrowings of the Borrower, have been accomplished and satisfied and I do not know of the existence, as of the date hereof, of a condition or of any fact whatsoever, constituting a ML Event of Default that is continuing. [If such condition exists or has existed during the period covered by the certificate, then the undersigned shall, in Exhibit "A" attached hereto, specify its nature and duration and describe the measures taken or intended to be taken to remedy the ML Event of Default]:

3.	represe true ar	agent in writing, the Agreement are still e (except in the case orce and effect as if									
4.	The information and the Financial Statements attached hereto for the fiscal [quarter/year] ended ● (the "Quarter" or the "Year") are complete and correct in all material respects and present fairly, in accordance with GAAP, the unconsolidated or consolidated, as the case may be, financial position of the Borrower as at the end of such Quarter, subject only to normal year-end auditing adjustments, or as at the end of such Year, as the case may be;										
5.	preced	ling the	, 20, being the last day of the [Quarter/ordate of this certificate, the Retrospective DSCR, calculated as followers and is calculated as followers.	culated on a rolling							
	(i)	most	ease Cash Flow of the Borrower for the period of the recently completed twelve (12) calendar months (a) + line (b) – line (c)):	CDN\$							
		(a)	ML Project Revenues	CDN\$							
		(b)	Liquidity Reserves	CDN\$							
		(c)	Cash Operating Costs	CDN\$							
	(ii)		otal Debt Service for the period of the most recently bleted twelve (12) calendar months:	CDN\$ Note 1							
	Retro	ospectiv	$\mathbf{ve} \ \mathbf{DSCR} = \underbrace{(\mathbf{i})}_{(\mathbf{i}\mathbf{i})} =$								
6.	preced	ling the	, 20, being the last day of the [Quarter/e date of this certificate, the Prospective DSCR was follows:	_							
	(i)	twelv	tase Cash Flow of the Borrower for the period of the ve (12) calendar months immediately following the of this certificate (line (a) + line (b) – line (c)):	CDN\$							
		(a)	ML Project Revenues	CDN\$							

When calculating the Retrospective DSCR prior to the completion of twelve (12) full calendar months commencing after the Commissioning Date, the completed months that commenced after such date and ended on or prior to the date of calculation are to be taken into account and the Retrospective DSCR will be calculated on an annualized basis with such months.

REDACTED NSPML 2020 Interim Assessment Application NSUARB IR-3 Attachment 1 Page 220 of 319 Schedule "R" - Page 3 ML Credit Agreement

		(b)	Liquidity Reserves	CDN\$
		(c)	Cash Operating Costs	CDN\$
	(ii)	the T	Total Debt Service for such period:	CDN\$ Note 1
	Pros	pective	$\mathbf{DSCR} = \underbrace{(\mathbf{i})}_{(\mathbf{i}\mathbf{i})} =$	
Notes	•			
1.	there s	shall be	riod includes the maturity of any tranche of the lexcluded from the calculation of Total Debt Sets the case may be, paid on the applicable FV Botal	rvice the principal amount
Signed	d at ●, t	his ● d	lay of $ullet$, $ullet$.	
Name				
i itie:	■ 01 INS	or Mari	itime Link Incorporated	

EXHIBIT "A"

CONDITIONS CONSTITUTING A ML EVENT OF DEFAULT

[NOTE TO DRAFT: Delete if not applicable.]

SCHEDULE "S"

ML DRAW REQUEST

Date:	Note	1
Date.	11010	_

The Toronto-Dominion Bank

as Collateral Agent
TD Bank Tower
66 Wellington Street West
9th Floor
Toronto, Ontario M5K 1A2

Gentlemen:

We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

Pursuant to subsection 2.5 of the ML Credit Agreement, the Borrower hereby requests a ML Drawdown under the ML Construction Facility in an amount of CDN\$ Note 2 on Note 3.

For that purpose, we hereby represent and warrant that each and every one of the representations and warranties made under the ML Credit Agreement are true and correct on the date of this ML Draw Request, except to the extent that any such representation or warranty expressly relates to a particular date, in which case such representation or warranty is true and correct as at such date.

We further represent and warrant that no ML Event of Default has occurred and is continuing.

Yours truly,
NSP MARITIME LINK
INCORPORATED
D
 Per:

Notes:

1. ML Draw Request must be delivered at least five (5) Business Days prior to the ML Drawdown Date.

- 2. Insert the amount of the requested ML Drawdown. The ML Drawdown will be apportioned rateably amongst each tranche of the ML Construction Facility.
- 3. Insert proposed ML Drawdown Date.

SCHEDULE "T"

KEY SITES

Newfoundland and Labrador

Real property rights for the following facilities will be acquired by the Proponent via grant from Her Majesty the Queen in Right of Newfoundland and Labrador (the "**NL Crown**") of title in fee simple pursuant to the *Lands Act*, S.N.L. 1991, c. 36, or by expropriation of fee simple from private land owners pursuant to the *Muskrat Falls Project Land Use and Expropriation Act*, S.N.L. 2012, c. M-25 (the "**MF Act**"):

Facility	Location	Interest	Acquired from
Transition Compound,	Cape Ray, NL	Fee Simple	NL Crown
Anchor Site and land route to			
the high water mark,			
shoreline reservation, water			
lot			
Grounding Site to the high	Indian Head,	Fee Simple	Expropriation from private
water mark, shoreline	NL		land owners, NL Crown
reservation, water lot			
Converter Station	Bottom Brook,	Fee Simple	NL Crown
	NL		
Switch Yard	Granite Canal,	Fee Simple	NL Crown
	NL		

Nova Scotia

Real property rights for the following facilities will be acquired via acquisition from Nova Scotia Power Incorporated ("NSPI") of title in fee simple or by grant of a leasehold interest by the Her Majesty the Queen in Right of Nova Scotia (the "NS Crown"):

Facility	Location	Interest	Acquired from
Transition Compound and	Point Aconi,	Fee Simple	NSPI
Anchor Site	NS		
Grounding Site, water lot	Big Lorraine,	Leasehold	NS Crown
	NS		
Converter Station and	Woodbine,	Fee Simple	NSPI
Transition Compound	NS		

Other Freehold Lands

PID	Acquired from
15867120	
15621139	
15058670	
15085632	
15250665	
15833619	

SCHEDULE "U"

PROJECT BUDGET

(See attached)

PART I

HARD COSTS

Description	Budget (\$ 000's)			
AC and DC transmission	308,370			
Converters, structures, and other ancillary equipment	574,459			
Submarine and related	306,207			
Project management and other	213,964			

Subtotal: 1,403,000

Escalation and Contingency: 174,354

Total Capital Cost Estimate: \$ 1,577,354

PART II

SOFT COSTS

On the date indicated below, the Borrower has delivered this Part II of Schedule "U" and the attached

information and Agreement.	documents	to t	the	Collateral	Agent	pursuant	to	Section	10.29	of	the	ML	Credi
Executed as of				·									
						Y	You	rs truly,					
								MARIT ORPOR			K		
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SCHEDULE "V"

PROJECT SCHEDULE

Milestone Description	Date
Approval to Construct (DG3)	Feb 28, 2014
NS HVDC Transmission Line Construction Complete and Connected	Aug 10, 2015
NL HVDC Transmission Line Construction Complete and Connected	Sept 7, 2016
Granite Canal Switchyard Ready for Operation	Apr 18, 2017
Bottom Brook & Woodbine Converter Stations Ready for Operation	July 14, 2017
HVDC Submarine Cable HV Test – Substantial Completion Commissioning Complete	Aug 29, 2017
Performance Test First Commercial Power	Oct 1, 2017

Date: _____

SCHEDULE "W"

ML VOLUNTARY PREPAYMENT NOTICE

THE TORONTO-DOMINION BANK, as Collateral Agent

Gentlemen:
We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").
Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.
Pursuant to the provisions of section 2.7 of the ML Credit Agreement, we hereby notify you that on Note 1, we shall make a ML Voluntary Prepayment to the Collateral Agent, for the account of the Lender.
You will find attached hereto as Exhibit "A" an example of how the amount of the ML Voluntary Prepayment is calculated in accordance with the provisions of subsection 2.7.2 of the ML Credit Agreement.
Yours truly,
NSP MARITIME LINK INCORPORATED
Per:
Notes:
1. Specify the date at which the prepayment is made. This prepayment notice must be made at least 35 Business Days prior to the proposed ML Voluntary Prepayment Date.

TO:

The amount of the ML Voluntary Prepayment must be equal to the sum of (i) the aggregate principal amount of the ML Construction Loan to be repaid on the ML Voluntary Payment Date; (ii) accrued and unpaid (a) interest on such principal amount, and (b) ML Financing Fee, in an aggregate amount which, together, shall be equal to the aggregate amount of interest accrued on the FV Bonds which will be payable on the FV Bond Redemption Date; and (iii) the ML Make-Whole Amount applicable to such FV Bonds.

SCHEDULE "X"

FORM OF LETTER OF CREDIT

The form of the Letter of Credit will be appended following approval of the form by the Collateral Agent acting in accordance with Requisite Instructions.

SCHEDULE "Y"

FINANCIAL MODEL REQUIREMENTS

ML Model Overview Comments

Financing Structure and Inputs:

Based on the pending financing solution, potential assumptions that remain open and to be incorporated into the model are summarized below.

Pending Financing Assumptions:

- Debt structure (bullet(s) vs. amortizing)
- Effective interest rate achieved given bond pricing, financing fees/costs and, if applicable, reinvestment returns pre/post construction (sinking fund)

Capital Cost Profile:

• The model will be updated to show the link between the DG3 capital cost estimate, including forecasted timing of base capital expenditures, contingency and escalation and the amounts reflected in the model.

ML Debt Financing Solution Timeline:

- February Achieve ML Financial Close
- Late February / early March Bank meetings to review proposals (Canada included)
- March Canada and Emera Board approvals of financing structure
- March Select lead bank and begin bank documentation of transaction and rating agency pre-marketing materials
- April Targeted bond launch and settlement

SCHEDULE "Z"

SINKING FUND INVESTMENTS

Sinking Fund Composition Requirements

To mitigate risk of principal loss in the Sinking Fund Account, hold limits will be placed on broad investment buckets, individual credits and term of the Sinking Fund Account investments.

The following table outlines allowed hold limits:

	Minimum Holding`	Maximum Holding	Minimum Rating	Single Name Hold Limit
Canada and Canada- Guaranteed Bonds (includes FV Bonds)	50%	100%	Not applicable	No Limit
AAA Provinces and AAA Corporates	0%	50%	AAA	Provinces 12.5% Corporate 5%
AA Provinces	0%	25%	AA-, Aa3, AA(low)	8.5%

The term of any holdings or investment in the Sinking Fund Account must not extend beyond the date on which the Sinking Fund Account funds are required for repayment of the relevant FV Bonds. This will ensure that the sinking fund does not take on any interest rate exposure.

Sinking Fund Account holdings must be denominated in Canadian dollars.

Requirements:

- 1. No structured products will be allowed in the sinking fund (this includes covered bonds, NHA MBS, callables, extendibles, derivatives);
- 2. To be considered an acceptable security for a given bucket above, the security must have ratings at or above the minimum rating indicated from two of Moodys, S&P, or DBRS;
- 3. If a holding, other than Canada and Canada-Guaranteed Bonds (including FV Bonds), is downgraded such that it does not have two ratings that meet the minimum rating threshold (see above), the amount of the security that is beyond the maximum holdings of the bucket it qualifies for based on the downgraded rating, if any, must be sold within 90 days and any principal loss must be contributed by the Borrower or made up in future periods by the Sinking Fund Account retaining interest income equal to the principal lost;

- 4. No interest may flow out of the Sinking Fund Account unless the balance of the Sinking Fund Account, on a mark-to-market basis, is greater than the Sinking Fund Account balance as indicated in the final sinking fund payment schedule at that point in time;
- 5. Collateral Agent is to give quarterly hold reports.

Short Term Investments

Up to 100% of the holdings in the Sinking Fund Account can be invested in Schedule I banks provided that the investments (a) have a rating of "A" or higher, (b) are purchased in the six month period prior to the payment of principal on any tranche of bonds issued by the Funding Vehicle, and (c) have a term that does not exceed the date of the payment of principal referred to in clause (b).

SCHEDULE "AA"

BASIS OF DESIGN

(See attached)



Maritime Link Project

Basis of Design-Land Based Assets

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			Engineer	Engineering	Manager		
Rev.	Date	Reason	Title	Title	Title	Title	
		for Issue	Originated	Reviewed	Approved	Endorsed	

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Maritime Link Project

Basis of Design-Land Based Assets

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Authorization Page

In addition to those indicated on the cover page, the following have indicated their support of this document.

Name	Position	Signature	Date
			

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Proprietary Notice

This content of this document is confidential and under the ownership of the Emera Newfoundland and Labrador (ENL). It was prepared for the intended purpose of the planning and execution of the Maritime Link project. It will not be shared in whole or in part without the appropriate written consent of ENL.

MLP-EL-SPC-0011

REVISION HISTORY

Version	Author/Editor	Comments	Date
			:

RELATED DOCUMENTS

Document Number	. Title	Date

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SECTION 1 - INTRODUCTION

1.1 Background

The Maritime Link project was launched in 2011 following partnership discussions between Emera and Nalcor and the Provinces of Nova Scotia and Newfoundland and Labrador. The scope of the project includes the design, construction and commissioning of the Maritime Link with the appropriate Environmental, Regulatory, Aboriginal and other Stakeholders support and appropriate approvals. The objective of the project schedule is to commission the system in preparation for turnover and start up in Q4/2016.

1.2 Document Purpose

The purpose of the document is to document the Project Scope for the land based assets as part Maritime Link (ML) Project.

This document primarily reflects Phase 3 activities to document the Basis of Design to meet the requirements of Decision Gate 3 (DG3).

1.3 Scope / Requirements

The scope/requirements of this deliverable is to describe the main Land Based components of the Maritime Link Project.

1.4 Out of Scope

The following are outside the scope of this document:

- The Muskrat Falls (MF) with the Labrador Transmission Assets
- The Labrador Island Link (LIL)
- The Newfoundland System Upgrades outside of Granite Canal
- Modifications to the NSPI transmission System outside Woodbine Substation
- The upgrades to the NSPI Special Protection systems.
- The Marine based assets of the of the Maritime Link project as described in MLP-EM-RPT-0004.

1.5 Acceptance Process

This deliverable will be subject to the review and approval by only those names listed on the cover page title block and the authorization page as required.

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SECTION 2 – INITIAL BASIS OF DESIGN

The Maritime Link shall be comprised of the components described in this Section and shall be designed, engineered and constructed in accordance with the specifications set out below for a minimum of 50 year asset life.

2.1 103NL: Granite Canal Switchyard

- The Switchyard will be configured as a four breaker ring, energized at 230kV.
- A new switchyard will be constructed just southwest of the existing Granite Canal Terminal Station.
- The new switchyard will provide terminations for the existing TL 263 transmission line, the new 230kV line (T23001) to Bottom Brook, the Granite Canal Hydro Station, and a 15Mvar Shunt Reactor for voltage support.
- The installation will include all concrete foundations and galvanized steel structures to support the electrical equipment and switchgear.
- A control building will house control, protection, monitoring, and communication equipment for the new site.
- The control building will be connected to the existing Granite Canal Hydro station via control cable and communication trench.
- The station will be grounded in accordance with IEEE Standards
- This site will be built with complete protection and control redundancy and separation
- The station service will be supplied off the incoming transmission line.
- A preliminary station layout drawing can be found in Appendix 3 – Station Layouts
- A station one line can be found in Appendix 4 One Lines

2.2 T23001: HVac Overhead Transmission – Granite Canal to Bottom Brook

- A 230kV HVac overhead transmission line will be constructed to connect the Granite Canal Switch yard to Bottom Brook Switch Yard.
- The line will be built using the NLH 230kV standard H-Frame structure, with Drake (795 ACSR) conductor. See Appendix 2 – Structure drawing
- The Transmission Line will be equipped with two lightning shielding wires.

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- One of the lightning shielding wires will have fibre optic cable integrated into it to provide communications between Granite Canal and Bottom Brook.
- The line will be sufficiently grounded to achieve a footing resistance of 25 ohms. Counterpoise will be installed if required.
- The line structures will be wood pole construction with steel cross arms and cross braces. Deadends and angles will be 3 pole structures with selfsupporting steel lattice towers used for major crossings.

2.3 101NL: Bottom Brook Switchyard

- The yard will be configured as a four rung, 12 breaker, breaker and a half 230kV switchyard used to replace the existing 230kV portion of the Bottom Brook Terminal station, with the additional connections:
 - Connections for the new 230kV line from Granite
 Canal
 - Two 230kV connections for the new Bottom Brook Converter Station via rigid bus.
- The Switchyard will be situated just to the east of the existing Bottom Brook Terminal Station in a separately fenced site.
- The installation will include all concrete foundations and galvanized steel structures to support the electrical equipment and switchgear.
- A separate control building will house control, protection, and monitoring and communication equipment for the new
- This site will be connected to both the existing Bottom Brook terminal station as well as the new Bottom Brook converter station via control cable trenches.
- This site will be built with complete protection and control redundancy and separation.
- The station services will be supplied off existing transformers located in the current Bottom Brook Terminal Station.
- The station will be grounded in accordance with IEEE Standards
- A preliminary station layout drawing can be found in Appendix 3 – Station Layouts
- A station one line can be found in Appendix 4 One Lines

2.4 301NL: Bottom Brook Converter Station

- 500 MW, ±200 kV asymmetrical bi-pole, VSC Converter Station capable of operating in mono-pole mode at 250 MW continuous operations.
- Situated east of the Bottom Brook Terminal Station in a separately fenced site.
- Installation includes all concrete foundations and galvanized steel structures to support the electrical equipment and switchgear.
- The converter building will house the AC/DC converter valves
- The DC yard will have the switching capability to use the out of service pole as a metallic return for mono-pole operation.
- The station services will be supplied off existing transformers located in the current Bottom Brook Terminal Station.
- Switching, control, protection, monitoring and communication equipment installed as required.
- Integration into a special protection system that will communicate with the converter station located at Soldiers Pond as part of the LIL project.
- A preliminary station layout drawing can be found in Appendix 3 – Station Layouts
- The line route can be found in Appendix 1 Line Routing

2.5 E00502: Grounding Line – Bottom Brook to Indian Head

- A 35 km grounding line, with two current carrying conductors and one lightning shield wire, will join the Bottom Brook Converter Station to the Indian Head near shore grounding site.
- The grounding line will be built with twin Goldenrod (954 ACSR) conductor.
- The lightning shielding wire will have fibre optic cable integrated into it to provide communications between the near shore grounding site and Bottom Brook Converter Station.
- The line will be primarily Wood pole construction, with the use of steel structures at major crossings. See Appendix 2 – Structure drawing
- The grounding line will have lightning arrestors installed every 500 meters.
- The line route can be found in Appendix 1 Line Routing

2.6 901NL: Indian Head Grounding Site

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- A near shore grounding site will be located off Indian Head in St George's Bay on the west coast of Newfoundland near Stephenville Crossing.
- The grounding site will be designed with sufficient size and capacity to limit the voltage gradient from increasing beyond 1.25V/m during a mono-pole operation.
- The station services will be supplied by existing distribution lines.
- The grounding site will be designed to be capable of supporting continuous monopole ground current return (1250A).
- The line route can be found in Appendix 1 Line Routing

2.7 X20005 & X20006: HVdc Overhead Transmission – Bottom Brook to Cape Ray

- A HVdc overhead transmission line, ±200 kV, will be constructed to connect the Bottom Brook Converter Station to the Cape Ray Transition Compound.
- The transmission line will be built to carry both poles, each one being comprised of a single Bluebird (2156 ACSS) conductor.
- The transmission line will be equipped with two lightning shielding wires.
 - One of the lightning shielding wires will have fibre optic cable integrated into it to provide communications between Cape Ray and Bottom Brook.
- The line will be sufficiently grounded to achieve a footing resistance of 25 ohms with counterpoise installed if required.
- Each conductor will be able to sustain 250 MW continuously, with a combined capacity of 500MW.
- Towers are to be galvanized lattice steel, self-supported angles and deadends, and guyed tangent towers. See Appendix 2 – Structure drawing
- The line route can be found in Appendix 1 Line Routing

2.8 701NL: Cape Ray Transition Compound

- The Cape Ray transition compound will be housed in a building on a fenced site.
- The building will have provision for the underground cable entrance and other associated Primary equipment requirements.
- Installation will include the concrete foundation for the building and steel structures to support the electrical equipment and switchgear.
- A roof mounted "wall bushing" will be installed to transition to the overhead transmission line.

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- A steel lattice dead end structure will be mounted on top of the building for transmission conductor connection.
- Switching, control, protection, monitoring and communication equipment will be installed.
- The station services will be supplied by existing distribution lines
- The station will be grounded in accordance with IEEE Standards
- A station layout drawing can be found in Appendix 3 Station Layouts

2.9 701NS: Point Aconi Transition Compound

- The Point Aconi transition compound will be housed in a building on a fenced site.
- The building will have provision for the underground cable entrance and other associated Primary equipment requirements.
- Installation will include the concrete foundation for the building and steel structures to support the electrical equipment and switchgear.
- A roof mounted "wall bushing" will be installed to transition to the overhead transmission line.
- A steel lattice dead end structure will be mounted on top of the building for transmission conductor connection.
- Switching, control, protection, monitoring and communication equipment will be installed.
- The station services will be supplied by existing distribution lines.
- The station will be grounded in accordance with IEEE Standards
- A station layout drawing can be found in Appendix 3 Station Layouts

2.10 X20001 & X20002: HVdc Overhead Transmission - Point Aconi to Woodbine

- A +/- 200kV HVdc overhead transmission line will be constructed to connect the Point Aconi Transition Compound to the Woodbine Transition Compound.
- The transmission line will be built to carry both poles, each one being comprised of a single Bluebird (2156 ACSS) conductor.
- The transmission line will be equipped with two lightning shielding wires.

- One of the lightning shielding wires will have fibre optic cable integrated into it to provide communications between Point Aconi and Woodbine.
- The line will be sufficiently grounded to achieve a footing resistance of 25 ohms with counterpoise installed if required.
- Each conductor will be able to sustain 250 MW continuously, with a combined capacity of 500MW.
- Towers are to be galvanized lattice steel, self-supported angles, deadends, and tangent towers. See Appendix 2 – Structure drawing
- The line route can be found in Appendix 1 Line Routing

2.11 702NS: Woodbine Transition Compound

- This facility will be needed to facilitate connection of the DC line into the converter station at woodbine to reduce the number of overhead transmission line crossings of the DC line.
- The Woodbine transition compound will consist of an outdoor cable transition on a fenced site with provision for the underground cable entrance and other associated primary equipment. Installation will include the concrete foundations and steel structures to support the electrical equipment and switchgear.
- The overhead HVdc line will terminate on a steel line termination structure.
- Connection from this facility to nearby Converter Station will be via underground primary cable, control cable and communications cable.
- Switching, control, protection, monitoring and communication equipment shall be incorporated into nearby Converter Station.
- The station will contain a visual barrier to hide the terminators from view
- A station layout drawing can be found in Appendix 3 –
 Station Layouts

2.12 301NS: Woodbine Converter Station

- 500 MW, ±200 kV asymmetrical bi-pole, VSC Converter Station capable of operating in mono-pole mode at 250 MW continuous operations.
- The Woodbine Converter Station will be situated west of the Woodbine Substation in a separately fenced site.
- Installation will include concrete foundations and galvanized steel structures to support the electrical equipment and switchgear.
- The converter building will house the AC/DC converter valves.

- The DC yard will have the switching capability to use the out of service pole as a metallic return for mono-pole operation.
- The station services will be supplied off the transformers located at the Woodbine substation.
- Switching, control, protection, monitoring and communication equipment installed as required.
- A station layout drawing can be found in Appendix 3 –
 Station Layouts

2.13 E00501: Grounding Line - Woodbine to Big Lorraine

- A 48 km grounding line carrying two current carrying conductors and one lightning shield wire, will join the Woodbine Converter Station to the Big Lorraine near shore grounding site.
- The grounding line will be built with twin Goldenrod (954 ACSR) conductor.
- The lightning shielding wire will have fibre optic cable integrated into it to provide communications between the near shore grounding site and Woodbine Converter Station.
- The line will be primarily Wood pole construction, with the use of steel structures at major crossings.
- The grounding line will have lightning arrestors installed every 500 meters.
- The line route can be found in Appendix 1 Line Routing

2.14 901NS: Big Lorraine Grounding Site

- A near shore grounding site will be located at the mouth of Big Lorraine Harbour on the east coast of Cape Breton.
- The grounding site will be designed with sufficient size and capacity to limit the voltage gradient from increasing beyond 1.25V/m during a mono-pole operation.
- The station services will be supplied by existing distribution lines
- The grounding site will be designed to be capable of supporting continuous monopole ground current return (1250A).

2.15 101S: Woodbine Substation Expansion

- The Woodbine345kV substation will be expanded to a 4 breaker, two rung, breaker and a half scheme.
- The Woodbine 230kV substation will be expanded to a 9 breaker, three rung, breaker and a half scheme.
- The yard will be expanded to incorporate the following additional connections:

- L7012 and L7011 will be turned into the station and connect into the new 230kV bus.
- o Two 345kV connections for the new Woodbine Converter Station.
- o A new Transformer 345kV/230kV/26.4kV, GrdWye/GrdWye/Delta, 340/453.3/566.7 MVA.
- Installation will include concrete foundations and galvanized steel structures to support the electrical equipment and switchgear.
- Control, protection, monitoring and communication equipment for the new site will be installed in the existing control building.
- This site will be connected to the new Woodbine converter station via control cable trenches.
- This site will be built with protection, control and communication redundancy.
- A preliminary station layout drawing can be found in Appendix 3 – Station Layouts
- A station one line can be found in Appendix 4 One Lines

2.16 Maritime Link Telecommunication Systems

- Permanent control, teleprotection, SCADA and voice circuits will be designed to NERC equivalent standards.
- The system will be comprised of a combination of the NSPI infrastructure, NLH
 infrastructure, newly installed infrastructure and utilizing the government of
 Newfoundland fibre network that connects Newfoundland to Nova Scotia via
 underwater fibres.
- This system will be built with complete redundancy and separation (Primary and Secondary Paths)
- Primary Path
 - A fibre line of approximately 15km will be constructed along an existing right of way connecting Lingan Power Plant with GNL fibre assets on Victoria Road.
 - A fibre line of approximately 14km will be constructed adjacent to the Trans-Canada Highway connecting the GNL fibre assets near Port-aux-Basques to the Cape Ray Transition Compound.
 - o An Optical Ground Wire (OPGW) will be constructed with the HVdc and HVac transmission lines which will bring the telecommunications line into Granite Canal (302km).
 - From Granite Canal the telecommunications from the new Switch yard 103NL will connect into the existing NLH microwave communication systems at Granite Canal Hydro station, which is currently connected back to the ECC at St. John's.

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Secondary Path

- o A fibre line of approximately 8km will be constructed along Morley Road connecting Woodbine substation to GNL fibre assets on King's Road.
- o The communication link into Bottom Brook will utilize the OPGW of the grounding line in Newfoundland. The connection point for this will be the intersection of the grounding line with GNL fibre assets.
- o A fibre line less than 1 km will be constructed connecting the GNL fibre assets near Deer Lake to the Deer Lake Terminal Station.
- o A fibre line less than 4 km will be constructed connecting the GNL fibre assets near Stony Brook to the Stony Brook Terminal Station.
- o The communication path will splice into the LIL telecommunication system from Stony Brook to the ECC at St. John's.

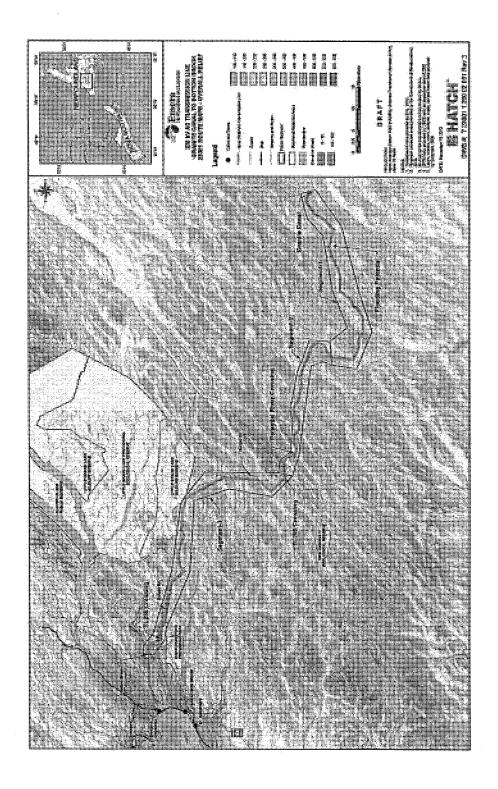
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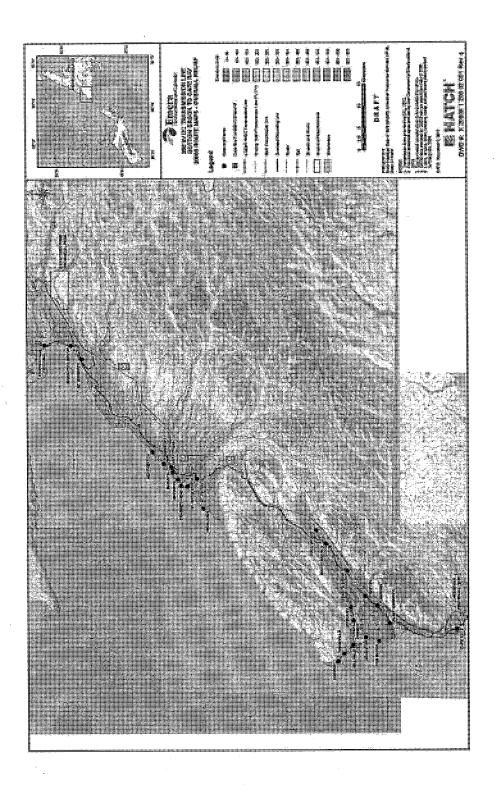
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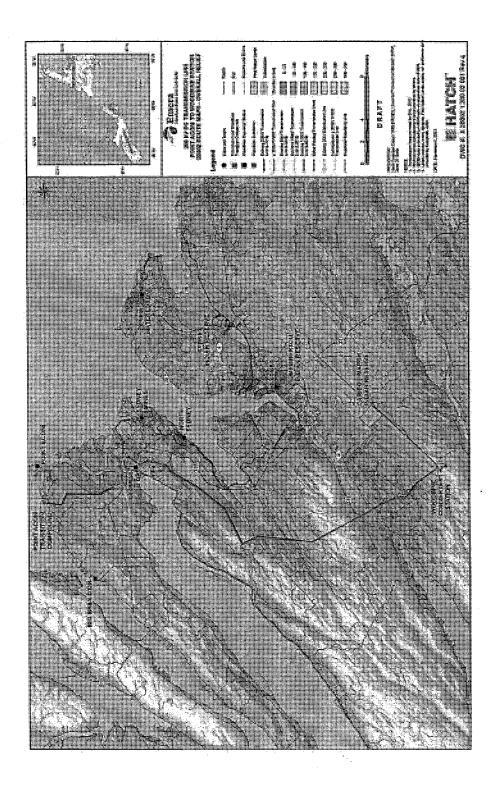
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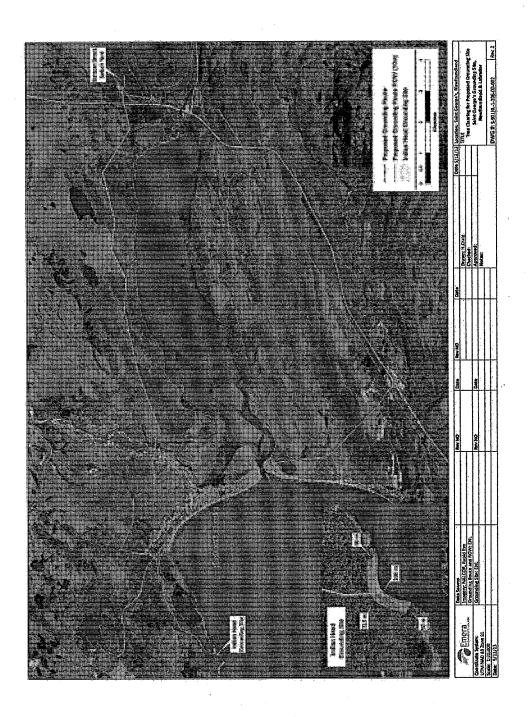
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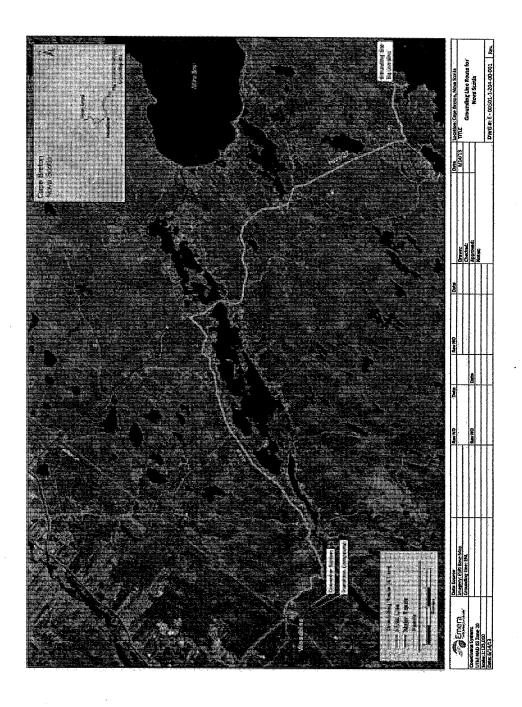
APPENDIX 1 – LINE ROUTING











APPENDIX 2 – STRUCTURE DRAWINGS

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APPENDIX 3 – STATION LAYOUTS

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APPENDIX 4 – SINGLE LINES

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Maritime Link Project Basis of Design-Marine Assets

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· .			Mohamad Saad	Marc MacDougail	Hamid Poorzargar	Gerry Brennan
		5.42	Marine Team Lead	Project Engineer	Snr. Offshore Installation Advisor	Snr. Project Manager
Rev.	Date	Reason for Issue	Originator	Reviewer	Reviewer	Approver

Proprietary Notice

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REVISION HISTORY

Revision	Originator	Comments	Date Date
1	Mohamad Saad	Issued for Review	27/5/13
2	Mohamad Saad	Issued for DG3	

REFERENCE DOCUMENTS

Reference	Document Number	Title
1	MLP-EM-RPT-0001	Constructability- Marine Assets
2	MLP-CT-PLN-0001	Project Execution Plan
3	M 00000 5 100 14 001	Shoreline Surveys for Potential HVDC Cable Landing
		Site
4	M 00000 8 100 14 001	Report on Microtunneling for Cable Landfall
5	M 00000 8 100 19 001	Cabot Strait Trenched Landfall Feasibility Study
6	M 20000 8 100 01 004	CAST Corridor Route Fishing Activity Analysis
7	M 20000 8 100 01 005	Updated Analysis of Fisheries Harvesting Activities
	E. a.	and Catch Location 1997-2010 CAST Corridor area
8	M 20000 8 100 14 001	Maritime Link Project Report on CAST Vessel Traffic
		Data Analysis
9	M 20000 8 100 14 002	Maritime Link Project Subsea Cable Corridor Survey
		Cabot Strait
10	M 20000 8 100 14 003	Interpretation of Recent Survey Data Cabot Strait
11	M 20000 8 100 19 001	Updated Ice Risk Analysis for Cabot Strait Crossing
12	M 20000 8 100 19 002	Dragging Anchor Risk for Cabot Strait Cable Crossing
13	M 20000 8 100 19 004	Burial Depth Requirements for Subsea Power Cable
14	M 20000 8 100 19 005	Assessment of Large Pockmark Region Maritime Link
		Cable Route
15	M 20000 8 100 19 006	Assessment of the Near Shore Landing Site and Route
		Selection for the Cabot Strait Cable Crossing
16	M 20000 8 100 19 007	Seismic Hazard Faults and Earthquakes Maritime
		Link Cabot Strait Region
17	M 20000 8 100 19 008	Maritime Link Project Sediment Transfer Study
18	M 60000 8 100 19 001	HDD Landfall Feasibility Study Maritime Link Cabot
		Strait

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SECTION 1 - INTRODUCTION

1.1 Background

The Maritime Link (ML) project was launched in 2011 following partnership discussions between Emera and Nalcor and the Provinces of Nova Scotia (NS) and Newfoundland (NL) and Labrador. The scope of the project includes the design, construction and commissioning of the Maritime Link with the appropriate Environmental, Regulatory, Aboriginal and other Stakeholders support and appropriate approvals. The objective of the project schedule is to commission the system in preparation for turnover and start up in 2017.

As part of these partnership discussions, ENL Maritime Link Inc. (ENL) is to execute a transmission construction project interconnecting the electrical power systems of the island of Newfoundland and Nova Scotia.

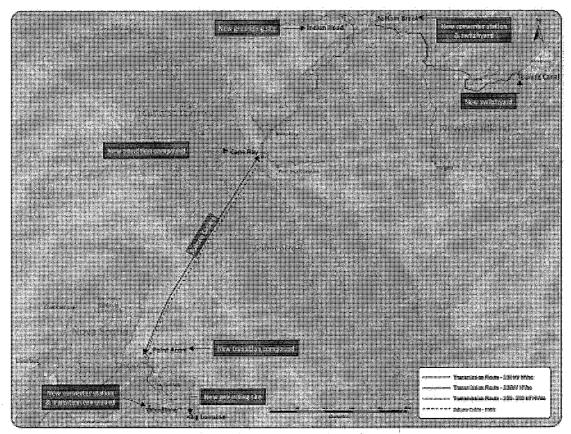


Figure 1: ML Project Overview

1.2 Document Purpose

This document reflects activities undertaken during Phase 1, Phase 2 and Phase 3 of the ML Project up to the time of the Cover Sheet signing. This document will be used to support the business case and concept selection in Phase 3 of the project in the lead up to Decision Gate 3 (DG3).

1.3 Scope

The scope of this document is to describe the basis of design of the Marine Assets of the ML Project.

The Marine scope of work consists of:

- Laying of approximately 2x2km underground HVDC cable from transition compound at Point Aconi NS to jointing bay/anchoring structure at landfall point.
- Construction of underground jointing bay/anchoring structure to house the transition joint between submarine and underground cables at landfall point in Point Aconi NS.
- Construction of approximately 2x1100 m HDD lined boreholes at Point Aconi landfall with a subsea exit at 12 m water depth.
- Pulling of subsea HVDC cable through HDD lined boreholes at Point Aconi NS up to jointing bay/anchoring structure.
- Laying of approximately 2x170 Km subsea HVDC cable across the Cabot Strait from Point Aconi NS to Cape Ray NL.
- Protection of submarine cable up to 400 m water depth by jetting and/or ploughing (potential for rock dumping as a remedial mean of protection where jetting does not achieve required burial depth).
- Construction of approximately 2x430 m HDD lined boreholes at Cape Ray NL landfall with an exit at 23 m water depth.

- Pulling of subsea HVDC cable through HDD lined boreholes at Cape Ray NL up to jointing bay/anchoring structure.
- Construction of underground jointing bay/anchoring structure to house the transition joint between submarine and underground cables at landfall point in Cape Ray NL.
- Laying of approximately 2x2km underground HVDC cable from transition compound at Cape Ray NL to jointing bay/anchoring structure.

1.4 Out of Scope

Items out of the scope of this document are:

- Muskrat Falls (MF) and Labrador Island Link (LIL) projects that, managed by Nalcor.
- ML Project Land based assets.
- ML Project schedule.
- ML Project budget.
- ML Project environmental and regulatory approval processes.
- ML Project Health, Safety, Security and Quality requirements.

SECTION 2 - MARINE ASSETS BASIS OF DESIGN

The following section provides an overview of the Basis of Design of Marine Assets of the Maritime Link Project.

2.1 Cable System Design

The Marine Cable System of the ML project consists of:

- 2 HVDC subsea cables approximately 170 Km each, rated for ± 200 KV DC, 1250 A and 500 MW (250 MW per pole).
- 2 x approximately 2 km underground HVDC land cables at each landfall point rated for ±200KV DC, 1250 A and 500 MW.
- Land to subsea cable transition joints.
- Subsea Cable armor anchors and transition bays.
- Cable terminations in transition compounds.
- Surge arrestors as required at terminations.

The HVDC cables and associated accessories will be designed for bi-pole operation, but with the ability to operate in mono pole as required by using the grounding sites, and transmit half the rated power. The HVDC cables will be Mass-Impregnated (MI) with a proven design that has a high standard of reliability in service with previous satisfactory operating performance.

Each HVDC cable will be single core design. The conductor will be sized to transmit the required current while meeting the environmental, operating and installation requirements. The conductor will be designed to withstand the mechanical loads applied to it during all phases of installation and possible future repairs.

Subsea cables will be provided with torque balanced armoring suitable to withstand all installation, protection, trenching, and environmental loading. The land cable will not

require armoring, but will be designed to accommodate the forces required for installation and protection in land trenches.

Land and subsea cables will include embedded fiber optic cable up to and including Distributed Temperature Sensing Unit (DTS) in transition compounds. The fiber optic cable will be utilized for distributed temperature sensing up to five 5 km from transition compound at Cape Ray NL and Point Aconi NS locations.

The HVDC cables will have a design life of 50 years. The cable system will be designed and manufactured such that minimal maintenance is required for the design life of the cables other than annual visual external inspections where possible.

The cable system design will be finalized during detailed engineering phase by the cable contractor with ENL's approval.

2.2 Installation Design

Each of the subsea cables will be installed within a separate HDD lined boreholes at the landfall points. Pulling the cables in separate HDD lined boreholes is intended to reduce the installation risk and limiting the pulling forces that could substantially damage the cable.

The two subsea cables will be laid separately (unbundled) on the seabed in order to increase reliability and availability of the link. This will allow transmittal of half the rated power of the system using the sound cable and the sea return provided by the grounding sites while the faulty cable is being repaired. In addition to that, laying the cables unbundled has the following advantages:

- Lowering the risk of damaging the second cable during repair of the faulty one.
- Lowering the risk of simultaneous damage to both cables by third party /external factors.
- Lowering the risk of damage to adjacent cable in the event of a cable electrical fault.

- Maximizing the length of continuous cable transported on Cable Lay Vessel (CLV) and hence reducing the number of subsea joints.
- Reducing the conductor size.

The horizontal separation between the two subsea cables will be finalized during detailed engineering phase, but it is expected to be in the range of 100m to 200m in order to reduce the probability of one incident (mostly anchors dragging) from damaging both cables simultaneously. The horizontal separation of the 2 cables will be in the range of 10m to 15m in the sand channels in the near shore area at Point Aconi NS due to the limited width of the channel; the separation distance will be finalized during detailed engineering phase in order to ensure that the 2 cables are thermally independent.

The land cables will be laid in a common trench. The separation between the two land cables will be finalized during detailed engineering phase such that there is no thermal interference between the cables, and possibility of repairing one cable while the other is still operational.

2.3 Subsea Cable Route Design

ENL has identified a subsea cable corridor from Cape Ray NL to Point Aconi NS across the Cabot Strait to lay the 2 subsea cables. The subsea corridor is approximately 170 Km long, 2Km wide and 470m at its deepest point. The subsea corridor has been optimized to ensure a risk mitigated route from Cape Ray NL to Point Aconi NS. An abandoned telephone cable TAT2 (owned by AT&T, abandoned in 1982) crosses the proposed subsea corridor centerline in two places, at approximately KP 68 and then again at KP 134. An active fiber optic cable APOCS1C (owned by Bell Alliant, active since 1992) travels parallel to, and just east of the subsea corridor. Refer to Drawing number M 20000 5 300 03 001 in Appendix A for more details.

ENL has conducted a geophysical and geotechnical survey investigations along the proposed subsea corridor across the Cabot Strait between NL and NS [Ref 9]. The purpose of the survey was to characterize bathymetric, seafloor and subseafloor conditions along the 2 km wide cable corridor between landing points at Cape Ray NL and Point Aconi NS.

Alternative landing points at Wreckhouse Brook NL and near Alder Point NS were also investigated. The scope of work for the subsea corridor survey included:

- Collection of sub-bottom profiler data at a sufficient spacing and resolution to map and document overburden thickness to a depth of 5 m or better, or to the bedrock surface, where that surface is interpreted to be less than 5 m below the seabed.
- Collection of multibeam data at a sufficient spacing and resolution to map and document seafloor topography with horizontal resolution of 2 to 5 m (dependent on water depth).
- Collection of side scan data at a sufficient spacing and resolution to map and
 document general seafloor sediment type based on qualitative assessment of
 reflectivity, and to map specific sonar contacts on the seafloor that may present
 potential hazards for trenching and cable laying operations.
- Collection of magnetometer data to locate charted cables or other magnetically detected debris within the cable corridor.
- Collection of vibrocore or gravity core samples at designated locations along the centreline of the subsea corridor for soil classification and strength assessments.
- Collection of surficial grab samples at the core locations for subsequent geochemical testing.

ENL has also conducted several additional studies along the subsea cable route:

- A detailed interpretation of seabed and subsurface features that includes a regional assessment of the area based on published government maps and reports, as well as available industry information [Ref 10].
- An assessment of the nearshore portion of the cable route for the Maritime Link off
 Point Aconi NS to evaluate the reports and imagery available, in order to micro site
 the cables coming ashore and evaluate HDD routes and seabed exit locations[Ref
 15].

- An assessment of a region of the Maritime Link cable route located on the
 Laurentian Channel flank of the Cape Breton Shelf characterized by a cluster of
 faults in the subsurface bedrock, gas—charged sediments in the overlying surficial
 material, large linear-shaped pockmarks at the seabed and venting gas in the
 overlying water column[Ref 14].
- An assessment of the seismic hazard for the area of the proposed Maritime Link cable crossing in the Cabot Strait between NS and NL, as well as the regional and local distribution of faults and earthquakes [Ref 16]. The report assessed the known and studied faults of the region summarizing their distribution and characteristics followed by an assessment of the seismic risk based on information provided by the Geological Survey of Canada, (Earthquakes Canada). The report concluded that there does not appear to be any earthquakes associated with or nearby the proposed Maritime Link Cable route; a zone of shallow bedrock faults occurs on the flank of the Laurentian Channel along the route, but there does not appear to be any activity on these faults as evidenced from the seismic maps and the overlying sediments.

The final cable route within the designated subsea corridor will be designed during detailed engineering phase by the cable contractor/installer and approved by ENL. The cable contractor will design the final route that minimizes natural hazards including natural sea bed sediment mobility, cable free span and sensitive areas pertaining to marine ecology and fisheries. A pre-installation survey may conducted by the cable contractor who will determine the requirements based on an interpretation and gap analysis of all the subsea cable route data provided by ENL.

2.4 Subsea Cable Protection Design

The subsea cables of the ML project will be protected on the seabed from external hazards by burial in order to enhance the reliability and availability of the link. The external factors that could affect the subsea cables in the Cabot Straight are:

Pack ice at both landfall points and Icebergs on the NL landfall point only.
 (Icebergs on the Newfoundland side have not been spotted in decades in

this area, however evidence of relict icebergs scours has been found on the seabed near Newfoundland).

- Fishing activities (Trawling and fixed gear).
- Dropped/Dragged anchors.

An ice risk analysis study was performed for the subsea cables across the Cabot Strait [Ref 11]. The allowable annual probability of ice contact per meter of cable was calculated using the target reliability of 10⁻³. Upward looking sonar data collected on Makkovik Bank by the Bedford Institute of Oceanography were used to define the pack ice keel distribution and a maximum ice keel cutoff of 25 m was selected for the analysis. The analysis assumes no iceberg risk on the Nova Scotia side of the Cabot Strait and a maximum keel draft cut off of 100 m for iceberg scour risk near Newfoundland landfalls. The recommended maximum design gouge depth was found to be 1.7 m for pack ice and 0.5 m for icebergs.

Two reports have been created to describe the current fishing activity in the Cabot Strait. [Ref 6 & Ref 7]. The reports categorized the species, the harvesting method along the cable route, and identified the "Fishing Hot Zones". The fishing equipment along the Cabot Strait can be divided into two categories: mobile fishing gear consisting of otter trawling and scallop dredging, and fixed fishing gear (lobster and crab traps).

In order to determine the dragged anchor criteria for the protection requirement of the Maritime Link, the vessel traffic data for the region of interest, along with vessel type and size to understand anchor size was performed [Ref 8]. A dragged anchor risk analysis was also performed based on the vessel traffic data and damage reports from communication cables in the Cabot Strait [Ref 12].

A Sediment Transfer Study to generate necessary data on dynamic features of the corridor sediments was conducted [Ref 17].

The information presented in the above referenced studies has been combined and used to develop burial depth requirements for the subsea power cable across the Cabot Strait [Ref 13]. These requirements are summarized below (burial depth requirements are based

on both the centerline profile of the 2 km corridor and the results from the subsea corridor survey [Ref9]):

- Required depth of cover for Trawl Zone (mobile gear) is 1.00 m.
- Required depth of cover for Fishing Zones (fixed gear) is 0.25 m.
- Due to potential changes in fishing methods, and trawling gear development, for water depth up to 400 m, a conservative cover of 1.00 m will be used to protect from all potential fishing activities.
- Required depth of cover for Anchor Drags is 1.5 m for water depths ranging from 25 – 75 m.
- Design Sub-gouge Depth is 0.25 m (depth between top of cable and bottom of ice keel).
- Sand Wave Amplitude is 2.0 m. The unpredictable sand movement can leave the cable exposed, creating undesirable free spans or burying the cable much deeper than expected affecting its thermal.
- 1,000 year pack ice gouge depth is 1.7 m.
- Approximately 430 m of HDD lined boreholes at Newfoundland landfall point will protect the cable up to approximately 22 m water depth.
- Approximately 1100 m of HDD lined boreholes at Nova Scotia landfall point will protect the cable up to approximately 12 m water depth.

Table1 below summarizes the length of cable for the recommended cover depth.

Depth of Burial to Top of Cable (m)	Length of recommended Cover Depth (Km)		
0	57.96		
1	89.82		
1.5	7.01		
1.95	2.78		
2	1.44		
2.5	4.26		
2.95	0.25		

Table 1: Trenching Depths to Top of Cable

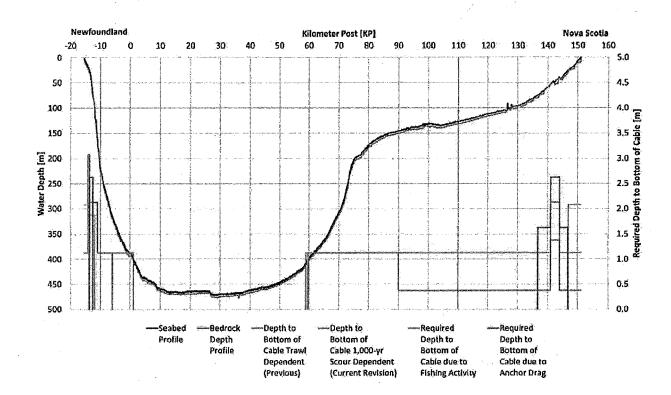


Figure 2 below is a plot of the identified trenching drivers along the cable route.

Figure 2: Trenching Drivers along Cable Route

2.5 Landfall Design

ENL considered several landfall locations in both provinces and conducted corresponding land surveys [Ref 3] and offshore surveys [Ref 9]. Cape Ray in Newfoundland and Point Aconi in Nova Scotia have been chosen as locations for building the landfall assets.

ENL also considered several options and conducted corresponding feasibility studies for the landfall design:

- Trenched LandFall [Ref 5]
- Microtunneling [Ref 4]
- HDD [Ref 18]

HDD method was found to be the most technically, economically and environmentally feasible method of constructing the landfall points. The Cape Ray NL HDD installation has an approximate length of 430 m and subsea exit point at 22 m water depth. Point Aconi NS HDD installation has an approximate length of 1100 m and subsea exit point at 12m m water depth. Refer to Drawings number M 60000 5 300 03 001 & M 60000 5 300 03 001 in Appendix A for more details. Both length and water depth are well within the achievable HDD construction techniques available today.

A conceptual HDD design was developed in the feasibility study. The design took into consideration geometrical, environmental, geological, analytical and installation factors. Figures 3 & 4 below show the conceptual design for each landfall point.

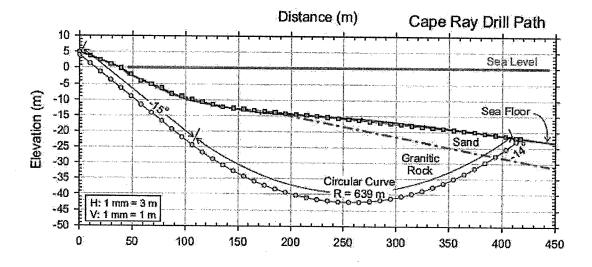


Figure 3: Cape Ray NL HDD Conceptual Design

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The final HDD design will be developed during the detailed engineering phase in consultation with the cable contractor. A detailed geotechnical program will be conducted in consultation with the HDD designer; the program will analyze the alignment route at regular intervals to specific depths by a sequence of sea based vertical boreholes, land based inclined borehole and test pits. The testing regime will capture all properties and influential parameters including but not limited to, compressive strength, pointload, permeability, conductivity and abrasion of soil on a range of samples taken from the retrieved cores.

APPENDIX A - DRAWINGS

Drawing Number	Title
M 20000 5 300 03 001	CAST subsea cable corridor and existing cables
M 60000 5 300 03 001	HDD Site overview Point Aconi
M 60000 5 300 03 002	HDD Site overview Cape Ray

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SCHEDULE "BB"

WCR RELEASE AND EQUITY FUNDING NOTICE

Date: Note 1

The Toronto-Dominion Bank

as Collateral Agent TD Bank Tower 66 Wellington Street West 9th Floor Toronto, Ontario M5K 1A2

Gentlemen:

We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

Pursuant to Section 7.7 of the ML Credit Agreement, we hereby request a WCR Release from the Working Capital Reserve Account for deposit into the Borrower Disbursement Account in an amount of CDN\$ Note 2 on Note 3 (the "WCR Release Date"), the whole in order to fund Eligible Project Costs in an aggregate amount of CDN\$ Note 4.

[NOTE TO DRAFT: The following paragraph should be included where the amount on deposit in the Working Capital Reserve Account is less than the amount of Eligible Project Costs intended to be funded.]

[Please note that the amount on deposit in the Working Capital Reserve Account is insufficient to fund the entire amount of aforementioned Eligible Project Costs. As such, we hereby notify you that an equity Investment in an amount of CDN\$ Note 5 will be made on or prior to the WCR Release Date.]

For the purposes hereof, we hereby represent and warrant that each and every one of the representations and warranties made under the ML Credit Agreement are true and correct on the date of this WCR Release and Equity Funding Notice, except to the extent that any such representation or warranty expressly relates to a particular date, in which case such representation or warranty is true and correct as at such date.

We further represent and warrant that no ML Event of Default has occurred and is continuing.

You will find attached all supporting documentation and information as will permit you to verify the statements, information and calculations contained herein. All of the information set forth herein and in all supporting documentation and information attached hereto is complete, correct and accurate in all material respects and we have no knowledge of any undisclosed fact which has or could materially affect the information set forth herein or in the supporting documentation and information attached hereto.

Yours truly,
NSP Maritime Link Incorporated
Per:

Notes:

- 1. The WCR Release and Equity Funding Notice must be delivered are least one (1) Business Day prior to the WCR Release Date.
- 2. The amount of the WCR Release must be less or equal to the amount on deposit in the Working Capital Reserve Account.
- 3. Insert the proposed WCR Release Date.
- 4. Insert the aggregate amount of Eligible Project Costs that will be funded in whole or in part with the WCR Release.
- 5. This amount is determined by subtracting the amount on deposit in the Working Capital reserve Account from the amount of Eligible Project Costs (i.e. the amount in Note 4).

SCHEDULE "CC"

FUNDING REQUEST SUPPORTING DOCUMENTATION





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SCHEDULE "DD"

SYSTEM COMPLETION PLAN

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

1. SYSTEM COMPLETION PLAN

- 1.1 To facilitate the orderly performance testing and commissioning of the equipment, the Borrower will develop a written plan (the "System Completion Plan") that will include:
 - 1.1.1 Description of the completion team organizational structure, roles and responsibilities;
 - 1.1.2 completion execution activities; and
 - 1.1.3 development and incorporation of the following:
 - 1.1.3.1 supplier guaranteed performance specifications;
 - 1.1.3.2 overall performance metrics;
 - 1.1.3.3 static and dynamic commissioning tests;
 - 1.1.3.4 procedures for Performance Testing;
 - 1.1.3.5 procedures for Commissioning Tests; and
 - 1.1.3.6 schedule of Performance Testing and Commissioning Test activities.
- 1.2 The System Completion Plan will be submitted by the Borrower to the Independent Engineer no later than one year prior to the scheduled date for Commissioning as set out in the Project Schedule.
- 1.3 The Independent Engineer will have thirty (30) days from the time that the Borrower submits the System Completion Plan to provide written comments and recommendations to the Borrower (the "IE Review").
- 1.4 The Borrower will revise and finalize the System Completion Plan based on the IE Review. The Borrower will submit the revised System Completion Plan to the Independent Engineer within ninety (90) days of receiving the IE Review.
- 1.5 The Independent Engineer will confirm acceptance of the revised System Completion Plan within fifteen (15) days of receipt. Upon receipt of the Independent Engineer's confirmation the System Completion Plan shall be appended to this Schedule as Exhibit "A".

2. TECHNICAL DISPUTE RESOLUTION

- 2.1 If the Borrower does not incorporate a comment or recommendation of the IE Review into the System Completion Plan then the Borrower must provide written reasons to the Independent Engineer detailing why the comment or recommendation was not adopted. The Borrower's written reasons must be submitted to the Independent Engineer within ninety (90) days of receipt of the IE Review.
- 2.2 Following the submission of the Borrower's written reasons for not adopting a comment or recommendation of the IE Review, the Borrower and the Funding Vehicle (collectively the "Parties") will have fifteen (15) days, during which the Parties will work together in good faith to reach a resolution. If a resolution is not reached within this period the matter will be deemed to be a dispute (the "Technical Dispute").
- 2.3 All Technical Disputes shall be resolved on an accelerated basis by an arbitrator who is a professional engineer qualified to understand and render an opinion regarding the Technical Dispute (the "Technical Expert"). The Parties shall confer in an effort to agree upon a Technical Expert within five (5) days. If the Parties are unable to agree upon the appointment of a Technical Expert, then at the end of such three (3) day period the Parties shall each, within three (3) days, notify the other Party in writing of its designation of a proposed Technical Expert. Within five (5) days of each Party's receipt of the proposed Technical Experts, the two (2) proposed Technical Experts shall select one of them to hear the Technical Dispute.
- 2.4 Each Party shall be required to put forward its proposed resolution to the Technical Dispute, based on an agreed statement of the nature of the Technical Dispute and agreed facts surrounding such dispute. Each Party's proposed resolution shall be delivered to the Technical Expert and the other Party not later than five (5) days after the selection of the Technical Expert.
- 2.5 The Technical Expert shall render a decision resolving the matter within five (5) days of receiving proposed resolution of the Parties. In rendering his or her decision, the Technical Expert shall be guided by consideration of this Agreement, Good Utility Practice, and Applicable Laws. For his or her decision, the Technical Expert shall only have the authority to select one Party's proposed resolution and, unless otherwise agreed to by the Parties in writing, shall make no other findings or determinations. The Technical Expert shall not award to either Party any relief greater than that initially sought by such Party in its proposed resolution. The decision of the Technical Expert with respect to the Technical Dispute shall be final and binding upon the Parties and not subject to appeal or review, whether through arbitration or otherwise.

EXHIBIT "A"

[System Completion Plan to be included as after it has been accepted in its final form by the Independent Engineer]

EXECUTION VERSION

LETTER AMENDING AGREEMENT

June 2, 2015

Sent By Electronic Mail

The Toronto-Dominion Bank, as Collateral Agent
TD Bank Tower
66 Wellington St. W., 9th Floor
Toronto ON M5K 1A2
Attention: Michael A. Freeman, Vice President, Loan Syndications-Agency

Maritime Link Financing Trust c/o BNY Trust Company of Canada, as trustee 320 Bay Street, 11th Floor Toronto, Ontario M5H 4A6 Attention: Corporate Trust Administration

Dear Sirs/Mesdames;

EXHIBIT B-1 OF THE ML CREDIT AGREEMENT

This letter will confirm our agreement to amend the ML Credit Agreement (the "MLCA") dated as at February 24, 2014 between The Toronto-Dominion Bank, as collateral agent, Maritime Link Financing Trust, by its trustee, BNY Trust Company of Canada, and NSP Maritime Link Incorporated, as borrower, pursuant to Section 17.2.1 of the MLCA as follows (the "Amendment"):

1. "Exhibit B-1" is deleted and replaced with "Schedule 1 to Exhibit B" attached hereto as Appendix 1 – New "Schedule 1 to Exhibit B".

Please confirm your agreement with the Amendment by signing below and returning one executed copy to my attention at your earliest convenience.

Yours truly,

NSP MARITIME LINK INCORPOR	ATED
Ву:	By: 5 6 1
Name: Rick Thoris	Name:
Title: President and CEO	Title: BRIAN RENDELL V.P. CORPORATE AFFAIRS

Acknow	ledged and agreed to this 30 day of June	e, 2015.	
THE TO	DRONTO-DOMINION BANK		
Ву:	misleman	By:	n Section
Name:	Michael A. Freeman	Name:	
Title:	Vice President, Loan Syndications - Agen	Cy Title:	
MARIT. By:	IME LINK FINANCING TRUST, by its	trustee, Bl	NY TRUST COMPANY OF CANADA
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	T, by its trustee, BNY TRUST COMPANY OF C	

Acknowledged and agreed to the	his 3011+ day of June	, 2015.
THE TORONTO-DOMINIO	N BANK	
By:	By:	
Name:	Name:	
Title:	Title:	
By: Name:	ING TRUST, by its trustee, BNY TRUS By: Name:	J. Steven Broude Authorized Signatory
Title:	Title:	

APPENDIX 1 NEW "SCHEDULE 1 TO EXHIBIT B"

[attached]

SCHEDULE 1 TO EXHIBIT B

FINANCING AND PAYMENT TERMS RELATING TO SERIES A BONDS

ML Construction Facility Limit: \$1.3 billion

FV Bonds: Series A Bonds issued by Maritime Link Financing Trust under the First Supplemental

Indenture on April 23, 2014

FV Bond Maturity Date: December 1st, 2052.

Applicable Interest Rate: 3.5% per year, payable semi-annual in arrears on June 1, and December 1 of

each year.

Sinking Fund Payments: Not Applicable

Sinking Fund Deposit Dates: Not Applicable

FV Payment Dates	Opening Principal Balance of ML Construction Loan	Principal Repayment of ML Construction Loan	Ending Principal Balance of ML Construction Loan
01-Jun-14	1,300,000,000		1,300,000,000
01-Dec-14	1,300,000,000	-	1,300,000,000
01-Jun-15	1,300,000,000	-	1,300,000,000
01-Dec-15	1,300,000,000	-	1,300,000,000
01-Jun-16	1,300,000,000	-	1,300,000,000
01-Dec-16	1,300,000,000	1 mars	1,300,000,000
01-Jun-17	1,300,000,000	-	1,300,000,000
01-Dec-17	1,300,000,000	348	1,300,000,000
01-Jun-18	1,300,000,000	-	1,300,000,000
01-Dec-18	1,300,000,000	-	1,300,000,000
01-Jun-19	1,300,000,000		1,300,000,000
01-Dec-19	1,300,000,000	-	1,300,000,000
01-Jun-20	1,300,000,000	***	1,300,000,000
01-Dec-20	1,300,000,000	20,000,000	1,280,000,000
01-Jun-21	1,280,000,000	20,000,000	1,260,000,000
01-Dec-21	1,260,000,000	20,000,000	1,240,000,000
01-Jun-22	1,240,000,000	20,000,000	1,220,000,000
01-Dec-22	1,220,000,000	20,000,000	1,200,000,000
01-Jun-23	1,200,000,000	20,000,000	1,180,000,000
01-Dec-23	1,180,000,000	20,000,000	1,160,000,000
01-Jun-24	1,160,000,000	20,000,000	1,140,000,000
01-Dec-24	1,140,000,000	20,000,000	1,120,000,000

Interest	Total	
Payment	payment of Principal	
	and Interest	
4,861,644	4,861,644	
22,750,000	22,750,000	
22,750,000	22,750,000	
22,750,000	22,750,000	
22,750,000	22,750,000	
22,750,000	22,750,000	
22,750,000	22,750,000	
22,750,000	22,750,000	
22,750,000	22,750,000	
22,750,000	22,750,000	
22,750,000	22,750,000	
22,750,000	22,750,000	
22,750,000	22,750,000	
22,750,000	42,750,000	
22,400,000	42,400,000	
22,050,000	42,050,000	
21,700,000	41,700,000	
21,350,000	41,350,000	
21,000,000	41,000,000	
20,650,000	40,650,000	
20,300,000	40,300,000	
19,950,000	39,950,000	

FV Payment Dates	Opening Principal Balance of ML Construction Loan	Principal Repayment of ML Construction Loan	Ending Principal Balance of ML Construction Loan
01-Jun-25	1,120,000,000	20,000,000	1,100,000,000
01-Dec-25	1,100,000,000	20,000,000	1,080,000,000
01-Jun-26	1,080,000,000	20,000,000	1,060,000,000
01-Dec-26	1,060,000,000	20,000,000	1,040,000,000
01-Jun-27	1,040,000,000	20,000,000	1,020,000,000
01-Dec-27	1,020,000,000	20,000,000	1,000,000,000
01-Jun-28	1,000,000,000	20,000,000	980,000,000
01-Dec-28	980,000,000	20,000,000	960,000,000
01-Jun-29	960,000,000	20,000,000	940,000,000
01-Dec-29	940,000,000	20,000,000	920,000,000
01-Jun-30	920,000,000	20,000,000	900,000,000
01-Dec-30	900,000,000	20,000,000	880,000,000
01-Jun-31	880,000,000	20,000,000	860,000,000
01-Dec-31	860,000,000	20,000,000	840,000,000
01-Jun-32	840,000,000	20,000,000	820,000,000
01-Dec-32	820,000,000	20,000,000	800,000,000
01-Jun-33	800,000,000	20,000,000	780,000,000
01-Dec-33	780,000,000	20,000,000	760,000,000
01-Jun-34	760,000,000	20,000,000	740,000,000
01-Dec-34	740,000,000	20,000,000	720,000,000
01-Jun-35	720,000,000	20,000,000	700,000,000
01-Dec-35	700,000,000	20,000,000	680,000,000
01-Jun-36	680,000,000	20,000,000	660,000,000
01-Dec-36	660,000,000	20,000,000	640,000,000
01-Jun-37	640,000,000	20,000,000	620,000,000
01-Dec-37	620,000,000	20,000,000	600,000,000
01-Jun-38	600,000,000	20,000,000	580,000,000
01-Dec-38	580,000,000	20,000,000	560,000,000
01-Jun-39	560,000,000	20,000,000	540,000,000
01-Dec-39	540,000,000	20,000,000	520,000,000
01-Jun-40	520,000,000	20,000,000	500,000,000
01-Dec-40	500,000,000	20,000,000	480,000,000
01-Jun-41	480,000,000	20,000,000	460,000,000
01-Dec-41	460,000,000	20,000,000	440,000,000
01-Jun-42	440,000,000	20,000,000	420,000,000
01-Dec-42	420,000,000	20,000,000	400,000,000
01-Jun-43	400,000,000	20,000,000	380,000,000

Interest	Total
Payment	payment
	of Principal
	and Interest
19,600,000	39,600,000
19,250,000	39,250,000
18,900,000	38,900,000
18,550,000	38,550,000
18,200,000	38,200,000
17,850,000	37,850,000
17,500,000	37,500,000
17,150,000	37,150,000
16,800,000	36,800,000
16,450,000	36,450,000
16,100,000	36,100,000
15,750,000	35,750,000
15,400,000	35,400,000
15,050,000	35,050,000
14,700,000	34,700,000
14,350,000	34,350,000
14,000,000	34,000,000
13,650,000	33,650,000
13,300,000	33,300,000
12,950,000	32,950,000
12,600,000	32,600,000
12,250,000	32,250,000
11,900,000	31,900,000
11,550,000	31,550,000
11,200,000	31,200,000
10,850,000	30,850,000
10,500,000	30,500,000
10,150,000	30,150,000
9,800,000	29,800,000
9,450,000	29,450,000
9,100,000	29,100,000
8,750,000	28,750,000
8,400,000	28,400,000
8,050,000	28,050,000
7,700,000	27,700,000
7,350,000	27,350,000
7,000,000	27,000,000

FV Payment Dates	Opening Principal Balance of ML Construction Loan	Principal Repayment of ML Construction Loan	Ending Principal Balance of ML Construction Loan
01-Dec-43	380,000,000	20,000,000	360,000,000
01-Jun-44	360,000,000	20,000,000	340,000,000
01-Dec-44	340,000,000	20,000,000	320,000,000
01-Jun-45	320,000,000	20,000,000	300,000,000
01-Dec-45	300,000,000	20,000,000	280,000,000
01-Jun-46	280,000,000	20,000,000	260,000,000
01-Dec-46	260,000,000	20,000,000	240,000,000
01-Jun-47	240,000,000	20,000,000	220,000,000
01-Dec-47	220,000,000	20,000,000	200,000,000
01-Jun-48	200,000,000	20,000,000	180,000,000
01-Dec-48	180,000,000	20,000,000	160,000,000
01-Jun-49	160,000,000	20,000,000	140,000,000
01-Dec-49	140,000,000	20,000,000	120,000,000
01-Jun-50	120,000,000	20,000,000	100,000,000
01-Dec-50	100,000,000	20,000,000	80,000,000
01-Jun-51	80,000,000	20,000,000	60,000,000
01-Dec-51	60,000,000	20,000,000	40,000,000
01-Jun-52	40,000,000	20,000,000	20,000,000
01-Dec-52	20,000,000	20,000,000	-

Interest	Total	
Payment	payment	
	of Principal	
	and Interest	
6,650,000	26,650,000	
6,300,000	26,300,000	
5,950,000	25,950,000	
5,600,000	25,600,000	
5,250,000	25,250,000	
4,900,000	24,900,000	
4,550,000	24,550,000	
4,200,000	24,200,000	
3,850,000	23,850,000	
3,500,000	23,500,000	
3,150,000	23,150,000	
2,800,000	22,800,000	
2,450,000	22,450,000	
2,100,000	22,100,000	
1,750,000	21,750,000	
1,400,000	21,400,000	
1,050,000	21,050,000	
700,000	20,700,000	
350,000	20,350,000	

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1 Request IR-4:

2

- 3 Exhibit N-1, p. 12, Table 1
- 4 Please reconcile Table 1 in the present application with Figure 2 (Breakdown of Maritime
- 5 Link Interim Assessment) on page 22 of Exhibit N-1 of the prior interim assessment
- 6 application (M07718).

7

8 Response IR-4:

9

- A comparison of the approved assessment in 2019 to the current requested assessment for 2020
- is provided below:

12

\$M	2020 Assessment - Current Application	2019 Assessment - Previous Interim Assessment	Difference
Depreciation	28.6	0.0	28.6
O&M	20.6	18.1	2.5
Debt Financing Costs			
Interest (Net)	44.5	45.0	(0.5)
Amortization of Debt Financing Charges	0.8	0.0	0.8
Equity Financing Cost	50.0	48.4	1.6
Total Assessment	144.5	111.5	33.0

1314

- The following describes each difference:
- 15 16
- Depreciation: NSPML deferred collection of depreciation in 2018 and 2019 and is now requesting the commencement of the recovery of depreciation in 2020 which will enable

payment of debt principal and corresponding return of equity in order to maintain the

- 17
- UARB approved debt to equity ratio of 70:30.
- 18 19
- O&M: Please refer to NSUARB IR-005.

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1		
2	•	Interest (Net): Interest revenues are forecasted to increase (and thus net interest expense is
3		forecasted to decrease in 2020) given the recovery of depreciation in the second half of
4		2020

5

67

8

- Amortization of Debt Financing Charges: NSPML agreed with the Board's proposal to defer recovery of these costs in 2018 and 2019 and has requested the commencement of recovery of these costs on June 1, 2020.
- Equity Financing Costs: the increase corresponds to an increased average shareholder equity balance in 2020 as compared to 2019.

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1	Requ	est IR-5:
2 3	Exhil	oit N-1, p. 15, line 1 and Table 2
4	NSPI	ML forecasts its Operating and Maintenance Costs for 2020 to a total of \$20.6 million,
5	statir	ng it represents an increase of approximately \$1 million to the same forecasted costs for
6	2020	during the 2017 interim assessment proceeding.
7		
8	(a)	Please reconcile Table 2 on page 15 of the current application with the 2020 forecasted
9		Operating and Maintenance Costs estimated during the 2017 interim assessment
10		proceeding (see also Exhibit N-1, M07718, page 22, lines 9-12 and Exhibit N-9,
11		M07348, RIR IR-17).
12		
13	(b)	Describe the nature of the increased submarine cable surveillance activities and the
14		reasons for the increase since 2017 (see line 7).
15 16	(c)	Describe the nature of the increased vegetation management and inspection work and
17		the reasons for the increase since 2017 (see line 7).
18 19	(d)	Describe the nature of the increased operations personnel and the reasons for the
20		increase since 2017 (see line 8). The labour and administration costs have increased
21		in this assessment request by almost a multiple of three compared to the forecast costs
22		included in the initial interim assessment. Please explain.
23 24	(e)	Please indicate the incremental amount of operations personnel reflected in the
25		increased Operating and Maintenance costs of approximately \$1 million since 2017,
26		both in dollar terms and in FTEs.
27 28	(f)	Does any portion of the increased Operating and Maintenance costs for 2020 include
29		potential trenching work or other protective measures for the submarine cable that

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1		was recently identified in the Quarterly Report Q2 2019, dated June 17, 2019, page
2		10, lines 27-31 (M09281)?
3		
4	(g)	In 2018 a small Contingency and Escalation was included in the Operating and
5		Maintenance forecast. Please indicate what was spent on each 2018 cost category to
6		reconcile with the contingency used.
7		
8	(h)	What is the basis for applying a Contingency and Escalation amount of \$1.5 million
9		in 2020 as part of Operating and Maintenance Costs?
10		
11	(i)	Please compare the actual Operating and Maintenance Costs covered by customers
12		in 2018 to the prior forecast used to set rates.
13		
14	Respo	onse IR-5:
15		
16	(a)	The 2020 (as well as 2018 and 2019) estimated Operating and Maintenance (O&M)
17		Costs were originally prepared in early 2016 in order to support the Maritime Link
18		component of NS Power's 2017-2019 Fuel Stability Plan application filed on March 7,
19		2016 and further defined in NSPI (NSUARB) IR-17 filed on April 8, 2016. NSPML was
20		able to maintain the total annual amounts estimated for 2018 and 2019 when it filed its
21		2017 Interim Cost Assessment Application on December 16, 2016 which assisted in
22		maintaining rate stability. These estimates, prepared in 2016, were based on NSPML's
23		knowledge at that time using common utility cost estimation procedures. The cost
24		estimation was conducted during the beginning of the construction phase of the project
25		and before NSPML developed its current operations and maintenance asset management
26		program and before the assets were fully constructed and in service. These estimates
27		assumed, for cost estimating purposes, that many activities would be outsourced rather
28		than performed by internal resources. NSPML is using internal resources to fulfill many

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of these responsibilities in order to retain the knowledge and experience within the company and in order to better control costs. A higher Contingency amount was also applied to the estimate in 2016 which was undertaken prior to actual operation of the asset.

Since that time, NSPML has refined its asset management operations and maintenance program based on the installed assets and with knowledge and experience with operating the assets as well as contracts entered into with service providers. This has led to greater cost forecasting confidence. As a result, while the total annual costs have not varied significantly from the original 2016 estimate, the allocation of costs amongst the categories have changed.

A comparison of the O&M costs being requested in this application and the estimate prepared in 2016 is as noted below. As discussed above, the differences are largely due to the level of detail known at the time the estimate and current forecast were prepared and how the underlying activities were estimated. While individual line amounts have certain degrees of variation, the total has not changed significantly.

Operating & Maintenance Cost Projection (Amounts in \$M's)	Current 2020 Assessment	Previous 2020 Estimate	Difference
Labour and Administration	6.9	2.8	4.1
Converters & substations operations	4.7	5.5	(0.8)
Marine Surveillance	3.3	1.8	1.5
Vegetation			
Management/Inspections	1.3	0.1	1.2
Insurance	2.2	4.1	(1.9)
Independent Engineer	0.3	0.5	(0.2)
Environmental Assessment	0.4	2.1	(1.7)
Contingency and Escalation	1.5	2.6	(1.1)
Total	20.6	19.5	1.1

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1		
2		The 2020 O&M costs being requested in this application are based on the following:
3		
4		• 22 full time equivalent (FTE) staff, the vast majority of whom are currently in place,
5		required to manage, operate and maintain the assets. These include staff in the
6		following areas: safety, environment, marine surveillance, administration,
7		accounting, procurement, technologists, operators, and engineers. This ensures that
8		operating knowledge and skill remains in-house rather than with third party
9		contractors;
10		• The manufacturer operations service agreement with ABB which is in place for a 3
11		to 5-year period;
12		• Completion of a marine survey of both cables as well as an estimate for possible
13		repair services based on actual experience in 2018;
14		• Preventative maintenance and inspection required for the transmission line
15		structures;
16		• Vegetation management to control growth since the transmission lines were
17		originally cleared in 2014-2015;
18		 Insurance at current market rates;
19		• Environmental assessment activities required for ice, marine, and caribou effects
20		monitoring; and
21		 Contingency and escalation to address potential storm and marine risks.
22 23		
24	(b)	Submarine cable surveillance costs have increased as compared to the estimate included in
25		the 2017 Interim Cost Assessment as when the original estimate was prepared, the
26		submarine cables had not yet been laid and the subsea environment was not as well known.
27		For the current 2020 forecast, NSPML considered actual costs incurred in 2018. The 2020

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1		survey of the submarine cables is expected to comprise of a geophysical and visual
2		inspection of each cable and its cable protection along the entirety of each cable route.
3		
4	(c)	Vegetation management and inspection work increased as compared to the original
5		estimate for several reasons. First, since the majority of tree clearing was completed in
6		2014-2015, vegetation management needs to take place in 2019 and 2020 to control growth
7		(five-year cycle planned for vegetation management). The original estimate assumed that
8		this activity would begin at a later date. Second, regarding transmission line inspection, it
9		has been determined that 10 percent of the structures being inspected will be climbed now,
10		as opposed to climbed at a later date as originally planned.
11		
12	(d)	The 2020 O&M costs estimated in 2016 assumed that certain operations and maintenance
13		activities would be outsourced. The original estimate assumed a total of six internal FTEs
14		which included two technologists, one maintenance person and one facilities manager. The
15		current 2020 Assessment includes 22 internal FTEs required to manage, operate and
16		maintain the assets as described in (a) above. This increase is mainly due to an assumption
17		regarding outsourcing of labour made during the original estimate in 2016. The current
18		model reflects NSPML's approach of maximizing the efficiencies and effectiveness of
19		having this operating knowledge and skill in-house as opposed to relying on third party
20		contractors.
21		
22	(e)	See responses to parts (a) and (d) above.
23		
24	(f)	Planned trenching protective measures for the submarine cable that are recently identified
25		in the Quarterly Report Q2 2019 are not included in the requested operating costs for 2020
26		as they will be treated as capital costs when incurred in 2019 and will be depreciated over
27		the life of the project.
28		
29	(g)	Contingency and Escalation was not used in 2018.

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1
2 (h) The Contingency and Escalation amount of \$1.5 million in the 2020 Operating and
3 Maintenance costs is an allowance to address potential costs associated with storm and
4 marine risks.

(i) Actual 2018 Operating and Maintenance costs as compared to the amounts requested in the 2017 application are as follows:

Operating & Maintenance Cost Projection (Amounts in \$M's)	2018 Actual	Previous 2018 Estimate	Difference
Labour and Administration	3.7	2.3	1.4
Converters & substations operations	2.4	3.9	(1.5)
Marine Surveillance	2.5	1.8	0.7
Vegetation Management/Inspections	0	0.1	(0.1)
Insurance	1.9	4.1	(2.2)
Independent Engineer	0.2	0.5	(0.3)
Environmental Assessment	0.4	0	0.4
Contingency and Escalation	0	1.6	(1.6)
Total	11.1	14.3	(3.2)

• Labour and Administration – higher by \$1.4 million due to an increase in FTEs to ensure the efficiencies and effectiveness of having this operating knowledge/skill inhouse. As noted in (a) above, the original estimate, performed in 2016, assumed for cost estimation purposes, that certain operations and maintenance activities would be outsourced which led to a lower amount estimated in the "Labour and Administration" category.

• Converters and Substations Operations – lower by \$1.5 million partly due to how the

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2		ABB service agreement was structured (i.e. with fewer ABB personnel), offset by
3		NSPML internal labour.
4	•	Marine Surveillance – higher by \$0.7 million due to performing a full survey of both
5		cables (as opposed to a partial survey of targeted locations on one cable as initially
6		considered) and remediation of resultant findings, as well as weather downtime given
7		unsafe water conditions for work (see comment on Contingency below).
8	•	Vegetation Management and Inspections – lower by \$0.1 million due to no activities
9		performed in the year.
10	•	Insurance - lower by \$2.2 million due to market rates being lower than originally
11		estimated.
12	•	Independent Engineer (IE) – lower by \$0.3 million due to less IE O&M activities than
13		originally estimated.
14	•	Environmental Assessment - higher by \$0.4 million due to environmental studies
15		completed (for example; grounding sites marine emissions monitoring, submarine
16		cables magnetic emissions monitoring, crab, lobster and caribou studies) that were not
17		originally forecasted.
18	•	Contingency and Escalation – The amount budgeted was not required since savings in
19		some areas off-set higher costs in other areas.

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1	Request	IR-6:
2 3	Exhibit 1	N-1, p. 13, lines 23-30
4	(a)	Is the depreciation of total capitalized construction costs for the Maritime Link
5		depreciated on a straight-line basis over the 35-year term?
6		
7	(b)	Please provide an amortization schedule showing the draw down of depreciation
8		over the 35-year term of the Maritime Link.
9 10	(c)	Is the \$20 million depreciation amount to be recovered on June 1, 2020, calculated
11	(C)	based on a pro rata share of the forecasted \$51 million per year over the 35-year
12		term? If not, how was the \$20 million amount for depreciation calculated?
13		term: If not, now was the \$20 minion amount for depreciation calculated:
14	(d)	If the \$20 million depreciation amount is only needed as of December 1, 2020, how
15		does NSPML account for interest on the funds collected from June 1, 2020?
16		
17	(e)	Please confirm June 1, 2020, as the commencement date for recovery of
18		depreciation is intended to align the commencement of depreciation with the
19		delivery of the NS Block as directed in the Board's 2017 Decision.
20		
21	(f)	Please confirm depreciation is merely an accounting entry and, while intended to
22		collect funds in a matching manner, this is not necessary as the first debt
23		repayment (cash outflow) will not occur until December 2020.
24		
25	(g)	Does NSPML require the funds monthly starting June 2020 in order to stay onside
26		of the various covenants?
27		
28		
29		

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1 2	Response I	R-6:
3		
4	(a)	NSPML expects that the determination of depreciation of the Maritime Link assets
5		over the 35-year term will be addressed during the final cost proceeding.
6		
7 8	(b)	NSPML has not calculated the annual depreciation post 2020 since final Project
9	(5)	capital costs have not yet been finalized.
10		
11	(c)	The \$20 million depreciation amount to be recovered on June 1, 2020, is not based
12		on a pro rata share of the forecasted \$51 million per year over the 35-year term.
13		NSPML has requested \$28.6 million in depreciation in 2020 to enable payment of
14		the first semi-annual principal debt payment due on December 1, 2020 (\$20 million)
15		and the corresponding return of equity (\$8.6 million) to maintain the Board-approved
16		Debt to Equity Ratio of 70:30. Please see Attachment 1 which references the initial
17		\$20 million principal payment due on December 1, 2020.
18		
19	(d)	NSPML is forecasting that it will earn interest revenues on cash balances including
20		the recovery of depreciation and other rate revenues throughout the year. This
21		forecasted interest revenue is used, for the benefit of customers, to offset interest
22		expense in the forecast of net interest expense being requested in this Application.
23		
24	(e)	Confirmed. See also responses to (f) and (g) below.
25 26		
27	(f)	Accounting Policy 5300 - Depreciation and Amortization Expense, paragraph 7
28		Accounting Policy 5300 provides that assets begin to be depreciated beginning in the
29		month they are placed in service. Based on that policy, the Maritime Link assets
30		would have begun to be depreciated in January 2018. In deference to the

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1		intergenerational equity concerns raised during the 2017 Interim Cost Assessmen
2		proceeding, NSPML proposed to defer such depreciation in 2018 and 2019 and
3		proposes in this Application to continue such deferral until June 2020. NSPML does
4		not agree with extending the deferral of depreciation beyond the date that the NS
5		Block commences as this would not be consistent with established accounting policy
6		
7	(g)	The Debt Service Coverage Ratio ("DSCR") is an important ML Credit Agreement
8		calculation that is impacted by the timing of the collection of revenues associated with
9		depreciation. The DSCR must be provided to Canada and the Collateral Agen
10		quarterly pursuant to Article 11.1.2 and Article 11.2.2 of the ML Credit Agreement to
11		demonstrate sufficient cash flow will be on hand to service the debt. As documented
12		in Attachment 1 of NSUARB IR-009, the quarterly DSCR is calculated on a 12 month
13		rolling basis retrospectively (using actual ML Project Revenues and actual Cash
14		Operating Costs as compared to actual Total Debt Service for the preceding 12 month
15		period) as well as on a prospective basis (based on a forecast of future ML Projective basis)
16		Revenues and Cash Operating Costs and Total Debt Service for the subsequent 12
17		months).
18		
19		The DSCR serves to provide Canada, as guarantor of the FLG debt, with protection
20		that sufficient cash flow will be on hand to service the debt - both interest and
21		principal. Since the \$20 million debt principal payment on December 1, 2020 is fixed
22		and will be part of the Total Debt Service calculation for both retrospective and
23		prospective DSCR calculations, it is important that sufficient ML Project Revenues
24		including revenues from the recovery of depreciation, are received in order for the
25		DSCR to remain above 1.4 times as outlined in Article 10.25 of the ML Credit

Agreement.

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Given the rolling retrospective and prospective inputs to the DSCR, the exact date by
which NSPML must commence recovery of depreciation proceeds cannot be
determined with precision without knowing for certain what other inputs will be (for
example, recovery of other ML Project Revenues such as the \$10 million holdback
and the incurrence of actual Cash Operating Costs). As a result, NSPML cannot
definitively say whether it "requires" the recovery of depreciation starting June 2020.
NSPML expects to be in compliance with the ML Credit Agreement by receiving this
source of revenue beginning in June 2020 but can't say for certain how long a delay
in receiving such revenues could be withstood without potentially resulting in the
DSCR dipping below 1.4 times on either a prospective or retrospective basis for the
quarterly DSCR calculations that include the period from June 1 to December 1, 2020.

Please also refer to the response to NSUARB IR-009 (e).

SCHEDULE A

to the First Supplemental Indenture dated as of April _ 2014 between

MARITIME LINK FINANCING TRUST by itstrustee BNY TRUST COMPANY OF CANADA and COMPUTERSHARE TRUST COMPANY OF CANADA, as Indenture Trustee

PAYMENT SCHEDULE

Scheduled Bond Payment Dates	Opening Principal Balance	Interest Payment	Principal Payment	Total Payment	Ending Principal Balance
1-Jun-14	1,300,000,000	4,861,644	-	4,861,644	1,300,000,000
1-Dec-14	1,300,000,000	22,750,000	-	22,750,000	1,300,000,000
1-Jun-15	1,300,000,000	22,750,000	-	22,750,000	1,300,000,000
1-Dec-15	1,300,000,000	22,750,000	-	22,750,000	1,300,000,000
1-Jun-16	1,300,000,000	22,750,000	-	22,750,000	1,300,000,000
1-Dec-16	1,300,000,000	22,750,000	-	22,750,000	1,300,000,000
1-Jun-17	1,300,000,000	22,750,000	-	22,750,000	1,300,000,000
1-Dec-17	1,300,000,000	22,750,000	-	22,750,000	1,300,000,000
1-Jun-18	1,300,000,000	22,750,000	-	22,750,000	1,300,000,000
1-Dec-18	1,300,000,000	22,750,000	-	22,750,000	1,300,000,000
1-Jun-19	1,300,000,000	22,750,000	-	22,750,000	1,300,000,000
1-Dec-19	1,300,000,000	22,750,000	-	22,750,000	1,300,000,000
1-Jun-20	1,300,000,000	22,750,000	-	22,750,000	1,300,000,000
1-Dec-20	1,300,000,000	22,750,000	20,000,000	42,750,000	1,280,000,000
1-Jun-21	1,280,000,000	22,400,000	20,000,000	42,400,000	1,260,000,000
1-Dec-21	1,260,000,000	22,050,000	20,000,000	42,050,000	1,240,000,000
1-Jun-22	1,240,000,000	21,700,000	20,000,000	41,700,000	1,220,000,000
1-Dec-22	1,220,000,000	21,350,000	20,000,000	41,350,000	1,200,000,000
1-Jun-23	1,200,000,000	21,000,000	20,000,000	41,000,000	1,180,000,000
1-Dec-23	1,180,000,000	20,650,000	20,000,000	40,650,000	1,160,000,000
1-Jun-24	1,160,000,000	20,300,000	20,000,000	40,300,000	1,140,000,000
1-Dec-24	1,140,000,000	19,950,000	20,000,000	39,950,000	1,120,000,000
1-Jun-25	1,120,000,000	19,600,000	20,000,000	39,600,000	1,100,000,000
1-Dec-25	1,100,000,000	19,250,000	20,000,000	39,250,000	1,080,000,000
1-Jun-26	1,080,000,000	18,900,000	20,000,000	38,900,000	1,060,000,000
1-Dec-26	1,060,000,000	18,550,000	20,000,000	38,550,000	1,040,000,000
1-Jun-27	1,040,000,000	18,200,000	20,000,000	38,200,000	1,020,000,000
1-Dec-27	1,020,000,000	17,850,000	20,000,000	37,850,000	1,000,000,000
1-Jun-28	1,000,000,000	17,500,000	20,000,000	37,500,000	980,000,000
1-Dec-28	980,000,000	17,150,000	20,000,000	37,150,000	960,000,000
1-Jun-29	960,000,000	16,800,000	20,000,000	36,800,000	940,000,000
1-Dec-29	940,000,000	16,450,000	20,000,000	36,450,000	920,000,000
1-Jun-30	920,000,000	16,100,000	20,000,000	36,100,000	900,000,000
1-Dec-30	900,000,000	15,750,000	20,000,000	35,750,000	880,000,000
1-Jun-31	880,000,000	15,400,000	20,000,000	35,400,000	860,000,000
1-Dec-31	860,000,000	15,050,000	20,000,000	35,050,000	840,000,000

Scheduled Bond Payment Dates	Opening Principal Balance	Interest Payment	Principal Payment	Total Payment	Ending Principal Balance
1-Jun-32	840,000,000	14,700,000	20,000,000	34,700,000	820,000,000
1-Dec-32	820,000,000	14,350,000	20,000,000	34,350,000	800,000,000
1-Jun-33	800,000,000	14,000,000	20,000,000	34,000,000	780,000,000
1-Dec-33	780,000,000	13,650,000	20,000,000	33,650,000	760,000,000
1-Jun-34	760,000,000	13,300,000	20,000,000	33,300,000	740,000,000
1-Dec-34	740,000,000	12,950,000	20,000,000	32,950,000	720,000,000
1-Jun-35	720,000,000	12,600,000	20,000,000	32,600,000	700,000,000
1-Dec-35	700,000,000	12,250,000	20,000,000	32,250,000	680,000,000
1-Jun-36	680,000,000	11,900,000	20,000,000	31,900,000	660,000,000
1-Dec-36	660,000,000	11,550,000	20,000,000	31,550,000	640,000,000
1-Jun-37	640,000,000	11,200,000	20,000,000	31,200,000	620,000,000
1-Dec-37	620,000,000	10,850,000	20,000,000	30,850,000	600,000,000
1-Jun-38	600,000,000	10,500,000	20,000,000	30,500,000	580,000,000
1-Dec-38	580,000,000	10,150,000	20,000,000	30,150,000	560,000,000
1-Jun-39	560,000,000	9,800,000	20,000,000	29,800,000	540,000,000
1-Dec-39	540,000,000	9,450,000	20,000,000	29,450,000	520,000,000
1-Jun-40	520,000,000	9,100,000	20,000,000	29,100,000	500,000,000
1-Dec-40	500,000,000	8,750,000	20,000,000	28,750,000	480,000,000
1-Jun-41	480,000,000	8,400,000	20,000,000	28,400,000	460,000,000
1-Dec-41	460,000,000	8,050,000	20,000,000	28,050,000	440,000,000
1-Jun-42	440,000,000	7,700,000	20,000,000	27,700,000	420,000,000
1-Dec-42	420,000,000	7,350,000	20,000,000	27,350,000	400,000,000
1-Jun-43	400,000,000	7,000,000	20,000,000	27,000,000	380,000,000
1-Dec-43	380,000,000	6,650,000	20,000,000	26,650,000	360,000,000
1-Jun-44	360,000,000	6,300,000	20,000,000	26,300,000	340,000,000
1-Dec-44	340,000,000	5,950,000	20,000,000	25,950,000	320,000,000
1-Jun-45	320,000,000	5,600,000	20,000,000	25,600,000	300,000,000
1-Dec-45	300,000,000	5,250,000	20,000,000	25,250,000	280,000,000
1-Jun-46	280,000,000	4,900,000	20,000,000	24,900,000	260,000,000
1-Dec-46	260,000,000	4,550,000	20,000,000	24,550,000	240,000,000
1-Jun-47	240,000,000	4,200,000	20,000,000	24,200,000	220,000,000
1-Dec-47	220,000,000	3,850,000	20,000,000	23,850,000	200,000,000
1-Jun-48	200,000,000	3,500,000	20,000,000	23,500,000	180,000,000
1-Dec-48	180,000,000	3,150,000	20,000,000	23,150,000	160,000,000
1-Jun-49	160,000,000	2,800,000	20,000,000	22,800,000	140,000,000
1-Dec-49	140,000,000	2,450,000	20,000,000	22,450,000	120,000,000
1-Jun-50	120,000,000	2,100,000	20,000,000	22,100,000	100,000,000
1-Dec-50	100,000,000	1,750,000	20,000,000	21,750,000	80,000,000
1-Jun-51	80,000,000	1,400,000	20,000,000	21,400,000	60,000,000
1-Dec-51	60,000,000	1,050,000	20,000,000	21,050,000	40,000,000
1-Jun-52	40,000,000	700,000	20,000,000	20,700,000	20,000,000
1-Dec-52	20,000,000	350,000	20,000,000	20,350,000	-

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1	Request	IR-7:
2		
3	Exhibit	N-1, p. 14, lines 1-3
4	NSPML	states that it requires \$8.6 million by December 1, 2020, to return equity invested
5	by its sh	areholder in order to maintain the UARB approved 70:30 Debt to Equity Ratio.
6	-	
7	(a)	Please identify any Federal Loan Guarantee covenants related to this ratio.
8		
9	(b)	Please provide the assumptions (including covenant requirements) used in the
10		calculation to maintain the required Debt to Equity Ratio of 70:30, together with
11		the calculation itself.
12		
13	(c)	Is the above calculation based on the Debt to Equity Ratio as of a fixed date (i.e.,
14		December 1, 2020) or based upon average shareholder equity (capital stock and
15		retained earnings) over five quarters? Does this differ from how NSPML
16		calculates actual annual earnings?
17		
18	(d)	If the amounts differ, please reconcile the equity amount used above in questions
19		b) and c) versus the amount of \$553 million described on page 18, line 9, of the
20		application.
21		
22	(e)	Has any analysis been conducted with respect to achieving the 70:30 Debt to
23		Equity Ratio and the earnings band approved by the Board for NSPML? If so,
24		please provide.
25		
26	(f)	Please provide the quarterly Debt to Equity Ratio since the inception of the
27		project.
28		
29		

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1	(g)	Please model how receipt of revenues in advance of the debt repayment impact
2		the Debt to Equity Ratios through 2020.
3		
4	(h)	What would the impact be to NSPML's Debt to Equity Ratio if the \$29.4 million
5		(\$28.6 million depreciation + \$0.8 million deferred financing) were collected from
6		ratepayers as proposed but remained in NS Power until the NS Block is confirmed
7		and the debt repayment is required in December 2020?
8		
9	(i)	What would the impact be to NSPML's Debt to Equity Ratio if the \$29.4 million
10		funds were delayed until the final cost decision?
11		
12	(j)	What would the impact be to NSPML's Debt to Equity Ratio, if the \$8.6 million
13		NSPML has indicated, needs to be returned to its shareholder was delayed until
14		the final cost decision?
15		
16	(k)	What would the impact be to NSPML's Debt to Equity Ratio if the \$29.4 million
17		was covered through short term debt?
18		
19	(1)	What would the impact be to NSPML's Debt to Equity Ratio if the \$29.4 million
20		was covered through shareholder funding?
21		
22		
23		
24		

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1	Response	2 IR-7:
2		
3	(a)	Article 3.1 of the Federal Loan Guarantee Term Sheet required debt financing not to
4		exceed 70 percent. Consistent with the Term Sheet, the ML Credit Agreement defines
5		Debt Rateable Share with respect to all capital funding requests; for example, at the
6		time of any draw of funds from debt as contemplated in Article 7.3 (relating to draws
7		from the ML Trust) or 12.2 (in relation to Additional Debt), that the Debt to Equity
8		Ratio ("DER") as per Definitions in the ML Credit Agreement) is calculated and
9		NSPML is obligated to ensure a minimum of 30 percent equity thickness prior to the
10		advance of any funds from the debt facility. There is no maximum equity share defined.
11		
12	(b)	The definition of Debt to Equity Ratio ("DER") is included in the ML Credit
13		Agreement and is the result of dividing the sum of the principal amount of the ML
14		Construction Loan plus any Additional Debt (NSPML does not have any Additional
15		Debt) by the sum of Base Equity Contribution (common stock) plus retained earnings
16		calculated pursuant to GAAP. The articles from the ML Credit Agreement noted in (a)
17		provide additional information relating to the maintenance of this calculation. See the
18		response to (f) below for examples of this calculation throughout the Project to date.
19		
20	(c)	The DER is calculated using debt and equity as at specific dates (as opposed to on an
21		average basis). The same determination of equity is used when determining the five-
22		quarter average shareholder equity amount. This is consistent with how NS Power
23		calculates its average equity and return on equity.
24		
25	(d)	The amounts of equity do not differ since the forecasted 5 quarter average equity of
26		\$553 million is based upon the same calculation of shareholder equity in each of the
27		five quarters as is the case when the DER is determined.
28		
29	(e)	NSPML has not conducted such analysis.

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(f) The table below depicts the DER since inception of the project:

^	٦
2	/
7	
-	
	4

NSP Maritime Link Inc. Unconsolidated						
Debt to Equity ratio 2011-2020						
		Common		Retained (Operating)	Total	
	Debt	Stock	Equity	Earnings	Equity	DER
31-Dec					0.0	
31-Ma			0.0		0.0	
30-Jun			0.0		0.0	
30-Sep	0.0		0.0		0.0	
31-Dec	-11 0.0		0.2		0.2	
31-Ma	r-12 0.0		0.3		0.3	
30-Jun	1-12 0.0		0.4		0.4	
30-Sep	0.0		0.6		0.6	
31-Dec	c-12 0.0		1.9		1.9	
31-Ma	r-13 0.0	25.0	2.7		27.7	
30-Jun	0.0	38.0	3.6		41.6	
30-Sep	0.0	50.5	4.7		55.2	
31-Dec	0.0	61.5	6.1		67.6	
31-Ma	r-14 0.0	76.5	7.8		84.3	
30-Jun	-14 68.5	141.5	10.8		152.3	31
30-Sep	-14 68.5	141.5	14.3		155.8	31
31-Dec	c-14 138.8	3 141.5	17.7		159.2	47
31-Ma	r-15 213.5	5 141.5	21.4		162.9	57
30-Jun	-15 253.9	9 141.5	25.0		166.5	60
30-Sep	o-15 340.9	9 141.5	28.8		170.3	67
31-Dec	c-15 418.3	3 154.9	32.7		187.6	69
31-Ma	r-16 460.5	5 169.3	37.0		206.4	69
30-Jun	ı-16 542.6	5 203.9	41.4		245.3	69
30-Sep	-16 618.2	1 225.2	47.1		272.4	69
31-Dec	c-16 725.0	261.5	53.6		315.1	70
31-Ma		302.5	60.9		363.4	69
30-Jun	ı-17 953.7	7 366.9	69.4		436.3	69
30-Sep	-17 1,044	.7 389.6	79.3		469.0	69
31-Dec	:-17 1,172	.4 419.7	90.0		509.7	70
31-Ma	r-18 1,265	.3 452.3	90.0	15.3	557.5	69

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30-Jun-18	1,265.3	452.3	90.0	30.0	572.2	69
30-Sep-18	1,265.3	452.3	90.0	10.5	552.7	70
31-Dec-18	1,265.3	452.3	90.0	3.1	545.3	70
31-Mar-19	1,265.3	452.3	90.0	7.0	549.2	70
30-Jun-19	1,265.3	452.3	90.0	6.3	548.6	70

(g) Receipt of revenues in advance of the debt repayment has a nominal impact on the DER since this timing does not result in a change in the debt balance and the impact on net earnings and retained earnings is nominal (since revenue from depreciation is offset by depreciation expense). As such, NSPML has not modeled this scenario.

(h) Presuming NSPML collects the \$29.4 million from NS Power prior to December 1, 2020, NSPML expects the impact to the DER during the intervening period would be nominal since there would be no direct impact on net earnings and retained earnings given both revenue from depreciation and depreciation expense would be impacted by the same amount.

(i) Presuming that the UARB's final cost decision is made in 2020, the response is the same as in (h) above.

(j) Presuming that the UARB's final cost decision is made in 2020, the response is the same as in (h) above.

(k) The ML Credit Agreement does not permit NSPML to borrow in the scenario posed in the question.

(l) If the shareholder funded the \$20 million debt payment and did not receive the \$8.6 million return of equity, the DER as at December 1, 2020 would approximate 69:31 – a higher level of equity thickness than would be the case otherwise. This would not be in the

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1	customers' best interest since this would increase the level of shareholder equity on which
2	the 9 percent rate of return would be applied.

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1	Requ	nest IR-8:	
2			
3			
4	Re: I	NSPML states it is seeking to recover installments commencing June 1, 2019 as noted in	
5	the application on page 14 of 21:		
6			
7	(a)	Please confirm this was intended to be June 1, 2020.	
8	(b)	Would any harm come from recovery of these funds starting December 1, 2020?	
9	(c)	Does NSPML expect the final cost application to be filed prior to repayment of debt	
10		or equity?	
11			
12	Response IR-8:		
13			
14	(a)	Confirmed.	
15			
16	(b)	Please refer to NSUARB IR-006 (g).	
17			
18	(c)	Yes	

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1	Requ	test IR-9:
2 3	Exhi	bit N-1, p. 16, lines 15-17 and p. 17, lines 2-7
4	NSP	ML states that \$45.5 million in coupon interest costs payable by NSPML will be partially
5	offse	t by interest revenues from cash held in restricted accounts.
6		
7	(a)	Please explain how the cash reserve in the Debt Service Reserve Account is required
8		by the terms of the ML Credit Agreement to increase from \$22.8 million to \$42.8
9		million in 2020. Please refer to the specific provision(s) of the ML Credit Agreement
10		which requires this increase.
11		
12	(b)	Except for the Debt Service Reserve Account, describe any other restricted accounts
13		in which a cash reserve is held and provide an accounting for any forecasted interest
14		revenues.
15		
16	(c)	With respect to the response in question b), are these restricted accounts the same as
17		the "cash balances outside of the Debt Service Reserve Account" referenced in
18		M07718, Exhibit N-8, NSPML (NSUARB) RIR-11(a)?
19		
20	(d)	Please provide this debt service ratio (including inputs) quarterly since the inception
21		of the project.
22		
23	(e)	Please forecast this debt service ratio (including inputs) through 2020 based on
24		NSPML's application request.
25		
26	(f)	Please provide the inputs required through 2020 that reflect the lowest assessment
27		required to maintain the 1.4 times total debt service ratio.
28		
29		

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Response IR-9:

(a) Article 8.3 of the ML Credit Agreement requires NSPML to maintain a prescribed Debt Service Reserve Account ("DSRA") with the Minimum DSRA Requirement (which is equal to total interest and principal amount of the ML Construction Loan to be repaid in the following six month period) as at the then most recent Minimum DSRA Requirement Fixing Date. Article 13.20 of the ML Credit Agreement details the Event of Default where the Debt Service Reserve Account (DSRA) balance is less than the Minimum DSRA Requirement. The minimum DSRA Requirement increases in 2020 by \$20 million given the initial principal payment on December 1, 2020. For reference, the following table lists the pre-determined interest and principal payments due in 2020:

FV Payment Date	Principal Payment (\$)	Interest Payment (\$)	Total (\$)
June 1, 2020	0	22,750,000	22,750,000
December 1, 2020	20,000,000	22,750,000	42,750,000

(b)

The only other restricted account that is forecasted to carry a balance in 2020 is the Borrower Project Funding Account (BPFA). Article 8.1.2.2 of the ML Credit Agreement requires that all cash received by NSPML be initially deposited into the BPFA which is restricted and controlled by the Collateral Agent. The balance in this account currently earns interest revenue at a rate of approximately 2 percent which varies based on the TD Prime Rate. The balance in this account will vary depending on the timing of receipt of revenues, O&M payments and related HST input tax recoveries, payment of interest and principal as well as payment of dividends. NSPML has forecasted interest revenue of approximately \$0.3 million on this account during 2020. This revenue is for the benefit of

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1 customers as it reduces interest expense in the determination of net interest revenues being 2 requested in this Application.

3

(c) Yes.

567

8

9

10

(d) Article 11.1.2 and 11.2.2 of the ML Credit Agreement requires NSPML to provide a ML Compliance Certificate quarterly during the Operating Period. These quarterly certificates include the calculation of both the retrospective and prospective Debt Service Coverage Ratios. Please refer to attachment 1 for copies of all ML Compliance Reports submitted to date.

1112

13

14

15

16

17

(e) The ML Compliance Report which will be filed with the Collateral Agent in April 2020 (filed in respect of Annual Reporting requirements defined by Article 11.2.2 of the ML Credit Agreement) will report the Prospective DSCR based on forecasted ML Project Revenues and Cash Operating Costs from January to December 2020. The calculation below represents a forecast of what we anticipate the report to contain based on the information currently available.

19

20

18

Further ML Compliance Reports filed throughout 2020 will include revenue and cost assumptions for 2021.

22

Prospective Debt Service Coverage Ratio (As-Anticipated in the Q4 2019 ML Compliance Report) (\$ million)	
ML Project Revenues forecast for January to December 2020 (excluding \$10 million holdback cash contingent on UARB	
determination)	134.5
Cash Operating Costs forecasted for 2020 (O&M)	(20.6)
Base Cash Flow	

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Interest payment - Jun. 1, 2020	22.8	
Interest payment - Dec. 1, 2020	22.8	
Principal payment - Dec. 1, 2020	20.0	
Total Debt Service	65.5	
Prospective Debt Service Coverage Ratio		
(Base Cash Flow / Total Debt Service)	1.74	

While this calculation exceeds the 1.40~x ratio outlined in Article 10.25 of the ML Credit Agreement, if ML Revenues associated with depreciation in 2020~(\$28.6~million) were to be excluded from the \$134.5~million noted in the above table, the DSCR would dip below the 1.40~x threshold to approximately 1.3~x.

The DSCR also has to be met on a retrospective basis which would include <u>actual</u> Cash Operating Costs which could exceed the forecasted \$20.6 million due to a number of potential factors including those which are unforeseen and beyond NSPML's control. In that situation, the DSCR would decline further below the 1.40x threshold.

(f)

As explained in the response to NSUARB IR-006 (g) and in (e) above, since the there are factors such as <u>actual</u> Cash Operating Costs (for example; O&M which may be influenced by unforeseen external factors) that cannot be determined in advance. Since the DSCR has to be calculated not only a prospective basis but also a retrospective basis (using <u>actual ML Project Revenues and actual Cash Operating Costs from the preceding 12 months), an exact minimum revenue requirement to satisfy the minimum DSCR cannot be determined in advance.</u>

SCHEDULE "R"

ML COMPLIANCE CERTIFICATE

Date: May 30, 2018

The Toronto-Dominion Bank

as Collateral Agent
TD Bank Tower
66 Wellington Street West
9th Floor
Toronto, Ontario M5K 1A2

We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

This certificate is delivered to you pursuant to subsection 11.1.3 of the ML Credit Agreement.

- I, Brian Rendell, the Vice President, Finance & Commercial of the Borrower, in my capacity as an officer of the Borrower and without personal liability, do hereby certify that:
- 1. I have taken cognizance of the ML Credit Agreement and each of the other ML Project Finance Documents, and all of the terms, representations and warranties, covenants and conditions of the ML Credit Agreement and each of the other ML Project Finance Documents to be performed or complied with by the Borrower at or prior to the date thereof have been performed or complied with;
- 2. I have taken cognizance and reviewed the transactions, operations and status of business of the Borrower, since the Closing Date and all conditions and requirements of the ML Credit Agreement and of the other ML Project Finance Documents and of all other deeds or agreements governing the borrowings of the Borrower, have been accomplished and satisfied and I do not know of the existence, as of the date hereof, of a condition or of any fact whatsoever, constituting a ML Event of Default that is continuing.

- 3. to my Knowledge, except as otherwise disclosed to the Collateral Agent in writing, the representations and warranties set forth in Article 9 of the ML Credit Agreement are still true and correct in all material respects as of the date of this certificate (except in the case of representations stated to be as of a specific date) with the same force and effect as if made at and as of such date;
- 4. The information and the Financial Statements attached hereto for the fiscal quarter ended March 31, 2018 (the "Quarter") are complete and correct in all material respects and present fairly, in accordance with GAAP, the unconsolidated or consolidated, as the case may be, financial position of the Borrower as at the end of such Quarter, subject only to normal year-end auditing adjustments, or as at the end of such Year, as the case may be;
- 5. As at March 31, 2018, being the last day of the Quarter immediately preceding the date of this certificate, the Retrospective DSCR, calculated on a rolling twelve (12) month period, was nil, and is calculated as follows¹:
 - (i) the Base Cash Flow of the Borrower for the period of the most recently completed twelve (12) calendar months:

(line (a) + line (b) - line (c)):

CDN\$ 22,512,349

(a) ML Project Revenues

CDN\$ 23,717,580

Note: ML Project Revenues include \$2,500,000 of accrued revenue receivable.

(b) Liquidity Reserves

CDN\$

0

(c) Cash Operating Costs

CDN\$ 1,205,231

(ii) The Total Debt Service for the period of the most recently completed twelve (12) calendar months: CDN\$ 0

Retrospective DSCR = (i) \div (ii) = NIL

Note: There were no debt service payments required in the period.

¹ When calculating the Retrospective DSCR prior to the completion of twelve (12) full calendar months commencing after the Commissioning Date, the completed months that commenced after such date and ended on or prior to the date of calculation are to be taken into account and the Retrospective DSCR will be calculated on an annualized basis with such months

- 6. As at March 31, 2018, being the last day of the Quarter immediately preceding the date of this certificate, the Prospective DSCR was **2.09**, and is calculated as follows:
 - (i) The Base Cash Flow of the Borrower for the period of the twelve (12) calendar months immediately following the date of this certificate

(line (a) + line (b) - line (c)):		CDN\$ 95,160,330
(a)	ML Project Revenues	CDN\$ 110,000,000
(b)	Liquidity Reserves	CDN\$ 0
(c)	Cash Operating Costs	CDN\$ 14,839,670

(ii) The Total Debt Service for such period: CDN\$ 45,500,000

Prospective DSCR = (i) \div (ii) = 2.09

Signed at Halifax, Nova Scotia, this 30th day of May, 2018.

Name:

Brian Rendell

Title:

Vice President, Finance & Commercial,

NSP Maritime Link Incorporated

SCHEDULE "R"

ML COMPLIANCE CERTIFICATE

Date: August 29, 2018

The Toronto-Dominion Bank

as Collateral Agent TD Bank Tower 66 Wellington Street West 9th Floor Toronto, Ontario M5K 1A2

We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

This certificate is delivered to you pursuant to subsection 11.1.3 of the ML Credit Agreement.

- I, Brian Rendell, the Vice President, Finance & Commercial of the Borrower, in my capacity as an officer of the Borrower and without personal liability, do hereby certify that:
- 1. I have taken cognizance of the ML Credit Agreement and each of the other ML Project Finance Documents, and all of the terms, representations and warranties, covenants and conditions of the ML Credit Agreement and each of the other ML Project Finance Documents to be performed or complied with by the Borrower at or prior to the date thereof have been performed or complied with;
- 2. I have taken cognizance and reviewed the transactions, operations and status of business of the Borrower, since the Closing Date and all conditions and requirements of the ML Credit Agreement and of the other ML Project Finance Documents and of all other deeds or agreements governing the borrowings of the Borrower, have been accomplished and satisfied and I do not know of the existence, as of the date hereof, of a condition or of any fact whatsoever, constituting a ML Event of Default that is continuing.

- 3. to my Knowledge, except as otherwise disclosed to the Collateral Agent in writing, the representations and warranties set forth in Article 9 of the ML Credit Agreement are still true and correct in all material respects as of the date of this certificate (except in the case of representations stated to be as of a specific date) with the same force and effect as if made at and as of such date;
- 4. The information and the Financial Statements attached hereto for the fiscal quarter ended June 30, 2018 (the "Quarter") are complete and correct in all material respects and present fairly, in accordance with GAAP, the unconsolidated or consolidated, as the case may be, financial position of the Borrower as at the end of such Quarter, subject only to normal year-end auditing adjustments, or as at the end of such Year, as the case may be;
- 5. As at June 30, 2018, being the last day of the Quarter immediately preceding the date of this certificate, the Retrospective DSCR, calculated on a rolling twelve (12) month period, was nil, and is calculated as follows¹:
 - (i) the Base Cash Flow of the Borrower for the period of the most recently completed twelve (12) calendar months:

(line (a) + line (b) - line (c)):

CDN\$ 42,990,007

(a) ML Project Revenues

CDN\$ 46,092,475

Note: ML Project Revenues include \$5,000,000 of accrued revenue receivable.

(b) Liquidity Reserves

CDN\$

0

(c) Cash Operating Costs

CDN\$ 3,102,468

(ii) The Total Debt Service for the period of the most recently completed twelve (12) calendar months: CDN\$ 21,912,762

Retrospective DSCR = (i) \div (ii) = 1.96

¹ When calculating the Retrospective DSCR prior to the completion of twelve (12) full calendar months commencing after the Commissioning Date, the completed months that commenced after such date and ended on or prior to the date of calculation are to be taken into account and the Retrospective DSCR will be calculated on an annualized basis with such months

- 6. As at June 30, 2018, being the last day of the Quarter immediately preceding the date of this certificate, the Prospective DSCR was <u>1.87</u>, and is calculated as follows:
 - (i) The Base Cash Flow of the Borrower for the period of the twelve (12) calendar months immediately following the date of this certificate

(line (a) + line (b) - line (c)):		CDN\$ 85,200,000
(a)	ML Project Revenues	CDN\$ 105,500,000
(b)	Liquidity Reserves	CDN\$ 0
(c)	Cash Operating Costs	CDN\$ 20,300,000

(ii) The Total Debt Service for such period: <u>CDN\$ 45,500,000</u>

Prospective DSCR = (i) \div (ii) = 1.87

Signed at Halifax, Nova Scotia, this 29th day of August, 2018.

Name:

Brian Rendell

Title:

Vice President, Finance & Commercial,

NSP Maritime Link Incorporated

SCHEDULE "R"

ML COMPLIANCE CERTIFICATE

Date: November 29, 2018

The Toronto-Dominion Bank

as Collateral Agent TD Bank Tower 66 Wellington Street West 9th Floor Toronto, Ontario M5K 1A2

We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

This certificate is delivered to you pursuant to subsection 11.1.3 of the ML Credit Agreement.

I, Brian Rendell, the Vice President, Finance & Commercial of the Borrower, in my capacity as an officer of the Borrower and without personal liability, do hereby certify that:

- 1. I have taken cognizance of the ML Credit Agreement and each of the other ML Project Finance Documents, and all of the terms, representations and warranties, covenants and conditions of the ML Credit Agreement and each of the other ML Project Finance Documents to be performed or complied with by the Borrower at or prior to the date thereof have been performed or complied with;
- 2. I have taken cognizance and reviewed the transactions, operations and status of business of the Borrower, since the Closing Date and all conditions and requirements of the ML Credit Agreement and of the other ML Project Finance Documents and of all other deeds or agreements governing the borrowings of the Borrower, have been accomplished and satisfied and I do not know of the existence, as of the date hereof, of a condition or of any fact whatsoever, constituting a ML Event of Default that is continuing.

- 3. to my Knowledge, except as otherwise disclosed to the Collateral Agent in writing, the representations and warranties set forth in Article 9 of the ML Credit Agreement are still true and correct in all material respects as of the date of this certificate (except in the case of representations stated to be as of a specific date) with the same force and effect as if made at and as of such date;
- 4. The information and the Financial Statements attached hereto for the fiscal quarter ended September 30, 2018 (the "Quarter") are complete and correct in all material respects and present fairly, in accordance with GAAP, the unconsolidated or consolidated, as the case may be, financial position of the Borrower as at the end of such Quarter, subject only to normal year-end auditing adjustments, or as at the end of such Year, as the case may be;
- 5. As at September 30, 2018, being the last day of the Quarter immediately preceding the date of this certificate, the Retrospective DSCR, calculated on a rolling twelve (12) month period, was <u>2.93</u>, and is calculated as follows¹:
 - (i) the Base Cash Flow of the Borrower for the period of the most recently completed twelve (12) calendar months:

(line (a) + line (b) – line (c)):		CDN\$	64,252,813
(a)	ML Project Revenues	CDN\$	70,967,422
(b)	Liquidity Reserves	CDN\$	0
(c)	Cash Operating Costs	CDN\$	6,714,609

(ii) The Total Debt Service for the period of the most recently completed twelve (12) calendar months: CDN\$ 21,912,762

Retrospective DSCR = (i) \div (ii) = 2.93

¹ When calculating the Retrospective DSCR prior to the completion of twelve (12) full calendar months commencing after the Commissioning Date, the completed months that commenced after such date and ended on or prior to the date of calculation are to be taken into account and the Retrospective DSCR will be calculated on an annualized basis with such months

- - (i) The Base Cash Flow of the Borrower for the period of the twelve (12) calendar months immediately following the date of this certificate

(line (a) + line (b) - line (c)):		CDN\$ 82,200,000
(a)	ML Project Revenues	CDN\$ 103,500,000
(b)	Liquidity Reserves	CDN\$ 0
(c)	Cash Operating Costs	CDN\$ 21,300,000

(ii) The Total Debt Service for such period: CDN\$ 45,500,000

Prospective DSCR = (i) \div (ii) = 1.81

Signed at Halifax, Nova Scotia, this 29th day of November, 2018.

Name:

Brian Rendell

Title:

Vice President, Finance & Commercial,

NSP Maritime Link Incorporated

SCHEDULE "R"

ML COMPLIANCE CERTIFICATE

Date: April 30, 2019

The Toronto-Dominion Bank

as Collateral Agent
TD Bank Tower
66 Wellington Street West
9th Floor
Toronto, Ontario M5K 1A2

We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

This certificate is delivered to you pursuant to subsection 11.2.2 of the ML Credit Agreement.

I, Brian Rendell, the Vice President, Finance & Commercial of the Borrower, in my capacity as an officer of the Borrower and without personal liability, do hereby certify that:

- 1. I have taken cognizance of the ML Credit Agreement and each of the other ML Project Finance Documents, and all of the terms, representations and warranties, covenants and conditions of the ML Credit Agreement and each of the other ML Project Finance Documents to be performed or complied with by the Borrower at or prior to the date thereof have been performed or complied with;
- 2. I have taken cognizance and reviewed the transactions, operations and status of business of the Borrower, since the Closing Date and all conditions and requirements of the ML Credit Agreement and of the other ML Project Finance Documents and of all other deeds or agreements governing the borrowings of the Borrower, have been accomplished and satisfied and I do not know of the existence, as of the date hereof, of a condition or of any fact whatsoever, constituting a ML Event of Default that is continuing.

- 3. To my Knowledge, except as otherwise disclosed to the Collateral Agent in writing, the representations and warranties set forth in Article 9 of the ML Credit Agreement are still true and correct in all material respects as of the date of this certificate (except in the case of representations stated to be as of a specific date) with the same force and effect as if made at and as of such date;
- 4. Pursuant to Article 11.2 of the ML Credit Agreement, the information and the audited consolidated Financial Statements attached hereto for the fiscal year ended December 31, 2018 (the "Year") are complete and correct in all material respects and present fairly, in accordance with GAAP, the unconsolidated or consolidated, as the case may be, financial position of the Borrower as at the end of such Quarter, subject only to normal year-end auditing adjustments, or as at the end of such Year, as the case may be;
- 5. As at December 31, 2018, being the last day of the relevant rolling twelve (12) month period as contemplated in Article 11.2, the Retrospective DSCR, calculated on a rolling twelve (12) month period, was 1.82, and is calculated as follows¹:
 - (i) the Base Cash Flow of the Borrower for the period of the most recently completed twelve (12) calendar months:

 (line (a) + line (b) – line (c)):
 CDN\$ 82,782,090

 (a) ML Project Revenues
 CDN\$ 95,842,370

 (b) Liquidity Reserves
 CDN\$ 0

 (c) Cash Operating Costs
 CDN\$ 13,060,280

(ii) The Total Debt Service for the period of the most recently completed twelve (12) calendar months: CDN\$ 45,500,000

Retrospective DSCR = (i) \div (ii) = 1.82

¹ When calculating the Retrospective DSCR prior to the completion of twelve (12) full calendar months commencing after the Commissioning Date, the completed months that commenced after such date and ended on or prior to the date of calculation are to be taken into account and the Retrospective DSCR will be calculated on an annualized basis with such months

- 6. As at December 31, 2018, being the last day of the relevant rolling twelve (12) month period as contemplated in Article 11.2, the Prospective DSCR was <u>1.85</u>, and is calculated as follows:
 - (i) The Base Cash Flow of the Borrower for the period of the twelve (12) calendar months immediately following the date of this certificate

(line	(a) $+$ line (b) $-$ line (c)):	CDN\$ 84,013,872
(a)	ML Project Revenues	CDN\$ 103,113,872
(b)	Liquidity Reserves	CDN\$ 0
(c)	Cash Operating Costs	CDN\$ 19,100,000

(ii) The Total Debt Service for such period: <u>CDN\$ 45,500,000</u>

Prospective DSCR = (i) \div (ii) = 1.85

Signed at Halifax, Nova Scotia, this 30 day of April, 2019.

Name:

Brian Rendell

Title:

Vice President, Finance & Commercial,

NSP Maritime Link Incorporated

SCHEDULE "R"

ML COMPLIANCE CERTIFICATE

Date:	May 30, 2019	
Daic.	1V1ay 30, 2017	

The Toronto-Dominion Bank as Collateral Agent TD Bank Tower 66 Wellington Street West 9th Floor Toronto, Ontario M5K 1A2

We refer you to the credit agreement dated February 24, 2014, between NSP Maritime Link Incorporated (the "Borrower"), Maritime Link Financing Trust (the "Lender") and The Toronto-Dominion Bank (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").

Unless otherwise defined herein or unless there be something in the subject or the context inconsistent therewith, all capitalized terms and expressions used herein shall have the same meaning as that ascribed to them from time to time in Exhibit A of the ML Credit Agreement.

This certificate is delivered to you pursuant to subsection 11.1.2 of the ML Credit Agreement.

I, Brian Rendell, the Vice President, Finance & Commercial of the Borrower, in my capacity as an officer of the Borrower and without personal liability, do hereby certify that:

- 1. I have taken cognizance of the ML Credit Agreement and each of the other ML Project Finance Documents, and all of the terms, representations and warranties, covenants and conditions of the ML Credit Agreement and each of the other ML Project Finance Documents to be performed or complied with by the Borrower at or prior to the date thereof have been performed or complied with;
- 2. I have taken cognizance and reviewed the transactions, operations and status of business of the Borrower, since the Closing Date and all conditions and requirements of the ML Credit Agreement and of the other ML Project Finance Documents and of all other deeds or agreements governing the borrowings of the Borrower, have been accomplished and satisfied and I do not know of the existence, as of the date hereof, of a condition or of any fact whatsoever, constituting a ML Event of Default that is continuing.

- 3. To my Knowledge, except as otherwise disclosed to the Collateral Agent in writing, the representations and warranties set forth in Article 9 of the ML Credit Agreement are still true and correct in all material respects as of the date of this certificate (except in the case of representations stated to be as of a specific date) with the same force and effect as if made at and as of such date;
- 4. Pursuant to Article 11.1 of the ML Credit Agreement, the information and the unaudited consolidated Financial Statements attached hereto for the fiscal quarter ended March 31, 2019 (the "Quarter") are complete and correct in all material respects and present fairly, in accordance with GAAP, the unconsolidated or consolidated, as the case may be, financial position of the Borrower as at the end of such Quarter, subject only to normal year-end auditing adjustments, or as at the end of such Year, as the case may be;
- 5. As at March 31, 2019, being the last day of the relevant rolling twelve (12) month period as contemplated in Article 11.1, the Retrospective DSCR, calculated on a rolling twelve (12) month period, was 1.87, and is calculated as follows:
 - (i) the Base Cash Flow of the Borrower for the period of the most recently completed twelve (12) calendar months:

(line	(a) + line (b) – line (c)):	CDN\$	85,089,655
(a)	ML Project Revenues	CDN\$	99,999,790
(b)	Liquidity Reserves	CDN\$	0
(c)	Cash Operating Costs	CDN\$	14,910,135

(ii) The Total Debt Service for the period of the most recently completed twelve (12) calendar months: CDN\$ 45,500,000

Retrospective DSCR = (i) \div (ii) = 1.87

- 6. As at March 31, 2019, being the last day of the relevant rolling twelve (12) month period as contemplated in Article 11.1, the Prospective DSCR was 1.85, and is calculated as follows:
 - (i) The Base Cash Flow of the Borrower for the period of the twelve (12) calendar months immediately following the date of this certificate

(line	(a) + line (b) – line (c)):	CDN\$ 84,273,678
(a)	ML Project Revenues	CDN\$ 104,013,925
(b)	Liquidity Reserves	CDN\$ 0
(c)	Cash Operating Costs	CDN\$ 19.740.247

(ii) The Total Debt Service for such period: CDN\$ 45,500,000

Prospective DSCR = (i) \div (ii) = 1.85

Signed at Halifax, Nova Scotia, this 30 day of May, 2019.

Name:

Brian Rendell

Title:

Vice President, Finance & Commercial,

NSP Maritime Link Incorporated

NSPML 2020 Interim Assessment Application (NSUARB M09277) NSPML Responses to NSUARB Information Requests

NON-CONFIDENTIAL

1 Request IR-10:

2

- 3 Exhibit N-1, p. 17, line 14 and Footnote 30
- 4 NSPML indicates it has incurred deferred financing charges of approximately \$50.1 million
- 5 compared to the amount previously forecasted in matter M07718 to be approximately \$55
- 6 million. Please provide a detailed breakdown of your forecasted deferred financing charges
- 7 and the reasons for the reduced forecast from \$55 million to \$50.1 million.

8

9 Response IR-10:

10

- 11 The table below depicts the deferred financing charges budget which was used in the 2017
- 12 Interim Cost Assessment Application (M07718) as compared to the costs known as of the date of
- this filing.

14

	Original	
Deferred Financing Charges	Project Budget	Actual Costs
	(\$)	(\$)
Bond Hedge	36,279,509	36,279,509
Underwriting Fees	4,593,333	4,593,333
Bond Discount	559,000	559,000
Legal & Financial Advisory	5,500,000	4,737,750
Independent Engineer & Insurance Consultant	5,650,000	2,062,550
Credit Rating Agency, Issuer Trustee, Admin, and Other	2,572,500	1,898,038
Total	55,154,343	50,130,180

15 16

Certain of the costs are less than previously forecasted due to lower advisory services required as compared to originally forecasted.

18

17

19 20

21

22

23

NSPML 2020 Interim Assessment Application (NSUARB M09277) NSPML Responses to NSUARB Information Requests

NON-CONFIDENTIAL

1	Requ	nest IR-11:
2		
3	Exhi	bit N-1, p. 19, lines 7-9
4	NSP	ML states that Nalcor now projects completion of the third unit of the Muskrat Falls
5	Gene	erating Station to be one month earlier than originally forecast at the time of the 2017
6	inter	im assessment proceeding (i.e., May 2020 rather than June 2020).
7		
8	(a)	Please provide a copy of the Muskrat Falls Project Oversight Committee, Quarterly
9		Project Update – Period Ending December 31, 2018.
10		
11	(b)	Please provide a copy of any more recent Muskrat Falls updates.
12 13	(c)	When is the next update expected from Nalcor with respect to completion of the third
14	(C)	unit at Muskrat Falls?
15		umt at Muski at Pans.
16	(d)	During recent proceedings at the Muskrat Falls Inquiry in Newfoundland and
17	()	Labrador, testimony from Nalcor CEO Stan Marshall (July 2, 2019) and VP Gilbert
18		Bennett (June 26, 2019) has identified a potential risk in the timeline for the
19		transmission of power from Muskrat Falls. The issue relates to the delivery of
20		software by GE Grid Solutions, which is critical to the High Voltage Direct Current
21		system. Has Nalcor advised NSPML of this potential risk in its above noted updates?
22		Does this issue pose a risk to the timeline for the delivery of the NS Block?
23		
24	Resp	onse IR-11:
25		
26	(a)	Please refer to Attachment 1.
27		
28	(b)	Please refer to Attachment 2 for the most recent Oversight Committee Report, and
29		Attachments 3, 4, 5, 6 and 7 for the most recent Nalcor monthly benefits reports.

Date Filed: August 1, 2019

NSPML 2020 Interim Assessment Application (NSUARB M09277) NSPML Responses to NSUARB Information Requests

NON-CONFIDENTIAL

1		
2	(c)	The Oversight Committee Reports are published quarterly. The last Oversight Committee
3		Report (for Q1, 2019) was published on June 27, 2019. NSPML expects the next Oversight
4		Committee Report will be published at the end of September 2019. Additionally, NSPML
5		expects Nalcor will publish its next monthly benefits report in late August. NSPML is not
6		aware of any other upcoming reports from Nalcor.
7		
8	(d)	Yes, Nalcor has been advising NSPML of identified risks associated with the Labrador-
9		Island Transmission Link including during Joint Operating Committee (JOC) meetings.
10		Nalcor has advised NSPML that it is taking steps to maintain schedule and mitigate the
11		risk of schedule delay to preserve the current timeline for delivery of the NS Block.
12		



Muskrat Falls Project Oversight Committee

Quarterly Project Update

Period Ending December 31, 2018

Table of Contents

- 1. Q4 2018 Cumulative Project Progress
- 2. Performance Summaries
- 3. Oversight Committee Reporting
- 4. Nalcor Reporting

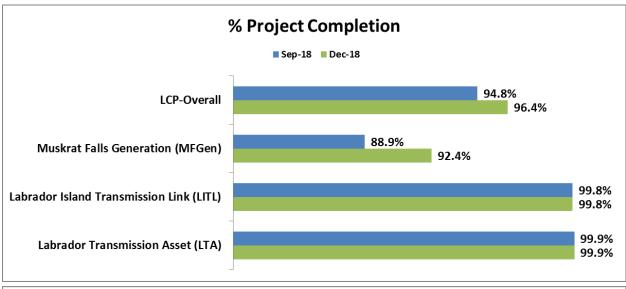
Annex A - Project Capital Budget and Project Milestone Schedule

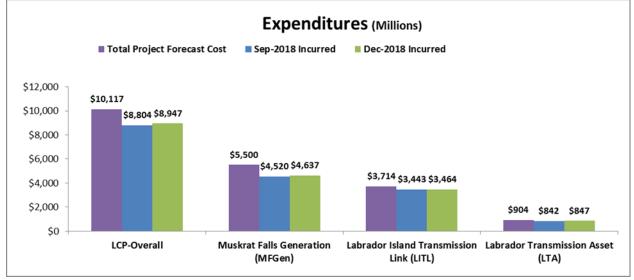
Annex B - Project Expenditures

Annex C - Earned Progress

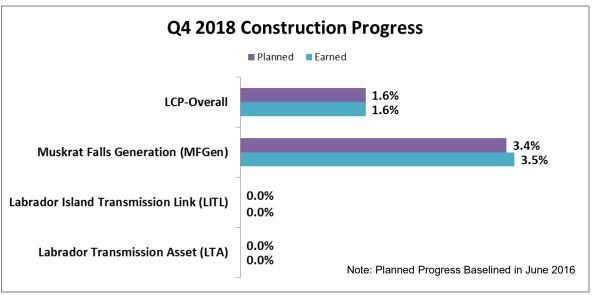
Annex D - Project Milestone Schedule Forecast

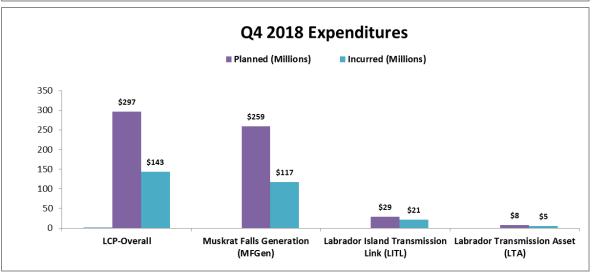
1. Q4 2018 Cumulative Project Progress



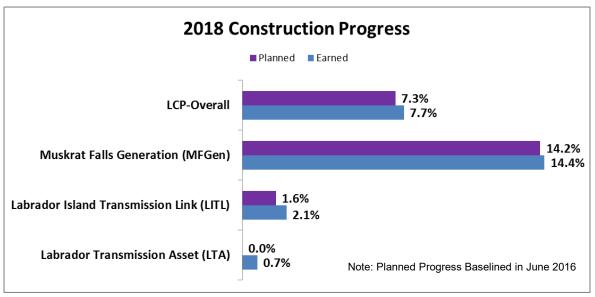


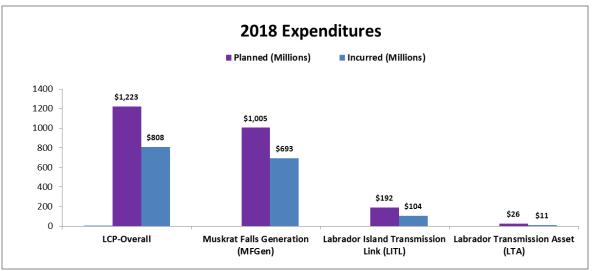
2. Q4 2018 Performance Summary





3. 2018 Performance Summary





2. 2018 Performance Summary - Power Development

Activity	Status
 Powerhouse and Intake Turbine and Generator (T&G) embedment phase 	Complete ¹
 All mass concrete placed Unit 1 T&G assembly and installation 	Complete ¹
 commenced Balance of Plant installation Intake gates – Units 1 and 2 installed 	50% complete - commissioning ongoing 85 % complete
 Powerhouse 	90% construction complete
Tailrace	Five transformers installed in tail race deck - Tailrace channel excavated and watered up
North Dam	Concrete placement program finished and North Dam 99% complete
Spillway/Gates	Rollways installed in 2 of 5 spillway bays 91 % construction complete
Impoundment	Expedited work ongoing for water tight Intake in Q1 2019 and spillway readiness in Q2 2019

The project remains on budget and on schedule with the June 2017 budget.

2. 2018 Performance Summary - Power Supply

Activity	Status
Straight of Belle Isle (SOBI)	Complete ¹
Labrador Transmission Asset (LTA)	Complete ¹
Labrador – Island Transmission Link (LITL) Overhead Transmission Line	Complete ¹
 HVdc Specialties Winter power transfer on a daily basis commenced in December 2018 	Commissioning and energization ongoing

The project remains on budget and on schedule with the June 2017 budget.



3.0 Oversight Committee Reporting

- 3.1 Overview
- 3.2 Committee Activities
- 3.3 Independent Engineer Activities
- 3.4 Risks and Issues Being Monitored by the Committee
- 3.5 Power Supply Project Milestone Schedule
- 3.6 Subsequent Events to Q4

3.1 Overview

- The Oversight Committee (Committee) receives details on project costs incurred, schedule progress, changes in costs and milestone schedule and the status of construction, manufacturing and installation contracts.
- The Committee identifies risks and issues and follows up with Nalcor to obtain more detail and explanation.
- This report covers the October 2018 to December 2018 period (Q4) and includes information on notable project activity up to the date of release of this report. It also includes summary information for the 2018 construction year.
- Section 3 of this report contains information developed by the Committee.
 Section 4 contains project cost and schedule information provided by Nalcor.
 The Annexes contain a more detailed accounting of the information provided in this report.
- The next Committee Report will cover the period January 2019 March 2019.

3.2 Committee Activities

- The Committee met on two occasions during the period to receive project updates and conduct other Committee business. Committee meeting minutes and reports are available on the Committee website @ Click here and Click here.
- The Committee Executive Director participated in the Independent Engineer (IE) and Natural Resources Canada (NRCan) Project Site Visits and Meetings between October 30 – November 2, 2018. These sessions included various meetings and a summary session along with site visits to Muskrat Falls and Soldiers Pond.
- Further to the October 30 November 2 Project Site Visit and Meetings, the Committee Executive Director and Committee Chair also participated as an observer in one monthly call each on Nalcor project reporting to the IE and NRCan.
- The Committee Executive Director and Chair participated in two calls with the IE and NRCan to review Nalcor monthly project reporting and follow up on the IE's technical visit during the quarter.
- The Committee Executive Director and Chair also participated in a call with Nalcor to specifically discuss the ongoing Litigation/Arbitration between Nalcor and Astaldi and civil works restart with Pennecon Energy (Pennecon).

3.2 Committee Activities

- The Committee Executive Director and Chair met with Newfoundland and Labrador Hydro (NLH) to discuss project integration and operations. NLH reports positive progress, power was flowing across the LITL and that discussions between NLH and Nalcor were ongoing regarding LITL commissioning status and operations and maintenance costs.
- The Committee Executive Director and Chair reviewed Westney Consulting Quantitative Risk Assessments (QRA's) at Nalcor offices. The report was subsequently made available to the Committee.
- The Committee notes that as of December 2018, Power Supply project schedule milestone planned dates have changed compared to planned dates in the June 2017 budget including:
 - The Soldiers Pond Synchronous Condenser Ready for Operation; and
 - The Muskrat Falls and Soldiers Pond Converter Stations Bi-pole Dynamic Testing Complete.
- These forecast dates are now approaching various MFGen milestone schedule dates in the June 2017 budget.
- The Committee requested an explanation of these variances and how these date changes do not impact the overall project schedule. Nalcor's response can be found on page 19 of this report.

3.3 Independent Engineer Activities

- In November 2018, the IE visited the Andritz manufacturing facility in Chambly, QC where the Protection & Controls equipment and software for the MFGen plant is being developed and built. Following IE release of the report, the Committee will post it to the website for reference.
- In December 3-6, 2018 the IE held technical meetings in Nalcor St. John's offices with project teams.
- On December 19, 2018, the IE issued the LCP Project Site Visit and Meeting Report. Report highlights included:

Power Development

- MFGen work is progressing well and is on schedule;
- Possible delays to powerhouse pit free milestones due to the Astaldi situation are not expected to negatively impact the schedule for First Power and that risk of impact to the overall project schedule is being evaluated.

Power Supply

- Lubricating oil contamination was found in synchronous condensers at Soldiers Pond and root cause analysis was ongoing;
- Reported delays in the HVdc transmission system Protection and Control software development; commercial discussions with GE were ongoing; Bi-pole software was expected by end of 2019; and GE's progress reports were not consolidated enough to clearly indicate the project risks.
- The full report can be found on the Committees website @ Click here.

- In its project reporting, Nalcor identifies risks which may impact project cost and schedule. The Committee reviews these and other project information to assess project risks. This risks can be found on pages 15-18 of this report.
- Over the reporting period the Committee noted:
 - North Dam concrete placement is finished and mass concrete placement is complete;
 - North Dam foundation grouting and watering up between the cofferdam and North Dam has occurred;
 - Reservoir rim stability remained consistent over the Quarter and reservoir ice cover was achieved;
 - A Limited Notice To Proceed (LNTP) was issued in December to Pennecon to complete critical path powerhouse work following the October 2018 stop work order and termination of contract with Astaldi; the full contract for the remain scope of work was concluded in February 2019;
 - In January 2019, the Arbitration panel has removed the injunction filed by Astaldi on the Advance Payment and Performance Letters of Credit under the Astaldi contract;
 - Further Litigation and Arbitration proceedings are ongoing;
 - Astaldi is claiming up to \$800 million in damages and Nalcor is preparing a counter claim;

- Over the reporting period the Committee noted:
 - There is a new version Protection and Control (P&C) software for the HVdc system; there are no plans to install during the 2018/19 winter period; P&C software completion remains a key project risk;
 - The root cause of lube oil contamination in the Soldiers Pond synchronous condensers has been determined and remediation work continues as part of ongoing commissioning; and
 - Nalcor/NLH preparedness for interconnection and operations following Pole 1 transfer of power period and completion of Bi-pole remains a key focus area.

- The project is now largely in the installation, integration and static and dynamic commissioning phases which inherently carry associated risks.
- Risks that are being tracked by the Committee include:
 - A) Safety Performance
 - Risk associated with simultaneous operations across multiple work sites, impact on project delivery particularly in the powerhouse, energized yards and other assets. This risk will continue through construction into operations.
 - B) Contractor Management and Productivity
 - Nalcor ability to manage contractors and contractor ability to meet schedule;
 - Contractor management and performance in the powerhouse;
 - Potential commercial negotiations to settle claims; and
 - Potential for new claims as construction nears completion.

C) Phased Commissioning

- Completion of Protection and Controls system to enhance functionality and reliability; associated warranty considerations with early asset handover during Pole 1 commissioning and completion;
- · Continued milestone changes;
- Final completion and testing of HVdc system under partial and full power, in-service system reliability, and timing of contractor release and effective warranty period; and
- Reliability of system during the winter period.

D) Astaldi

- Resumption of powerhouse and spillway work by Pennecon
- Impact on other contractors;
- Astaldi Litigation/Arbitration outcomes; and
- Impact on project costs and schedule.

E) Synchronous Condensers

 Remediation of lube oil contamination and impact on milestone and overall project schedule for this activity.

F) Insurance Claims and Coverage

- Claims ongoing: Synchronous condensers investigations ongoing;
- Recently settled claims: Draft Tube 2 form work failure final payment received; MFGen cofferdam repairs and berm protection – final payment received; Water ingress in section of LITL sub-sea cable final payment remains pending; and
- Potential coverage: Preservation/re-preservation of Turbine and Generator parts - investigations ongoing; Powerhouse crane rail issues - investigations ongoing.

G) Cofferdam Performance

 Risk reducing as North Dam foundation grouting program is now complete and watering up between the upstream cofferdam and North Dam has occurred.

H) Reservoir Rim Stability

 Impact of changing water levels during interim impoundment on reservoir shoreline/slope stability.

- I) Project Integration and Operations Readiness
 - Nalcor/NLH readiness to connect the Muskrat Falls Project to the Island and North American electricity grid and operate facilities effectively.
- J) Project Delivery Team Retention
 - Project Team personnel departures and potential impact on project completion; and
 - Departures continued to occur over the Quarter.
- K) Additional Risks (Strategic Risks)
 - Protest unrest;
 - Commission of Inquiry respecting the Muskrat Falls Project;
 - Independent Expert Advisory Committee (IEAC) recommendations;
 and
 - Other unforeseen directives from Government.
 - Funds are not held within the June 2017 Project Budget for these risks.
 - Potential impact on cost and schedule.

3.5 Power Supply Project Milestone Schedule

- The Project critical path is determined by the requirement for "Maximum Permitted Load Testing" which has three criteria: 1) three generating units, 2) fully functional HVdc Bi-pole power, and 3) at least two Synchronous Condensers.
- The Generation critical path is based on the Powerhouse commissioning dates, of which
 the three generating units must be complete for Maximum Permitted Load Testing. As of
 December 2018, this forecast completion date is May 2020.
- The Labrador-Island Link critical path is the Power Transmission Bi-Pole Dynamic Commissioning. The December 2018 forecast completion date for this activity is now February 2020, followed by a 60 day window to complete the trial run period ending in April 2020, which is one month in advance of the generation 3 project milestone planned date in the June 2017 Budget. Bi-Pole Dynamic Commissioning schedule changes have been primarily due to P&C software development delays. Full functionality of the Bi-pole software continues to be a risk.
- The Soldiers Pond Synchronous Condensers are not on the Project or Labrador-Island Link critical paths. Only the first two units are required for Maximum Permitted Load Testing. The December 2018 forecast completion date for all three units is now September 2019, with two units being available August 2019. Schedule change on this activity has been primarily due to lube oil system contamination during initial commissioning, and associated repairs.
- While there have been schedule milestone changes for the activities noted above, the overall Project remains on track with the June 2017 budget and schedule.

3.6 Subsequent Events to Q4

- On January 30, 2019 the Astaldi Litigation/Arbitration panel removed the Injunction on the Advance Payment and Performance Letters of Credit under the Astaldi Contract. The arbitration of the Astaldi claim for damages are ongoing.
- In February 2019, Nalcor finalized a completion contract with Pennecon for required powerhouse and spillway work.
- In February 2019, a new amending agreement was finalized with GE Grid for the completion of P&C software for the HVdc system.
- On February 1, 2018 Paul Carter, Executive Director of the Committee was appointed as Chair.
- Since February 5, 2019, power transfer on the LITL has been restricted due to an issue with Protection and Controls (P&C) software functionality.
- On February 15, 2019 Jim Haynes, formerly of Newfoundland and Labrador Hydro was appointed as Executive Vice President, Power Supply, Nalcor Energy.
- Nalcor's 2019 Annual General Meeting is scheduled for April 9, 2019. Further details can be found on the Nalcor website @ <u>Click here</u>.



4.0 Nalcor Reporting

- 4.1 Summary Quarter Ending December 2018
- 4.2 Project Expenditures
- 4.3 Contingency
- 4.4 Earned Progress

- December 2018 Summary:
 - Overall construction progress is at 96.4%;
 - \$8,947 Million in incurred costs; and
 - \$9,379 Million in committed costs.
- Overall the project is tracking in compliance with the June 2017 budget and schedule.
- As of December 2018, the June 2017 budget final forecast cost remains unchanged.
 - While the overall budget and final forecast cost remains unchanged, variances between the project budget and final forecast costs have occurred within and among expenditure categories. Most variances are related to the transfer of budget between allocations from the contingency budget to the procurement and construction budget.
 - Does not include costs for Additional Risks as reported in the September 2018, Q3 Committee Report (\$170-370 Million), or any new potential cost risk associated with the Astaldi claim (See page 28 for further details).
- The current forecast contingency budget at December 2018 is \$110.1 Million, a decrease of \$69.8 Million from the previous Quarter. For further detail see Section 4.3.

Quarterly Planned vs Incurred Cost Variances:

MFGen	
Cumulative Planned: \$4,912M	Q4 2018 Planned: \$259M
Cumulative Incurred: \$4,637M	Q4 2018 Incurred: \$117M
Variance: -\$275M (-5.6%)	Variance: -\$142M (-54.8%)

- Planned expenditure by month was set in June 2017.
- During Q4 2018, the variance in planned vs. incurred cost is primarily due to the termination of the contract for the Construction of the Intake, Powerhouse Spillway and Transition Dam (CH0007).
- See Section 4.2 and Appendix B for further detail.

Quarterly Planned vs Incurred Cost Variances:

LITL	
Cumulative Planned: \$3,670M	Q4 2018 Planned: \$29M
Cumulative Incurred: \$3,464M	Q4 2018 Incurred: \$21M
Variance: -\$206M (-5.6%)	Variance: -\$8M (-27.5%)
LTA	
LTA Cumulative Planned: \$904M	Q4 2018 Planned: \$8M
	Q4 2018 Planned: \$8M Q4 2018 Incurred: \$5M

- The planned expenditure by month was set in June of 2017.
- During Q4 2018, contingency and package growth allowance was utilized at a slower rate than estimated. The slower rate of utilization is directly linked to the pace of progress on current contractor claims resolution.
- See Section 4.2 and Appendix B for further detail.

Planned vs Earned Progress:

- MFGen
 - Cumulative progress as of end Q4 2018 was 92.4% vs. a plan of 93.3% (variance of -0.9%). Quarterly progress for Q4 2018 was 3.5% vs. a plan of 3.4% (variance of 0.1%).
 - During the Quarter, the cumulative variance was reduced from 1.0% behind plan to 0.9% behind plan. This was due to greater than planned progress in both the North Dam and the Spillway and Gates (completion of first 2 rollways) scopes of work. The current cumulative variance is entirely within the work area of the Spillway and Gates.
 - As noted in the Q2 and Q3 reports, over the past 2 years the planned timing of installation of the rollways has changed. The first two rollways were completed in 2018. The third was planned for 2018; however was not completed due to the termination of the Astaldi contract. The last 3 are planned for installation in 2019. Due to these changes, it is expected that the Spillway & Gates will continue to trend behind the baseline progress set in mid-2016 until the scope is complete.
- LTA/LITL
 - > 99% complete.
- See Section 4.2 and Appendix C for further detail.

Power Development:

- The project remains on budget and on schedule with the June 2017 budget;
- Spillway and gates are 91% complete;
- Powerhouse is (95% complete)
 - Hydro-mechanical and turbine and generator (T&G) embedment work is complete; Balance of Plant (BOP) work is ongoing and is at 50% complete with commissioning commenced; BOP engineering and long lead procurement items are substantially complete;
 - A Limited Notice to Proceed (LTP) issued to Astaldi replacement contractor Pennecon in December 2018 for critical path work in the powerhouse;
 - Preparations were underway for Intake 2 (Bays 4,5,6) point and patch concrete scope;
 - Unit 1 Pit Free; and
 - Construction activities will continue to increase throughout Q1 with Pennecon mobilization.

Hydro Mechanical Installation

- Gates and hoists installed in Bays 1-7; Secondary concrete installed in Bays1-10.
 Embedment work ongoing in Bays 1-12, Intake hoist electrical ongoing in Units 1 and 2;
- Mechanical completion, static and dynamic commissioning ongoing on Intake Gates;
- Post rollway mechanical completion and static commissioning ongoing in Bays 1and
 5; and
- On track for upstream water tight readiness for Q1 2019.

Turbines and Generators

- T&G preservation work remains ongoing; shelter for T&G components is completed;
 and
- Stator bar and protection and control panel manufacturing ongoing; Unit 1 stator frame alignment complete; rotor, runner and bottom ring assembly ongoing.

North and South Dams (99% complete)

 Grout curtain, tailrace rock plug drilling and blasting, tailrace water channel water-up and disassembly of spillway bridge complete; and completion of drainage holes is ongoing.

Spillway Rollway Construction

• Rollways 1 and 5 completed in October 2018; 2, 3, and 4 to be completed next season.

- On January 30, 2019 the Astaldi Litigation/Arbitration Panel removed the Injunction on the Advance Payment and Performance Letters of Credit under the Astaldi Contract. In total \$184 Million was received.
- With these funds, Nalcor finalized a completion contract with Pennecon for remaining work to be completed under CH0007 and is settling CH0007 Liens by prioritizing payments to critical contractors for civil work completion.
- The Litigation/Arbitration of other matters related to the Astaldi claim for damages and other securities and Liens under the CH0007 contact remains ongoing.
- Astaldi has claimed up to \$800 Million in damages and Nalcor is preparing a counter claim.
 - Funds are not held with the current June 2017 budget should net damages be awarded in Astaldi's favour.
- Focus areas for Q1 2019 include: schedule optimization; execution of remaining powerhouse work and water tight.
- The forecast expenditure for the Q1 2019 is estimated at approximately \$252.3
 Million.

Power Supply:

- The project remains on budget and on schedule with the June 2017 budget;
- Strait of Belle Isle (SOBI) (complete)
 - Construction complete, commercially closed and insurance claim resolved;
 - Assets energized and all 3 cables accepted; and
 - Turnover to operations.
- Overland Transmission Assets (LITL and LTA)
 - Construction complete, and insurance claim resolved;
 - Assets energized;
 - Initial power flow received; and
 - Commissioning and testing ongoing.
- HVdc Specialties (Muskrat Falls and Soldiers Pond)
 - Construction complete for Pole 1;
 - Pole1 assets energized; and
 - Commissioning and testing ongoing.

HVdc Power Transfer

- Pole1 daily power transfer of Recall Power from Churchill Falls to the Island commenced in December 2018 and is ongoing;
- Availability in the first 20 days was 99.1% and 99.8 in the first 30 days; and
- At peak 150 Megawatts was transferred from Churchill Falls; and
- since February 5, 2019 power transfer levels have been fluctuating at restricted rates between 45-100 Megawatts due to an issue with P&C software. Investigation into the issue is ongoing.

Protection and Controls (P&C)

- Development and delivery of final Pole 1 and Bi-pole software is the largest outstanding risk for Power Supply;
- Work to support dynamic commissioning/power transfer is ongoing at site;
- Software development is focused on reliability, functionality and completion;
- Pole 2 final construction and commissioning is ongoing;
- Nalcor staff are on a continual rotation at the P&C software development site providing technical support and oversight; and
- An Amending Agreement (Agreement) with GE Grid has been finalized which
 resolves all commercial issues to the end of 2018 and establishes Bi-pole
 deliverables for completion in 2019. The Agreement will use third parties to
 validate progress, functionality and completion deliverables under the contract.
 Costs for the Agreement are held within the June 2017 budget.

- Synchronous Condensers
 - Root cause of the lube oil contamination issue and has been determined and remediation and repair work is ongoing. The three units are now scheduled to be commissioned by end of Q3 2019.
- The focus for Q1, 2019 remains on continued completions, commissioning and integration of operations; and
- The forecast expenditure for Q1, 2019 is estimated at approximately \$92.7
 Million.

4.2 Project Expenditures

	Project	Cumulative \$			Cumulative %		
	Budget June						
December 2018 (\$000)	2017 AFE	Plan	Incurred	Variance	Plan	Incurred	Variance
Description	Α	В	С	C-B	D=B/A	E=C/A	E-D
NE-LCP Owners Team, Admin and EPCM							
Services	\$1,115,235	\$1,000,604	\$950,204	(\$50,400)	89.7%	85.2%	-4.5%
Feasibility Engineering	\$37,072	\$37,072	\$35,894	(\$1,178)	100.0%	96.8%	-3.2%
Environmental & Regulatory Compliance	\$42,669	\$41,192	\$38,410	(\$2,782)	96.5%	90.0%	-6.5%
Aboriginal Affairs	\$17,478	\$14,527	\$18,413	\$3,886	83.1%	105.3%	22.2%
Procurement & Construction	\$8,475,290	\$8,323,681	\$7,837,648	(\$486,033)	98.2%	92.5%	-5.7%
Commercial & Legal	\$90,423	\$68,652	\$66,872	(\$1,780)	75.9%	74.0%	-2.0%
Contingency	\$339,162	\$0	\$0	\$0	0.0%	0.0%	0.0%
TOTAL	\$10,117,328	\$9,485,727	\$8,947,442	(\$538,285)	93.8%	88.4%	-5.3%

December 2018 (\$000)	Project Budget June 2017 AFE	Incurred Cumulative Costs December 2018	Project Final Forecast Cost December 2018	Variance PFC from Budget
Description	Α	В	С	D=A-C
NE-LCP Owners Team, Admin and EPCM Services	\$1,115,235	\$950,204	\$1,155,945	(\$40,710)
Feasibility Engineering	\$37,072	\$35,894	\$35,894	\$1,178
Environmental & Regulatory Compliance	\$42,699	\$38,410	\$43,409	(\$740)
Aboriginal Affairs	\$17,478	\$18,413	\$31,451	(\$13,973)
Procurement & Construction	\$8,475,290	\$7,837,648	\$8,640,351	(\$165,061)
Commercial & Legal	\$90,423	\$66,872	\$100,228	(\$9,805)
Contingency	\$339,162	\$0	\$110,051	\$229,111
TOTAL	\$10,117,328	\$8,947,442	\$10,117,328	\$0

4.3 Contingency

			Project	Project		
		March 2018	Forecast Cost	Forecast Cost	Change from	
	Project Budget	AFE	September	December	Previous	Variance PFC
Q4 December 2018 (\$000)	June 2017 AFE	Adjustment	2018	2018	Quarter	from Budget
	Α	-	В	С	C - B	C - A
Total Proiect	\$339,162	\$339,162	\$179,893	\$110,051	(\$69,842)	(\$229,111)

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4.4 Earned Progress

	Weight	December	September		
Cumulative to end of December 2018	Factor %	<u>Planned</u>	<u>Earned</u>	<u>Variance</u>	2018 Variance
Sub-Project	Α	В	С	D = C - B	E
Muskrat Falls Generation (MFGen)	46.3%	93.3%	92.4%	-0.9%	-1.0%
Labrador Island Transmission Link (LITL)	43.9%	100.0%	99.8%	-0.2%	-0.2%
Labrador Transmission Asset (LTA)	9.8%	100.0%	99.9%	-0.1%	-0.1%
Muskrat Falls Project - Overall	100.0%	96.9%	96.4%	-0.5%	-0.5%

	Weight	Period %		
December 2018 Period	Factor %	<u>Planned</u>	<u>Earned</u>	<u>Variance</u>
Sub-Project	Α	В	С	D = C - B
Muskrat Falls Generation (MFGen)	46.3%	0.9%	0.9%	0.0%
Labrador Island Transmission Link (LITL)	43.9%	0.0%	0.0%	0.0%
Labrador Transmission Asset (LTA)	9.8%	0.0%	0.0%	0.0%
Muskrat Falls Project - Overall	100.0%	0.4%	0.4%	0.0%



Annex A

- I. Project Capital Budget
- II. Project Milestone Schedule

Columns in tables may not total due to rounding

I. Project Capital Budget

Muskrat Falls Generating Facility (in \$ thousands)	June 2017 AFE
Expenditure Category	
NE-LCP Owners Team, Admin and EPCM Services	\$655,850
Feasibility Engineering	\$17,543
Environmental & Regulatory Compliance	\$27,125
Aboriginal Affairs	\$16,395
Procurement & Construction	\$4,501,984
Commercial & Legal	\$54,760
Contingency	\$226,400
Muskrat Falls Generation Total	\$5,500,056
Labrador-Island Transmission Link (in \$ thousands)	March 2018 AFE
Expenditure Category	
NE-LCP Owners Team, Admin and EPCM Services	\$322,101
Feasibility Engineering	\$19,167
Environmental & Regulatory Compliance	\$14,726
Aboriginal Affairs	\$1,003
Procurement & Construction	\$3,233,690
Commercial & Legal	\$30,280
Contingency	\$92,750
Labrador-Island Transmission Link Total	. , ,
Labrador-Transmission Assets (in \$ thousands)	March 2018 AFE
Expenditure Category	
NE-LCP Owners Team, Admin and EPCM Services	\$137,284
Feasibility Engineering	\$363
Environmental & Regulatory Compliance	\$817
Aboriginal Affairs	\$80
Procurement & Construction	\$739,617
Commercial & Legal	\$5,383
Contingency	\$20,012
Labrador Transmission Assets Total	1 /
Muskrat Falls Capital Cost Budget Total	\$10,117,328

Contingency Budget (in \$ thousands)	March 2018 AFE
Sub-Project:	
Muskrat Falls Generating Facility	\$226,400
Labrador-Island Transmission Link	\$92,750
Labrador Transmission Assets	\$20,012
Total Project	\$339,162

II. Project Milestone Schedule

Muskrat Falls	June 2017
Generating Facility	Planned Dates
North Spur Works Ready	
for Diversion	Oct-16
River Diversion Complete	Feb-17
Reservoir Impoundment	
Complete	Nov-19
Powerhouse Unit 1	
Commissioned - Ready for	
Operation	Dec-19
First Power from Muskrat	
Falls	Nov-19
Powerhouse Unit 2	
Commissioned - Ready for	
Operation	Mar-20
Powerhouse Unit 3	
Commissioned - Ready for	
Operation	Jun-20
Powerhouse Unit 4	
Commissioned - Ready for	
Operation	Aug-20
Full Power from Muskrat	
Falls	Aug-20
Commissioning Complete	
- Commissioning	
Certificate Issued	Sep-20

Labrador-Island	June 2017
Transmission Link	Planned Dates
SOBI Cable Systems Ready	Dec-16
Soldiers Pond Switchyard	
Ready to Energize	Aug-17
Ready for Power	
Transmission (LTA)	Dec-17
Muskrat Falls Converter	
Station Ready to Energize	
(Pole 1)	Jun-18
HVdc Transmission Line	
Construction Complete	Dec-17
Soldier's Pond Converter	
Station Ready to Energize	
(Pole 1)	Jun-18
1ST Power Transfer (Pole 1)	Jul-18
Soldiers Pond Synchronous	
Condenser Ready for	
Operation	Jun-18
Ready for Power	
Transmission (Low Load	
Testing Complete Pole 1)	Dec-18
Muskrat Falls and Soldiers	
Pond Converter Stations -	
Bipole Dynamic Testing	
Complete	Mar-19
Commissioning Complete -	
Commissioning Certificate	
Issued	Sep-20

Labrador Transmission Assets	June 2017 Planned Dates
HVac Transmission Line Construction Complete	May-17
Churchill Falls Switchyard Ready to Energize	Nov-17
Muskrat Falls Switchyard Ready to Energize	Nov-17
Ready for Power Transmission	Dec-17
Commissioning Complete - Commissioning Certificate Issued	Sep-20



Annex B

Project Expenditures

- I. Muskrat Falls Generation
- II. Labrador Island Transmission Link
- III. Labrador Transmission Assets

I. Muskrat Falls Generation

	Project Budget	Cumulative \$			Cumulative %		
December 2018 (\$000)	June 2017 AFE	Planned	Incurred	Variance	Planned	Incurred	Variance
Description	А	В	С	C-B	D=B/A	E=C/A	E-D
NE-LCP Owners Team, Admin and EPCM Services	\$655,850	\$539,167	\$500,415	(\$38,752)	82.2%	76.3%	-5.9%
Feasibility Engineering	\$17,543	\$17,543	\$16,874	(\$669)	100.0%	96.2%	-3.8%
Environmental & Regulatory Compliance	\$27,125	\$26,452	\$26,020	(\$432)	97.5%	95.9%	-1.6%
Aboriginal Affairs	\$16,395	\$13,542	\$17,631	\$4,089	82.6%	107.5%	24.9%
Procurement & Construction	\$4,501,984	\$4,278,470	\$4,036,052	(\$242,418)	95.0%	89.7%	-5.4%
Commercial & Legal	\$54,760	\$36,712	\$39,648	\$2,936	67.0%	72.4%	5.4%
Contingency	\$226,400	\$0	\$0	\$0	0.0%	0.0%	0.0%
TOTAL	\$5,500,056	\$4,911,887	\$4,636,640	(\$275,247)	89.3%	84.3%	-5.0%

December 2018 (\$000)	Project Budget June 2017 AFE	Incurred Cumulative Costs December 2018
Description	Α	В
NE-LCP Owners Team, Admin and EPCM Services	\$655,850	\$500,415
Feasibility Engineering	\$17,543	\$16,874
Environmental & Regulatory Compliance	\$27,125	\$26,020
Aboriginal Affairs	\$16,395	\$17,631
Procurement & Construction	\$4,501,984	\$4,036,052
Commercial & Legal	\$54,760	\$39,648
Contingency	\$226,400	\$0
TOTAL	\$5,500,056	\$4,636,640

II. Labrador Island Transmission Link

	Project Budget	Cumulative \$			Cumulative %		
December 2018 (\$000)	March 2018 AFE	Plan	Incurred	Variance	Plan	Incurred	Variance
Description	Α	В	С	С-В	D=B/A	E=C/A	E-D
NE-LCP Owners Team, Admin and EPCM Services	\$322,101	\$321,802	\$321,010	(\$792)	99.9%	99.7%	-0.2%
Feasibility Engineering	\$19,167	\$19,167	\$18,717	(\$450)	100.0%	97.7%	-2.3%
Environmental & Regulatory Compliance	\$14,726	\$13,922	\$11,577	(\$2,345)	94.5%	78.6%	-15.9%
Aboriginal Affairs	\$1,003	\$905	\$615	(\$290)	90.2%	61.3%	-28.9%
Procurement & Construction	\$3,233,690	\$3,287,932	\$3,090,776	(\$197,156)	101.7%	95.6%	-6.1%
Commercial & Legal	\$30,280	\$26,556	\$21,191	(\$5,365)	87.7%	70.0%	-17.7%
Contingency	\$92,750	\$0	\$0	\$0	0.0%	0.0%	0.0%
TOTAL	\$3,713,716	\$3,670,284	\$3,463,886	(\$206,398)	98.8%	93.3%	-5.6%

December 2018 (\$000)	Project Budget March 2018 AFE	Incurred Costs Cumulative December 2018
Description	Α	В
NE-LCP Owners Team, Admin and EPCM Services	\$322,101	\$321,010
Feasibility Engineering	\$19,167	\$18,717
Environmental & Regulatory Compliance	\$14,726	\$11,577
Aboriginal Affairs	\$1,003	\$615
Procurement & Construction	\$3,233,690	\$3,090,776
Commercial & Legal	\$30,280	\$21,191
Contingency	\$92,750	\$0
TOTAL	\$3,713,716	\$3,463,886

III. Labrador Transmission Assets

	Project Budget	Project Budget Cumulative \$			С	Cumulative %		
December 2018 (\$000)	March 2018 AFE	Plan	Incurred	Variance	Plan	Incurred	Variance	
Description	Α	В	С	C-B	D=B/A	E=C/A	E-D	
NE-LCP Owners Team, Admin and EPCM Services	\$137,284	\$139,634	\$128,780	(\$10,854)	101.7%	93.8%	-7.9%	
Feasibility Engineering	\$363	\$363	\$303	(\$60)	100.0%	83.5%	-16.5%	
Environmental & Regulatory Compliance	\$817	\$817	\$812	(\$5)	100.0%	99.4%	-0.6%	
Aboriginal Affairs	\$80	\$80	\$166	\$86	100.0%	207.5%	107.5%	
Procurement & Construction	\$739,617	\$757,279	\$710,820	(\$46,459)	102.4%	96.1%	-6.3%	
Commercial & Legal	\$5,383	\$5,383	\$6,033	\$650	100.0%	112.1%	12.1%	
Contingency	\$20,012	\$0	\$0	\$0	0.0%	0.0%	0.0%	
TOTAL	\$903,556	\$903,556	\$846,916	(\$56,640)	100.0%	93.7%	-6.3%	

December 2018 (\$000)	Project Budget March 2018 AFE	Incurred Costs Cumulative December 2018
Description	Α	В
NE-LCP Owners Team, Admin and EPCM Services	\$137,284	\$128,780
Feasibility Engineering	\$363	\$303
Environmental & Regulatory Compliance	\$817	\$812
Aboriginal Affairs	\$80	\$166
Procurement & Construction	\$739,617	\$710,820
Commercial & Legal	\$5,383	\$6,033
Contingency	\$20,012	\$0
TOTAL	\$903,556	\$846,916



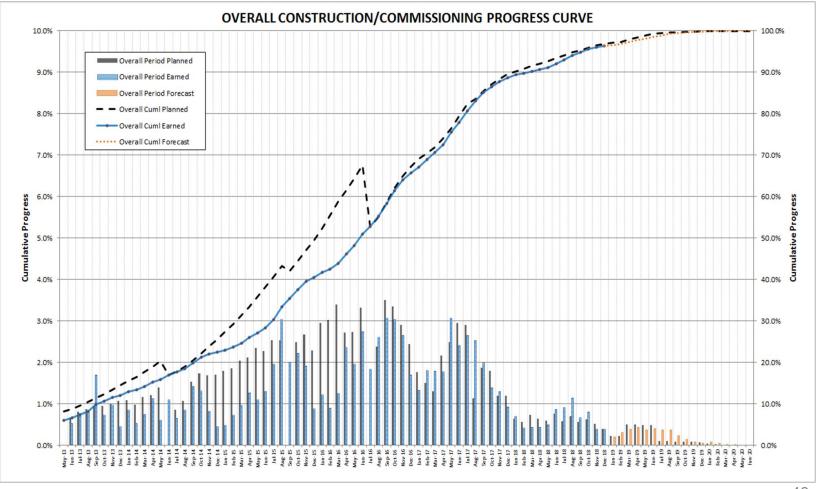
Annex C

Earned Progress

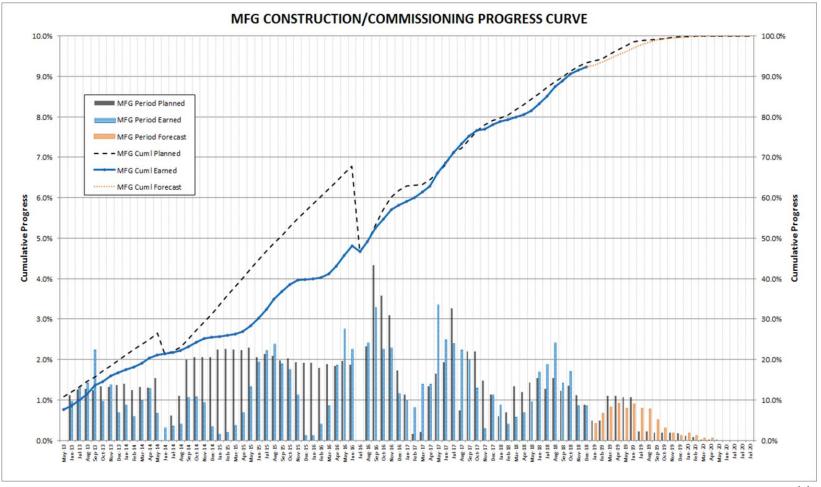
- I. Overall Construction
- II. Muskrat Falls Generation
- III. Labrador Island Transmission Link
- IV. Labrador Transmission Assets

Columns in tables may not total due to rounding

I. Overall Construction



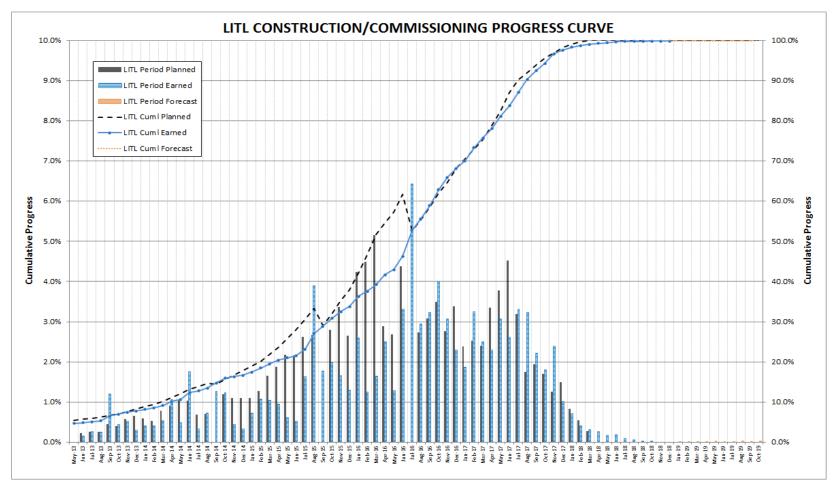
II. Muskrat Falls Generation



II. Muskrat Falls Generation

	Weight	December 2018 Cumulative %			September 2018
December 2018	Factor %	<u>Plan</u>	<u>Earned</u>	<u>Variance</u>	<u>Variance</u>
Sub-Project	Α	В	С	D = C - B	Е
MFG Road/Camp/Constr. Power	8.9%	100.0%	100.0%	0.0%	0.0%
MFG Reservoir Preparation	5.8%	100.0%	100.0%	0.0%	0.0%
MFG Spillway & Gates	12.2%	100.0%	91.4%	-8.6%	-9.3%
MFG North Spur Stabilization	3.9%	100.0%	100.0%	0.0%	0.0%
MFG North Dam	5.7%	100.0%	99.0%	-1.0%	-2.0%
MFG Powerhouse & Intake	61.3%	89.2%	89.5%	0.3%	0.7%
MFG South Dam	1.1%	100.0%	100.0%	0.0%	0.0%
MFG Misc:Eng/ 315kV/Site Rest./logistic	1.1%	90.3%	89.0%	-1.3%	-11.8%
MFGen - Overall	100.0%	93.3%	92.4%	-0.9%	-1.0%
* Adjusted for MFGen rollway installation schedule		92.3%	92.4%	0.1%	

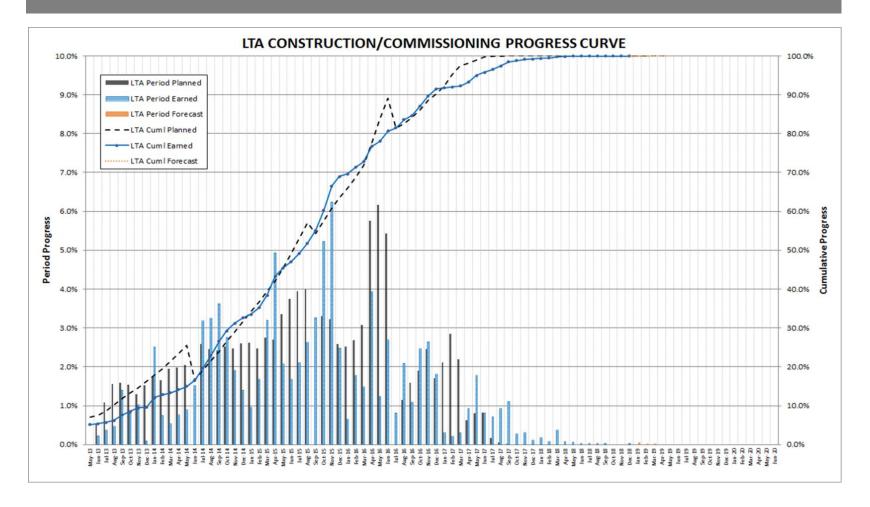
III. Labrador Island Transmission Link



III. Labrador Island Transmission Link

	Weight	December 2018 Cumulative %			September 2018
December 2018	Factor %	<u>Plan</u>	<u>Earned</u>	<u>Variance</u>	<u>Variance</u>
Sub-Project	Α	В	С	D = C - B	E
LITL Muskrat Falls Converter	6.1%	100.0%	99.0%	-1.0%	-1.0%
LITL Soldiers Pond Converter	5.5%	100.0%	99.1%	-0.9%	-0.9%
LITL HVdc Transmission Line Seg 1/2	26.8%	100.0%	100.0%	0.0%	0.0%
LITL HVdc Transmission Line Seg 3/4/5	34.2%	100.0%	100.0%	0.0%	0.0%
LITL Electrode Sites	0.8%	100.0%	100.0%	0.0%	0.0%
LITL Transition Compounds	1.7%	100.0%	100.0%	0.0%	0.0%
LITL SOBI Cable Crossing	17.7%	100.0%	100.0%	0.0%	0.0%
LITL Soldiers Pond Switchyard	2.7%	100.0%	100.0%	0.0%	0.0%
LITL Soldiers Pond Sync. Condensors	3.1%	100.0%	99.6%	-0.4%	-0.5%
LITL Misc	1.4%	100.0%	97.1%	-2.9%	-3.2%
LITL- Overall	100.0%	100.0%	99.8%	-0.2%	-0.2%

IV. Labrador Transmission Assets



IV. Labrador Transmission Assets

	Weight	December 2018 Cumulative %			September
December 2018	Factor %	<u>Plan</u>	<u>Earned</u>	<u>Variance</u>	2018 Variance
Sub-Project	Α	В	С	D = C - B	E
LTA HVac Transmission Line Seg1/2 - MF to CF	62.8%	100.0%	100.0%	0.0%	0.0%
LTA Churchill Falls Switchyard	21.7%	100.0%	100.0%	0.0%	0.0%
LTA Muskrat Falls Switchyard	13.4%	100.0%	99.9%	-0.1%	-0.1%
LTA Misc	2.1%	100.0%	97.6%	-2.4%	-2.4%
LTA - Overall	100.0%	100.0%	99.9%	-0.1%	-0.1%



Annex D

Project Milestone Schedule Forecast

- I. Muskrat Falls Generation
- II. Labrador Island Transmission Link
- III. Labrador Transmission Assets

I. Muskrat Falls Generation

December 2018	Planned Date June 2017	December 2018 Actual/Forecast
Project Sanction	17-Dec-12	Complete
North Spur Works Ready for Diversion	31-Oct-16	Complete
River Diversion Complete	15-Feb-17	Complete
Reservoir Impoundment Complete	1-Nov-19	14-Aug-19
Powerhouse Unit 1 Commissioned - Ready for Operation	19-Dec-19	9-Dec-19
First Power from Muskrat Falls	2-Nov-19	15-Oct-19
Powerhouse Unit 2 Commissioned - Ready for Operation	3-Mar-20	21-Feb-19
Powerhouse Unit 3 Commissioned - Ready for Operation	9-Jun-20	6-May-20
Powerhouse Unit 4 Commissioned - Ready for Operation	14-Aug-20	20-Jul-20
Full Power from Muskrat Falls	14-Aug-20	20-Jul-20
Commissioning Complete - Commissioning Certificate Issued	1-Sep-20	1-Sep-20

II. Labrador Island Transmission Link

December 2018	Planned Date June 2017	December 2018 Actual/forecast
Project Sanction	17-Dec-12	Complete
SOBI Cable Systems Ready	9-Dec-16	•
Soldiers Pond Switchyard Ready to Energize	31-Aug-17	Complete
Ready for Power Transmission (LTA)	31-Dec-17	Complete
Muskrat Falls Converter Station Ready to Energize (Pole 1)	1-Jun-18	Complete
HVdc Transmission Line Construction Complete	31-Dec-17	Complete
Soldier's Pond Converter Station Ready to Energize (Pole 1)	1-Jun-18	Complete
1ST Power Transfer (Pole 1)	1-Jul-18	Completion of 45 megawatt heat run
Soldiers Pond Synchronous Condenser Ready for Operation	1-Jun-18	
Ready for Power Transmission (Low Load Testing Complete Pole 1)	1-Dec-18	21-Jan-19 (Completion of low load testing for winter readiness)
Muskrat Falls and Soldiers Pond Converter Stations - Bipole Dynamic Testing		
Complete	31-Mar-19	² 16-February-20
Commissioning Complete - Commissioning Certificate Issued	1-Sep-20	1-Sep-20

¹ 4 month forecast date change due lube oil contamination issue since last reporting period.

² 3 month forecast date change since last reporting period.

III. Labrador Transmission Assets

December 2018	June 2017 Budget Planned Date	December 2018 Actual/Forecast
Project Sanction	17-Dec-12	Complete
		Complete: Turnover of HVac TL
HVac Transmission Line Construction Complete	31-May-17	and all subsystems complete
Churchill Falls Switchyard Ready to Energize	30-Nov-17	Complete
Muskrat Falls Switchyard Ready to Energize	30-Nov-17	Complete
Ready for Power Transmission	31-Dec-17	Complete
Commissioning Complete - Commissioning Certificate Issued	1-Sep-20	1-Sep-20



End of Report



Muskrat Falls Project Oversight Committee

Quarterly Project Update

Period Ending March 31, 2019

Table of Contents

- 1. Q1 2019 Cumulative Project Progress
- 2. Q1 2019 Performance Summary
- 3. Oversight Committee Reporting
- 4. Nalcor Reporting

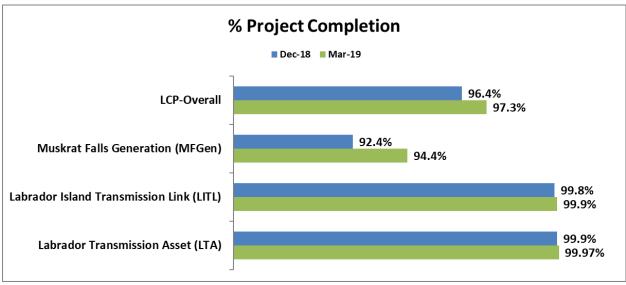
Annex A - Project Capital Budget and Project Milestone Schedule

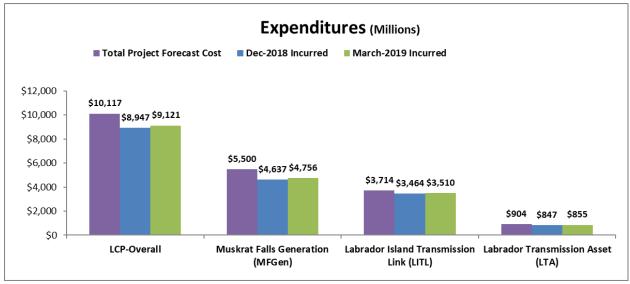
Annex B - Project Expenditures

Annex C - Earned Progress

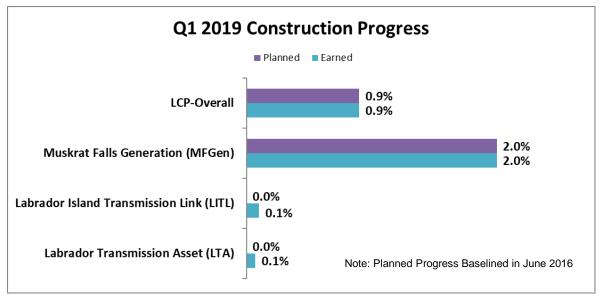
Annex D - Project Milestone Schedule Forecast

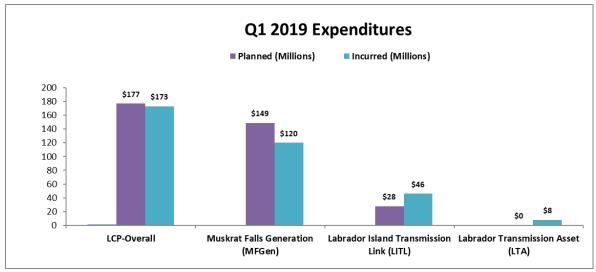
1. Q1 2019 Cumulative Project Progress





2. Q1 2019 Performance Summary







3.0 Oversight Committee Reporting

- 3.1 Overview
- 3.2 Committee Activities
- 3.3 Independent Engineer Activities
- 3.4 Risks and Issues Being Monitored by the Committee
- 3.5 Subsequent Events to Q1

3.1 Overview

- The Oversight Committee (Committee) receives details on project costs incurred, schedule progress, changes in costs and milestone schedule and the status of construction, manufacturing and installation contracts.
- The Committee identifies risks and issues and follows up with Nalcor to obtain more detail and explanation.
- This report covers the January 2019 to March 2019 period (Q1) and includes information on notable project activity up to the date of release of this report.
- Section 3 of this report contains information developed by the Committee.
 Section 4 contains project cost and schedule information provided by Nalcor.
 The Annexes contain a more detailed accounting of the information provided in this report.
- The next Committee Report will cover the period April 2019 June 2019.

3.2 Committee Activities

- The Committee met on two occasions during the period to receive project updates and conduct other Committee business. Committee meeting minutes and reports are available on the Committee website @ <u>Click here</u> and <u>Click</u> here.
- The Committee Executive Director participated as an observer in two monthly calls on Nalcor project reporting to the IE and NRCan. The Department of Natural Resources Deputy Minister and Assistant Deputy Minister also participated in one of these calls.
- The Committee Executive Director participated in two calls with the IE and NRCan to review Nalcor monthly project reporting and ongoing and planned visits.
- On January 10, 2019 the Committee Executive Director and Committee legal representative met with Nalcor and external legal counsel discuss ongoing Litigation/Arbitration between Nalcor and Astaldi.
- On March 26, 2019 Vanessa Newhook, Independent Committee member concluded her time with the Committee. The Committee wishes to thank Ms. Newhook her volunteer effort and valuable contribution.

3.3 Independent Engineer Activities

- In November 2018, the IE visited the Andritz manufacturing facility in Chambly, QC where the Protection & Controls equipment and software for the MFGen plant is being developed and built.
- In December 3-6, 2018 the IE held technical meetings in Nalcor St. John's offices with project teams.
- Since this time, the IE has prepared a report for NRCan and Nalcor summarizing the IE's observations from these visits. In this report, the IE has made several recommendations/suggestions primarily related to powerhouse, Protection and Controls (P&C) systems and intake bulkhead gate operation. Nalcor and the IE have advised that they are in discussion to conclude matters raised in the report.
- The Committee has requested that Nalcor provide a management response to the IE report once the IE recommendations/suggestions have been considered.
- The IE report and management response will be posted to the Committee website following finalization of discussions with the IE on the recommendations/suggestions and release of the report.

3.4 Risk and Issues being Monitored by the Committee

- In its project reporting, Nalcor identifies risks which may impact project cost and schedule. The Committee reviews these and other project information to assess project risks. These risks can be found on pages 10-13 of this report.
- Over the reporting period the Committee noted:
 - North Dam physical scope is complete and is in service with demobilization of the contractor expected in June 2019;
 - Reservoir rim stability remained consistent over the Quarter;
 - Pennecon work (replacement contractor for Astaldi) in the powerhouse is progressing well;
 - Litigation and Arbitration proceedings are ongoing with Astaldi;
 - Astaldi is claiming up to \$800 million in damages and is required to submit its formal statement of claim by May 31, 2019; Nalcor is preparing a counter claim;
 - Protection and Controls (P&C) software completion for the HVdc system and schedule remains a key project risk which is now approaching the critical path for the overall project schedule;
 - Further issues have been identified in the Soldiers Pond synchronous condensers and remediation of already identified issues continues; and
 - Nalcor/NLH preparedness for interconnection and operations following Pole 1 transfer of power period and completion of bipole remains a key focus area.

- The project is now largely in the installation, integration and static and dynamic commissioning phases which inherently carry associated risks.
- Risks that are being tracked by the Committee include:
 - A) Safety Performance
 - Risk associated with simultaneous operations across multiple work sites, impact on project delivery particularly in the powerhouse, energized yards and other assets. This risk will continue through construction into operations.
 - B) Contractor Management and Productivity
 - Nalcor ability to manage contractors and contractor ability to meet schedule;
 - Contractor management and performance in the powerhouse;
 - Potential commercial negotiations to settle claims; and
 - Potential for new claims as construction nears completion.

C) Phased Commissioning

- Completion of P&C system to enhance functionality and reliability; associated warranty considerations with early asset handover during Pole 1 commissioning and completion;
- Continued LITL schedule milestone changes;
- Final completion and testing of HVdc system under low and full power, in-service system reliability, and timing of contractor release and effective warranty period; and
- P&C software completion to maintain project critical path and power delivery.

D) Astaldi

- Completion of powerhouse and spillway work by Pennecon;
- Impact on other contractors;
- Astaldi Litigation/Arbitration outcomes; and
- Impact on project costs and schedule.

E) Synchronous Condensers

 Remediation of lube oil contamination, rotor lift and hydrogen system contamination and impact on milestone and overall project schedule for this activity.

F) Insurance Claims and Coverage

- Claims ongoing: Synchronous condensers As of June 2019, remedial work complete on unit 1 and 3 with dynamic commissioning ongoing; unit 2 assembly ongoing. Working with GE to optimize recovery through insurance coverage;
- Recently settled claims: Water ingress in section of LITL sub-sea cable - final payment received in June 2019; and
- Potential coverage: Preservation/re-preservation of Turbine and Generator parts - investigations ongoing; Powerhouse crane rail issues - investigations ongoing.

G) Cofferdam Performance

 This risk will be retired in future reporting as the North Dam is now in service at the 25 meter supply level.

H) Reservoir Rim Stability

 Impact of changing water levels during interim impoundment on reservoir shoreline/slope stability.

I) Project Integration and Operations Readiness

 Nalcor/NLH readiness to connect the Muskrat Falls Project to the Island and North American electricity grid and operate facilities effectively.

J) Project Delivery Team Retention

- Project Team personnel departures and potential impact on project completion; and
- Departures continued to occur over the Quarter.

K) Additional Risks (Strategic)

- Protest unrest;
- Commission of Inquiry Respecting the Muskrat Falls Project;
- Independent Expert Advisory Committee (IEAC) recommendations outcomes;
- Other unforeseen directives from Government; and
- Potential impact on cost and schedule.
- Funds are not held within the June 2017 Project Budget for these risks.

3.5 Subsequent Events to Q1 2019

- On April 1, 2019 The Committee Executive Director (Chair) participated in a call with Nalcor to discuss Nalcor 2018 and 2019 internal audit plans.
- On April 9, 2019 Nalcor held its 2019 Annual General Meeting. Financial statements
 can be found on the Nalcor website @ <u>Click here</u>. Combined financial statements for
 the Lower Churchill Project Companies and Special Audit Procedures reports can be
 found on the Committee website @ <u>Click here</u> and <u>Click here</u>.
- On April 10, 2019 The Committee Executive Director (Chair), Committee legal representative and Natural Resources Director met with Nalcor and external counsel to receive an update on the ongoing Litigation/Arbitration between Nalcor and Astaldi. The formal statement of claim from Astaldi against Nalcor was received on May 31, 2019. Obligations to Emera under the Project agreements were also discussed during this meeting.
- Committee members will be meeting with Nalcor and its external counsel on June 27, 2019 to discuss the Astaldi statement of claim and Nalcor counter claim.
- On April 24, 2019 the Committee Executive Director (Chair), Department of Natural Resources Assistant Deputy Minister and Director met with Newfoundland and Labrador Hydro (NLH) to discuss project integration and operations and HVdc Protection and Controls (P&C) and power transfer. NLH reports positive progress, however NLH is closely monitoring this progress with respect to schedule risk and asset functionality as results could impact power transfer capacity and reliability.

3.5 Subsequent Events to Q1 2019

- Powerhouse intake water up and cofferdam removal occurred in April 2019.
- A site visit by the dam safety review consultant (Hatch) was completed on April 15-17, 2019. The final report is pending and will be posted to the Muskrat Falls Project website once complete.
- In May 2019, Nalcor released a North Spur Stabilization Works Construction Report, Post Construction Assessment Report and follow up Addendum. These reports can be found on the Muskrat Falls Project website @ Click here.
- On May 28, 2019 Nalcor released its Q1 2019 financial report. This report can be found on the Nalcor website @ Click here.
- On June 19, 2019 the Minister of Natural Resources announced the appointments of new independent members Lynn Zurel CPA, CA, and Judy Morrow, QC, to fill vacancies on the Committee.
- On June 25, 2019 the Committee was advised by Power Supply that further schedule slippage of P&C bipole software delivery is anticipated. The Committee will report any changes to the schedule following review of project materials over the reporting period in preparation of the Committee's Q2, 2019 report.



4.0 Nalcor Reporting

- 4.1 Summary Quarter Ending March 2019
- 4.2 Project Expenditures
- 4.3 Contingency
- 4.4 Earned Progress

- March 2019 Summary:
 - Overall construction progress is at 97.3%;
 - \$9,121 Million in incurred costs; and
 - \$9,383 Million in committed costs.
- Overall, the project is tracking in compliance with the June 2017 budget and schedule.
- As of March 2019, the June 2017 budget final forecast cost remains unchanged.
 - While the overall budget and final forecast cost remains unchanged, variances between the project budget and final forecast costs have occurred within and among expenditure categories. Most variances are related to the transfer of budget between allocations from the contingency budget to the procurement and construction budget.
 - The June 2017 budget does not include funds for Additional Risks as reported in the December 2018, Q4 Committee Report (\$170-370 Million), or any potential cost risk associated with the Astaldi claim (up to \$800 Million - see page 21 for further details).
- The current forecast contingency budget at March 2019 is \$164.8 Million, an increase of \$54.8 Million from the previous Quarter. For further detail see Section 4.3.

Quarterly Planned vs Incurred Cost Variances:

MFGen	
Cumulative Planned: \$5,061M	Q1 2019 Planned: \$149M
Cumulative Incurred: \$4,756M	Q1 2019 Incurred: \$120M
Variance: -\$305M (-6.0%)	Variance: -\$29M (-19.5%)

- Planned expenditure by month was set in June 2017.
- During Q1 2019, the variance in planned vs. incurred cost is primarily due to the recoupment of the letters of credit with respect to payment of liens under the terminated Contract for the Construction of the Intake, Powerhouse Spillway and Transition Dam (CH0007) and slower than planned expenditure related to the completion of the Balance of Plant scope.
- See Section 4.2 and Appendix B for further detail.

Quarterly Planned vs Incurred Cost Variances:

LITL	
Cumulative Planned: \$3,698M	Q1 2019 Planned: \$28M
Cumulative Incurred: \$3,510M	Q1 2019 Incurred: \$46M
Variance: -\$188M (-5.1%)	Variance: \$18M (39.1%)
LTA	
Cumulative Planned: \$904M	Q1 2019 Planned: \$0M
Cumulative Planned: \$904M Cumulative Incurred: \$855M	Q1 2019 Planned: \$0M Q1 2019 Incurred: \$8M

- The planned expenditure by month was set in June of 2017.
- During Q1 2019, incurred was higher than planned due to extension of scope into 2019, whereas scope was planned to be substantially complete in 2018.
- See Section 4.2 and Appendix B for further detail.

Planned vs Earned Progress:

- MFGen
 - Cumulative progress as of end Q1 2019 was 94.4% vs. a plan of 95.3% (variance of -0.9%). Quarterly progress for Q1 2019 was 2.0% vs. a plan of 2.0% (variance of 0%).
 - During the Quarter, the cumulative variance remained steady at 0.9% behind plan.
 - As noted in the previous reports, over the past 2 years the planned timing of installation of the rollways has changed. The first two rollways were completed in 2018. The third was planned for 2018; however was not completed due to the termination of the Astaldi contract. The last 3 are now planned for installation in 2019. Due to these changes, it is expected that the Spillway & Gates will continue to trend behind the baseline progress set in mid-2016 until the scope is complete.
 - LTA/LITL
 - > 99% complete.
- See Section 4.2 and Appendix C for further detail.

<u>Power Development:</u>

- The project remains on budget and on schedule with the June 2017 budget;
- Spillway and gates remain at 91% construction complete;
- Powerhouse is at (93% complete);
 - Intake 2 civil scope complete;
 - Unit 2 Pit Free achieved in February 2019;
 - Unit 3 generator slab complete; crane rail remediation scope completed in April 2019; and
 - Unit 4 pit walls complete; crane rail repairs ongoing.
- Arbitration with Astaldi continues; payment of Astaldi related liens against the project ongoing; Nalcor intends to recover any costs associated from Astaldi or the contract's securities.
- As of the end of March 2019, Astaldi has claimed up to \$800 Million in damages, Official Statement of Claim to be received by May 31, 2019.
- Funds are not held within the current June 2017 budget should net damages be awarded in Astaldi's favour.
- Power Development's March 2019 summary schedule forecast can be found on slide 24.

Hydro Mechanical Installation

- All physical work scope is completed for water tight; intake water-up commenced in April and commissioning in all 12 bays was completed in April;
- Intake punchlist items progressing well and demobilization of intake deck ongoing;
- Fabrication of 3rd set of spillway stop logs is ongoing; and
- Trash cleaning machine final assembly ongoing with commissioning planned for early May.

Turbines and Generators

- Stator bar and protection and control panel Factory Acceptance Testing (FAT) is complete for Units 1 and 2 and ongoing for Unit 3; manufacturing ongoing for Unit 4;
- Unit 1 preparation for rotor lift ongoing; rotor rim piling complete; outer head cover installed in pit and alignment ongoing; stator core stacking complete;
- Unit 1 runner hub installation was delayed due to an alignment issue which has now has been resolved; however minimal float now remains against the Integrated Project Schedule (IPS);
- Unit 1 stator bar installation is approximately 70% complete;
- Night shift has been implement to reduce risk of schedule delays;
- Unit 2 pit machining is ongoing (was completed in May); and
- Units 3 and 4 are awaiting for handover from Pennecon to Andritz (both handed over in May).

Balance of Plant

- Cable tray and support installation is ongoing; lighting, battery installation at various powerhouse elevations continues;
- Ongoing installation of pipes and supports for various systems and isolated phase bus (IPB) installation on Units 1 and 2;
- Mechanical completion and commissioning continues;
- The control room is ready for equipment installation; and
- Priority has been given to ready to turn milestone.

North and South Dams

- All physical scope is complete; demobilization is ongoing with expected completion in June and North Dam is in service;
- Spillway pressure relief holes work scope completed;
- Ready for intake-water-up scope completed; and
- Intake cofferdam removal completed in April.

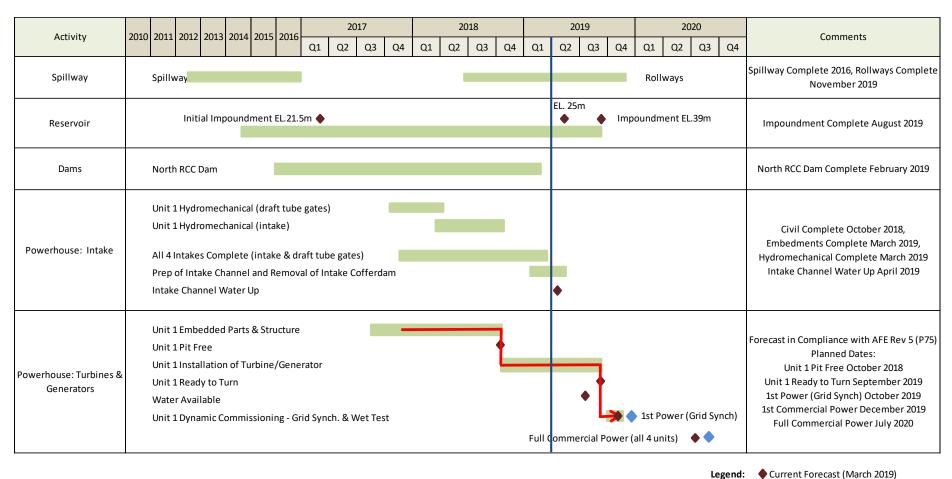
Spillway Rollway Construction

- Rollways 2, 3, and 4 to be completed following spring freshette.
- Focus areas for Q2 2019 include execution of remaining powerhouse and spillway work, and preparations for reservoir impoundment.
- The forecast expenditure for the Q2 2019 is estimated at approximately \$108 Million.

Planned Dates (June 2017 AFE Rev 5)

4.1 Summary – Quarter Ending March 2019

Power Development March 2019 Summary Schedule Forecast



Power Supply:

- The overall project remains on budget and on schedule with the June 2017 budget;
- Strait of Belle Isle (SOBI)
 - Construction complete (100%), commercially closed, and
 - Turned over to operations.
- Overland Transmission Assets (LITL (99.9%) and LTA (99.97%)
 - Construction complete; and
 - Commissioning and testing ongoing.
- HVdc Specialties (Churchill Falls, Muskrat Falls and Soldiers Pond)
 - Construction complete for Pole 1;
 - Pole1 assets energized;
 - Daily winter power transfer continued through March; and
 - Commissioning and energization activities ongoing.
- Power Supply's March 2019 summary schedule forecast can be found on slide 29.

Pole 1 (Monopole) Status

LITL (Quarter 1 2019)	Availability
January	92%
February	72%
March	96%

Pole 1 Power Transfer and P&C Software

- Since February 5, 2019 power transfer levels have fluctuated at restricted rates between 45-100 Megawatts due to an issue with P&C software;
- On May 1, 2019 an updated version of P&C software (17c) was installed and commissioned over a four work period; and
- As planned, the LITL was taken out of service in June to progress bipole completion.
- The Muskrat Falls and Soldiers Pond Converter Stations Bipole Dynamic Commissioning Complete schedule milestone date has moved from February to March 2020.
- For further details on schedule milestone dates see Appendix D.

Bipole and P&C Software

- Following commissioning of monopole software 17c, a preliminary version of non operational bipole software will be installed in June for static checks and verification during the period June to September 2019;
- Installation and testing of hardware for bipole operation continues at Muskrat Falls and Soldiers Pond switchyards and converter stations in preparation for installation of Factory Acceptance Tested (FAT) bipole software which is scheduled to be delivered by GE at the end of August 2019;
- The August FAT bipole software is an interim version; functionality not required for low load testing is deferred to the final high power version of bipole software;
- August FAT bipole software dynamic testing at low load is planned through September and October 2019; following dynamic commissioning, the LITL will continue bipole operations until the final version is delivered;
- The final version of bipole software is expected to be delivered by GE in early 2020 followed by additional testing and trial operations period to be coordinated with NLH to ensure cost effective reliable delivery of power;
- Weekly meetings between GE and Nalcor are ongoing to discuss progress of bipole software development and Independent Third Party (ITP) reviewers are validating progress, functionality and completion deliverables under the GE amending agreement; and
- Bipole software completion and dynamic commissioning remains the largest risk for Power Supply. As of the end of March 2019, there is little if any schedule float remaining in the project schedule.

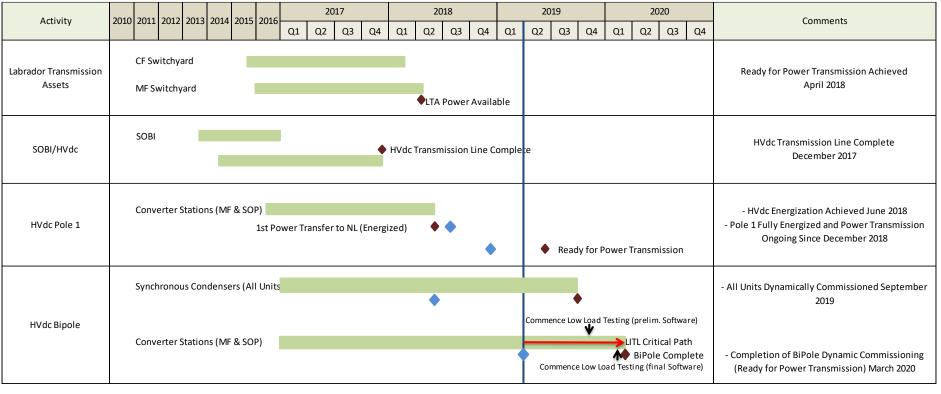
Synchronous Condensers

- There are currently three issues with the Soldiers Pond synchronous condensers which are currently undergoing remediation and repair;
- Since the last reporting period two addition issues have been identified including an inability to achieve rotor lift on Unit 2, and hydrogen piping contamination on all units;

Issue	Status (as of April 2019)
Lube Oil Contamination	Unit 3 repair work ongoing and dynamic commissioning occurring on Units 1 and 2
Rotor Lift	Rotor lift tests successfully completed on Units 1 and 3 and Unit 3 dynamically tested; Unit 2 undergoing testing
Hydrogen Piping System	Quality issues detected in March 2019; debris discovered due to improper cleaning during assembly; inspection and remediation ongoing

- As of the end of March 2019, all three units are scheduled to be commissioned in Q3; potential for 3-6 week delay beyond this is being assessed; and
- Synchronous condensers are not on the projects critical path.
- The focus for Q2, 2019 remains on continued completions, commissioning and integration of operations; and
- The forecast expenditure for Q2, 2019 is estimated at approximately \$40 Million.

Power Supply March 2019 Summary Schedule Forecast



◆ Planned Dates (June 2017 AFE Rev 4)

4.2 Project Expenditures

	Project	Project Cumulative \$			Cumulative %		
	Budget June						
March 2019 (\$000)	2017 AFE	Plan	Incurred	Variance	Plan	Incurred	Variance
Description	Α	В	С	C-B	D=B/A	E=C/A	E-D
NE-LCP Owners Team, Admin and EPCM							
Services	\$1,115,235	\$1,031,392	\$970,731	(\$60,661)	92.5%	87.0%	-5.4%
Feasibility Engineering	\$37,072	\$37,073	\$35,847	(\$1,226)	100.0%	96.7%	-3.3%
Environmental & Regulatory Compliance	\$42,669	\$41,821	\$38,464	(\$3,357)	97.9%	90.1%	-7.9%
Aboriginal Affairs	\$17,478	\$14,993	\$19,840	\$4,847	85.8%	113.5%	27.7%
Procurement & Construction	\$8,475,290	\$8,464,547	\$7,983,902	(\$480,645)	99.9%	94.2%	-5.7%
Commercial & Legal	\$90,423	\$73,096	\$72,113	(\$983)	80.8%	79.8%	-1.1%
Contingency	\$339,162	\$0	\$0	\$0	0.0%	0.0%	0.0%
TOTAL	\$10,117,328	\$9,662,922	\$9,120,897	(\$542,025)	95.5%	90.2%	-5.4%

March 2019 (\$000)	Project Budget June 2017 AFE	Incurred Cumulative Costs March 2019	Project Final Forecast Cost March 2019	Variance PFC from Budget
Description	Α	В	С	D=A-C
NE-LCP Owners Team, Admin and EPCM Services	\$1,115,235	\$970,731	\$1,167,700	(\$52,465)
Feasibility Engineering	\$37,072	\$35,847	\$35,847	\$1,225
Environmental & Regulatory Compliance	\$42,699	\$38,464	\$41,408	\$1,291
Aboriginal Affairs	\$17,478	\$19,840	\$31,451	(\$13,973)
Procurement & Construction	\$8,475,290	\$7,983,902	\$8,566,882	(\$91,592)
Commercial & Legal	\$90,423	\$72,113	\$109,228	(\$18,805)
Contingency	\$339,162	\$0	\$164,811	\$174,351
TOTAL	\$10,117,328	\$9,120,897	\$10,117,327	0

4.3 Contingency

		March 2019	Project	Project	Change from	
	Project Budget		December	March	Previous	Variance PFC
	June 2017 AFE			2019	Quarter	from Budget
	Α	-	В	С	C - B	C - A
Total Project	\$339,162	\$339,162	\$110,051	\$164,811	\$54,760	(\$174,351)

.

4.4 Earned Progress

	Weight	March 20)19 Cumulat	ive %	December
Cumulative to end of March 2019	Factor %	<u>Planned</u>	<u>Earned</u>	<u>Variance</u>	2018 Variance
Sub-Project	А	В	С	D = C - B	Е
Muskrat Falls Generation (MFGen)	46.3%	95.3%	94.4%	-0.9%	-0.9%
Labrador Island Transmission Link (LITL)	43.9%	100.0%	99.9%	-0.1%	-0.2%
Labrador Transmission Asset (LTA)	9.8%	100.0%	99.97%	-0.03%	0.1%
Muskrat Falls Project - Overall	100.0%	97.8%	97.3%	-0.5%	-0.5%

	Weight		Period %	
March 2019 Period	Factor %	<u>Planned</u>	<u>Earned</u>	<u>Variance</u>
Sub-Project	А	В	С	D = C - B
Muskrat Falls Generation (MFGen)	46.3%	1.1%	0.9%	-0.2%
Labrador Island Transmission Link (LITL)	43.9%	0.0%	0.0%	0.0%
Labrador Transmission Asset (LTA)	9.8%	0.0%	0.01%	0.0%
Muskrat Falls Project - Overall	100.0%	0.5%	0.4%	-0.1%



Annex A

- I. Project Capital Budget
- II. Project Milestone Schedule

I. Project Capital Budget

Muskrat Falls Generating Facility (in \$ thousands)	June 2017 AFE
Expenditure Category	
NE-LCP Owners Team, Admin and EPCM Services	\$655,850
Feasibility Engineering	\$17,543
Environmental & Regulatory Compliance	\$27,125
Aboriginal Affairs	\$16,395
Procurement & Construction	\$4,501,984
Commercial & Legal	\$54,760
Contingency	\$226,400
Muskrat Falls Generation Total	\$5,500,056
Labrador-Island Transmission Link (in \$ thousands)	March 2018 AFE
Expenditure Category	
NE-LCP Owners Team, Admin and EPCM Services	\$322,101
Feasibility Engineering	\$19,167
Environmental & Regulatory Compliance	\$14,726
Aboriginal Affairs	\$1,003
Procurement & Construction	\$3,233,690
Commercial & Legal	\$30,280
Contingency	\$92,750
Labrador-Island Transmission Link Total	\$3,713,716
Labrador-Transmission Assets (in \$ thousands)	March 2018 AFE
Expenditure Category	
NE-LCP Owners Team, Admin and EPCM Services	\$137,284
Feasibility Engineering	\$363
Environmental & Regulatory Compliance	\$817
Aboriginal Affairs	\$80
Procurement & Construction	\$739,617
Commercial & Legal	\$5,383
Contingency	\$20,012
Labrador Transmission Assets Total	\$903,556
Muskrat Falls Capital Cost Budget Total	\$10,117,328

Contingency Budget (in \$ thousands)	March 2018 AFE
Sub-Project:	
Muskrat Falls Generating Facility	\$226,400
Labrador-Island Transmission Link	\$92,750
Labrador Transmission Assets	\$20,012
Total Project	\$339,162

II. Project Milestone Schedule

Muskrat Falls	June 2017
Generating Facility	Planned Dates
North Spur Works Ready	
for Diversion	Oct-16
River Diversion Complete	Feb-17
Reservoir Impoundment	
Complete	Nov-19
Powerhouse Unit 1	
Commissioned - Ready for	
Operation	Dec-19
First Power from Muskrat	
Falls	Nov-19
Powerhouse Unit 2	
Commissioned - Ready for	
Operation	Mar-20
Powerhouse Unit 3	
Commissioned - Ready for	
Operation	Jun-20
Powerhouse Unit 4	
Commissioned - Ready for	
Operation	Aug-20
Full Power from Muskrat	
Falls	Aug-20
Commissioning Complete	
- Commissioning	
Certificate Issued	Sep-20

Labrador-Island	June 2017
Transmission Link	Planned Dates
SOBI Cable Systems Ready	Dec-16
Soldiers Pond Switchyard	
Ready to Energize	Aug-17
Ready for Power	
Transmission (LTA)	Dec-17
Muskrat Falls Converter	
Station Ready to Energize	
(Pole 1)	Jun-18
HVdc Transmission Line	
Construction Complete	Dec-17
Soldier's Pond Converter	
Station Ready to Energize	
(Pole 1)	Jun-18
1ST Power Transfer (Pole 1)	Jul-18
Soldiers Pond Synchronous	
Condenser Ready for	
Operation	Jun-18
Ready for Power	
Transmission (Low Load	
Testing Complete Pole 1)	Dec-18
Muskrat Falls and Soldiers	
Pond Converter Stations -	
Bipole Dynamic Testing	
Complete	Mar-19
Commissioning Complete -	
Commissioning Certificate	
Issued	Sep-20

Labrador Transmission Assets	June 2017 Planned Dates
HVac Transmission Line Construction Complete	May-17
Churchill Falls Switchyard Ready to Energize	Nov-17
Muskrat Falls Switchyard Ready to Energize	Nov-17
Ready for Power Transmission	Dec-17
Commissioning Complete - Commissioning Certificate Issued	Sep-20



Annex B

Project Expenditures

- I. Muskrat Falls Generation
- II. Labrador Island Transmission Link
- III. Labrador Transmission Assets

I. Muskrat Falls Generation

	Project Budget		Cumulative %				
March 2019 (\$000)	June 2017 AFE	Planned	Incurred	Variance	Planned	Incurred	Variance
Description	А	В	С	C-B	D=B/A	E=C/A	E-D
NE-LCP Owners Team, Admin and EPCM Services	\$655,850	\$563,307	\$508,243	(\$55,064)	85.9%	77.5%	-8.4%
Feasibility Engineering	\$17,543	\$17,543	\$16,865	(\$678)	100.0%	96.1%	-3.9%
Environmental & Regulatory Compliance	\$27,125	\$26,680	\$26,063	(\$617)	98.4%	96.1%	-2.3%
Aboriginal Affairs	\$16,395	\$13,959	\$19,047	\$5,088	85.1%	116.2%	31.0%
Procurement & Construction	\$4,501,984	\$4,400,564	\$4,142,853	(\$257,711)	97.7%	92.0%	-5.7%
Commercial & Legal	\$54,760	\$39,295	\$43,172	\$3 <i>,</i> 877	71.8%	78.8%	7.1%
Contingency	\$226,400	\$0	\$0	\$0	0.0%	0.0%	0.0%
TOTAL	\$5,500,056	\$5,061,346	\$4,756,244	(\$305,102)	92.0%	86.5%	-5.5%

March 2019 (\$000)	Project Budget June 2017 AFE	Incurred Cumulative Costs March 2019
Description	Α	В
NE-LCP Owners Team, Admin and EPCM Services	\$655,850	\$508,243
Feasibility Engineering	\$17,543	\$16,865
Environmental & Regulatory Compliance	\$27,125	\$26,063
Aboriginal Affairs	\$16,395	\$19,047
Procurement & Construction	\$4,501,984	\$4,142,853
Commercial & Legal	\$54,760	\$43,172
Contingency	\$226,400	\$0
TOTAL	\$5,500,056	\$4,756,244

II. Labrador Island Transmission Link

	Project Budget	Cumulative \$			Cumulative %		
March 2019 (\$000)	March 2018 AFE	Plan	Incurred	Variance	Plan	Incurred	Variance
Description	Α	В	С	С-В	D=B/A	E=C/A	E-D
NE-LCP Owners Team, Admin and EPCM Services	\$322,101	\$328,451	\$333,184	\$4,733	102.0%	103.4%	1.5%
Feasibility Engineering	\$19,167	\$19,167	\$18,679	(\$488)	100.0%	97.5%	-2.5%
Environmental & Regulatory Compliance	\$14,726	\$14,324	\$11,589	(\$2,735)	97.3%	78.7%	-18.6%
Aboriginal Affairs	\$1,003	\$954	\$625	(\$329)	95.1%	62.3%	-32.8%
Procurement & Construction	\$3,233,690	\$3,306,704	\$3,123,830	(\$182,874)	102.3%	96.6%	-5.7%
Commercial & Legal	\$30,280	\$28,418	\$22,239	(\$6,179)	93.9%	73.4%	-20.4%
Contingency	\$92,750	\$0	\$0	\$0	0.0%	0.0%	0.0%
TOTAL	\$3,713,716	\$3,698,018	\$3,510,147	(\$187,871)	99.6%	94.5%	-5.1%

March 2019 (\$000)	Project Budget March 2018 AFE	Incurred Costs Cumulative March 2019
Description	Α	В
NE-LCP Owners Team, Admin and EPCM Services	\$322,101	\$333,184
Feasibility Engineering	\$19,167	\$18,679
Environmental & Regulatory Compliance	\$14,726	\$11,589
Aboriginal Affairs	\$1,003	\$625
Procurement & Construction	\$3,233,690	\$3,123,830
Commercial & Legal	\$30,280	\$22,239
Contingency	\$92,750	\$0
TOTAL	\$3,713,716	\$3,510,147

III. Labrador Transmission Assets

	Project Budget	Cumulative \$			Cumulative %		
March 2019 (\$000)	March 2018 AFE	Plan	Incurred	Variance	Plan	Incurred	Variance
Description	Α	В	С	С-В	D=B/A	E=C/A	E-D
NE-LCP Owners Team, Admin and EPCM Services	\$137,284	\$139,634	\$129,304	(\$10,330)	101.7%	94.2%	-7.5%
Feasibility Engineering	\$363	\$363	\$303	(\$60)	100.0%	83.5%	-16.5%
Environmental & Regulatory Compliance	\$817	\$817	\$812	(\$5)	100.0%	99.4%	-0.6%
Aboriginal Affairs	\$80	\$80	\$168	\$88	100.0%	210.0%	110.0%
Procurement & Construction	\$739,617	\$757,279	\$717,219	(\$40,060)	102.4%	97.0%	-5.4%
Commercial & Legal	\$5,383	\$5,383	\$6,702	\$1,319	100.0%	124.5%	24.5%
Contingency	\$20,012	\$0	\$0	\$0	0.0%	0.0%	0.0%
TOTAL	\$903,556	\$903,556	\$854,508	(\$49,048)	100.0%	94.6%	-5.4%

	Project Budget	Incurred Costs
March 2019 (\$000)	March 2018 AFE	Cumulative March 2019
Description	Α	В
NE-LCP Owners Team, Admin and EPCM Services	\$137,284	\$129,304
Feasibility Engineering	\$363	\$303
Environmental & Regulatory Compliance	\$817	\$812
Aboriginal Affairs	\$80	\$168
Procurement & Construction	\$739,617	\$717,219
Commercial & Legal	\$5,383	\$6,702
Contingency	\$20,012	\$0
TOTAL	\$903,556	\$854,508

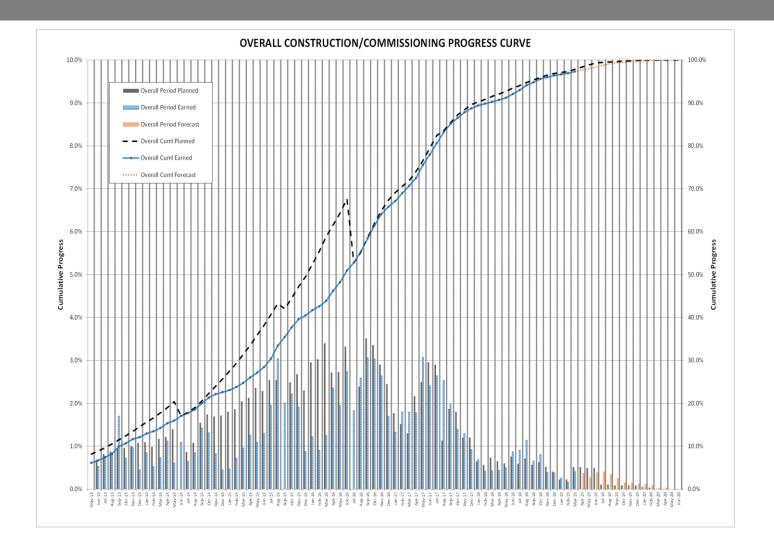


Annex C

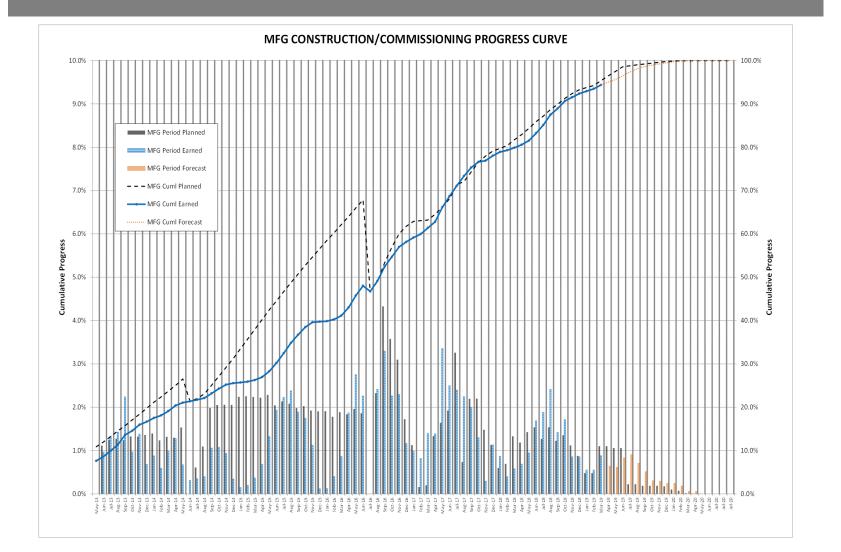
Earned Progress

- I. Overall Construction
- II. Muskrat Falls Generation
- III. Labrador Island Transmission Link
- IV. Labrador Transmission Assets

I. Overall Construction



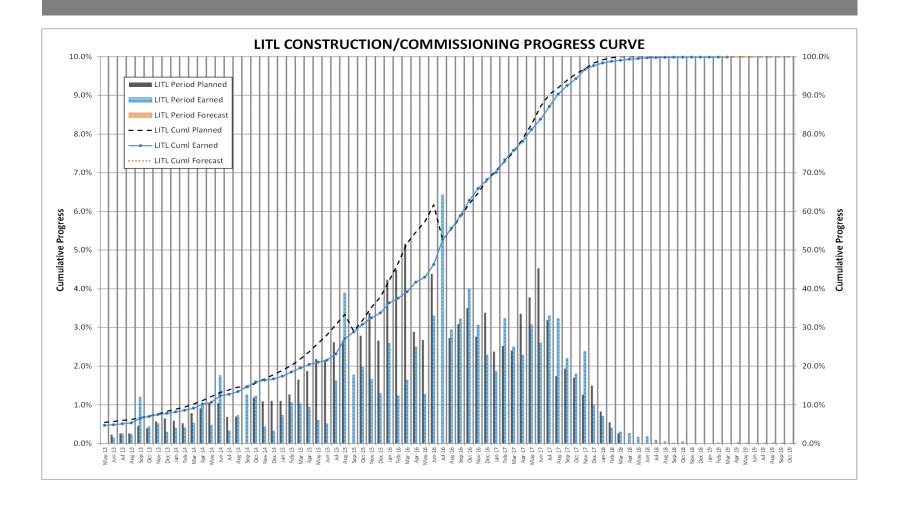
II. Muskrat Falls Generation



II. Muskrat Falls Generation

	Weight	March 2	December 2018		
March 2019	Factor %	<u>Plan</u>	<u>Earned</u>	<u>Variance</u>	Variance
Sub-Project	Α	В	С	D = C - B	Е
MFG Road/Camp/Constr. Power	8.9%	100.0%	100.0%	0.0%	0.0%
MFG Reservoir Preparation	5.8%	100.0%	100.0%	0.0%	0.0%
MFG Spillway & Gates	12.2%	100.0%	91.4%	-8.6%	-8.6%
MFG North Spur Stabilization	3.9%	100.0%	100.0%	0.0%	0.0%
MFG North Dam	5.7%	100.0%	100.0%	0.0%	-1.0%
MFG Powerhouse & Intake	61.3%	92.6%	92.7%	0.1%	0.3%
MFG South Dam	1.1%	100.0%	100.0%	0.0%	0.0%
MFG Misc:Eng/ 315kV/Site Rest./logistic	1.1%	90.3%	89.2%	-1.1%	-1.3%
MFGen - Overall	100.0%	95.3%	94.4%	-0.9%	-0.9%
* Adjusted for MFGen rollway installation schedule		94.3%	94.4%	0.1%	0.1%

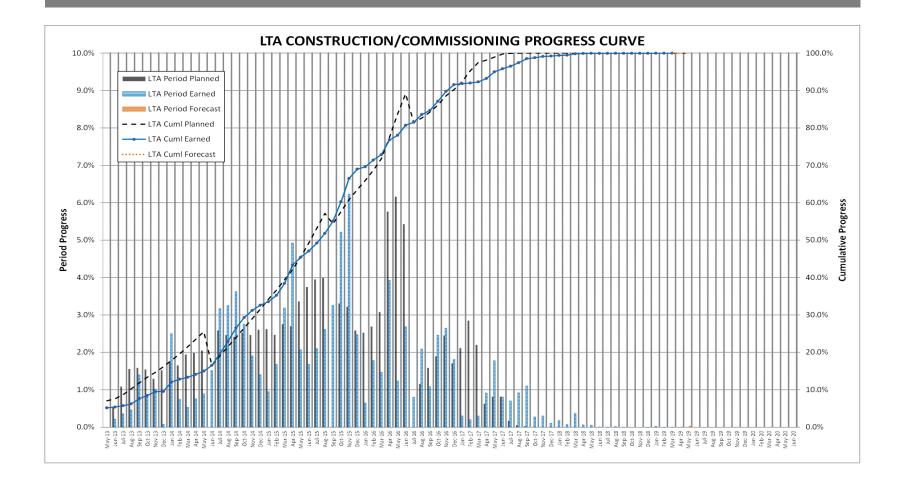
III. Labrador Island Transmission Link



III. Labrador Island Transmission Link

	Weight	<u>March</u>	December 2018		
March 2019	Factor %	<u>Plan</u>	<u>Earned</u>	<u>Variance</u>	<u>Variance</u>
Sub-Project	Α	В	С	D = C - B	E
LITL Muskrat Falls Converter	6.1%	100.0%	99.2%	-0.8%	-1.0%
LITL Soldiers Pond Converter	5.5%	100.0%	99.2%	-0.8%	-0.9%
LITL HVdc Transmission Line Seg 1/2	26.8%	100.0%	100.0%	0.0%	0.0%
LITL HVdc Transmission Line Seg 3/4/5	34.2%	100.0%	100.0%	0.0%	0.0%
LITL Electrode Sites	0.8%	100.0%	100.0%	0.0%	0.0%
LITL Transition Compounds	1.7%	100.0%	100.0%	0.0%	0.0%
LITL SOBI Cable Crossing	17.7%	100.0%	100.0%	0.0%	0.0%
LITL Soldiers Pond Switchyard	2.7%	100.0%	100.0%	0.0%	0.0%
LITL Soldiers Pond Sync. Condensors	3.1%	100.0%	99.6%	-0.4%	-0.4%
LITL Misc	1.4%	100.0%	98.1%	-1.9%	-2.9%
LITL- Overall	100.0%	100.0%	99.9%	-0.1%	-0.2%

IV. Labrador Transmission Assets



IV. Labrador Transmission Assets

	Weight	<u>March</u>	December		
<u>March 2019</u>	<u>Factor %</u>	<u>Plan</u>	<u>Earned</u>	<u>Variance</u>	2018 Variance
Sub-Project	Α	В	С	D = C - B	E
LTA HVac Transmission Line Seg1/2 - MF to CF	62.8%	100.0%	100.0%	0.0%	0.0%
LTA Churchill Falls Switchyard	21.7%	100.0%	100.0%	0.0%	0.0%
LTA Muskrat Falls Switchyard	13.4%	100.0%	99.95%	0.05%	-0.1%
LTA Misc	2.1%	100.0%	98.6%	-1.4%	-2.4%
LTA - Overall	100.0%	100.0%	99.97%	0.03%	-0.1%



Annex D

Project Milestone Schedule Forecast

- I. Muskrat Falls Generation
- II. Labrador Island Transmission Link
- III. Labrador Transmission Assets

I. Muskrat Falls Generation

March 2019	Planned Date June 2017	March 2019 Actual/Forecast
Project Sanction	17-Dec-12	Complete
North Spur Works Ready for Diversion	31-Oct-16	Complete
River Diversion Complete	15-Feb-17	Complete
Reservoir Impoundment Complete	1-Nov-19	14-Aug-19
Powerhouse Unit 1 Commissioned - Ready for Operation	19-Dec-19	9-Dec-19
First Power from Muskrat Falls	2-Nov-19	15-Oct-19
Powerhouse Unit 2 Commissioned - Ready for Operation	3-Mar-20	21-Feb-19
Powerhouse Unit 3 Commissioned - Ready for Operation	9-Jun-20	6-May-20
Powerhouse Unit 4 Commissioned - Ready for Operation	14-Aug-20	20-Jul-20
Full Power from Muskrat Falls	14-Aug-20	20-Jul-20
Commissioning Complete - Commissioning Certificate Issued	1-Sep-20	1-Sep-20

II. Labrador Island Transmission Link

March 2019	Planned Date June 2017	March 2019 Actual/forecast
Project Sanction	17-Dec-12	Complete
SOBI Cable Systems Ready	9-Dec-16	Complete
Soldiers Pond Switchyard Ready to Energize	31-Aug-17	Complete
Ready for Power Transmission (LTA)	31-Dec-17	Complete
Muskrat Falls Converter Station Ready to Energize (Pole 1)	1-Jun-18	Complete
HVdc Transmission Line Construction Complete	31-Dec-17	Complete
Soldier's Pond Converter Station Ready to Energize (Pole 1)	1-Jun-18	Complete
1ST Power Transfer (Pole 1)	1-Jul-18	Completion of 45 megawatt heat run
Soldiers Pond Synchronous Condenser Ready for Operation	1-Jun-18	¹ 28-September-19
Ready for Power Transmission (Low Load Testing Complete Pole 1)	1-Dec-18	² 15-Jun-19
Muskrat Falls and Soldiers Pond Converter Stations - Bipole Dynamic Testing		
Complete	31-Mar-19	³ 6-Mar-20
Commissioning Complete - Commissioning Certificate Issued	1-Sep-20	1-Sep-20

^{1&}lt; 1 month forecast date change since Q4 reporting period due to rotor lift on Unit 2 and hydrogen piping system; additional delay being assessed;

² 5 month forecast date change since Q4 2018 reporting period.

³ < 1 month forecast change since Q4 2018 reporting period.

III. Labrador Transmission Assets

March 2019	June 2017 Budget Planned Date	March 2019 Actual/Forecast
Project Sanction	17-Dec-12	Complete
		Complete: Turnover of HVac TL
HVac Transmission Line Construction Complete	31-May-17	and all subsystems complete
Churchill Falls Switchyard Ready to Energize	30-Nov-17	Complete
Muskrat Falls Switchyard Ready to Energize	30-Nov-17	Complete
Ready for Power Transmission	31-Dec-17	Complete
Commissioning Complete - Commissioning Certificate Issued	1-Sep-20	1-Sep-20



End of Report



Muskrat Falls Project Monthly Report May 2019

July 23, 2019



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1.0 Monthly Report Overview

This report¹ provides the monthly update for May 2019 on the following projects associated with the Muskrat Falls development:

- the 824 megawatt (MW) hydroelectric development at Muskrat Falls (the Muskrat Falls hydroelectric generating facility);
- two 315 kilovolt (kV) High Voltage alternating current (HVac) transmission lines between Muskrat Falls and Churchill Falls (the Labrador Transmission Assets); and
- the 1,100 km long High Voltage direct current (HVdc) transmission line between Muskrat Falls and Soldiers Pond (the Labrador-Island Transmission Link).

Included in this report are details on construction activities and costs, safety and environmental activities, procurement information, and details on stakeholder and community engagement initiatives during the reporting period. The report also provides detailed statistical tables summarizing employment and expenditure benefits generated from the Muskrat Falls development.

2.0 Construction Progress this Month

Construction of the Muskrat Falls Project progressed during the month on both the generation and transmission components. As of the end of May:

- overall construction of the Muskrat Falls Project is 98% complete;
- the Muskrat Falls generation project is 95% complete;
- both the Labrador-Island Transmission Link and the transmission line connecting Churchill Falls to Muskrat Falls remained at over 99% complete.

3.0 Construction Update

3.1 Muskrat Falls Hydroelectric Generating Facility

The following outlines some of the construction activities for the components of the Muskrat Falls hydroelectric generation facility undertaken in May:

- Pennecon Heavy Civil Ltd. continued to undertake civil work on the Intake and Powerhouse; with achievement of pit free for Units 3 and 4.
- Andritz Hydro Canada Inc. completed the Unit 1 tower assembly, lifted it into the pit and installed the generator shaft; Unit 2 stator frame installation is ongoing.
- Cahill-Ganotec continued mechanical completion and commissioning activities throughout the Powerhouse.
- Andritz Hydro Canada Inc. continued assembly of the trash rack cleaning machine.

-

¹ This report is prepared by Lower Churchill Management Corporation (LCMC), the Nalcor Energy subsidiary responsible for managing the construction of the Muskrat Falls hydroelectric generating facility, the Labrador Transmission Assets and the Labrador-Island Transmission Link.



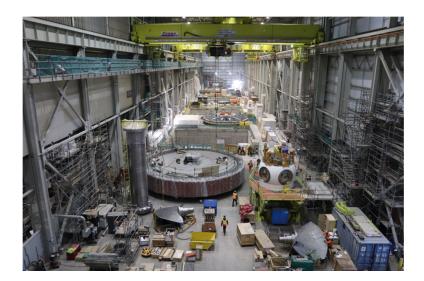
Generating facility – aerial view looking upstream with Powerhouse on the left, Spillway in the centre and North Dam on the right.



Powerhouse and Tailrace Channel



Unit 1 in the Powerhouse



Assembly of turbine and generator parts in the South Service Bay of the Powerhouse

Final Concrete Poured in the Powerhouse

Thanks to the tremendous efforts of our tradespeople, contractors, unions and team members, all the concrete required for the Muskrat Falls Powerhouse has now been poured. A total of 168,000 m³ of concrete was poured in the Powerhouse and 147,000 m³ was poured for the Intake (the area where the water enters the Powerhouse) for a total of 315,000 m³ of concrete placed in the generation facility. That's equivalent to about eight CN towers. This significant milestone was made possible by the hard work and dedication of those working on the Muskrat Falls generation project.



3.2 Labrador Transmission Assets (LTA)

Construction of LTA is complete. Activities on the LTA continued during the month with work on punch list items at both the Churchill Falls and Muskrat Falls switchyards.

3.3 Labrador-Island Transmission Link (LIL)

Construction of the transmission line from Muskrat Falls to Soldiers Pond is complete. Activities for LIL continued during the month and included:

- Continuation of HVdc Control System software development.
- Continuation of work on punch list items at the Soldiers Pond AC Switchyard.
- Continuation of Pole 1 and Pole 2 punch list items at the Muskrat Falls and Soldiers Pond Converter Stations.
- Continuation of work on punch list items at the Forteau Point and Shoal Cove Transition Compounds.
- Continuation of static and dynamic commissioning activities at the Soldiers Pond Synchronous Condenser site.

3.4 Construction Cost Summary

The current facilities capital cost estimate of the Muskrat Falls Project is \$10.1 billion. The total cost including interest during construction and capitalized financing costs is \$12.7 billion (see Table 1).

3.4.1 Incurred Cost Overview

Table 1 summarizes the incurred costs for the project for the month of May and for the project to date. Incurred costs refer to the value of work performed during the period regardless of it being paid during the current period or at some point in the future.

Table 1 - Estimate and Incurred costs for Muskrat Falls Project to May 2019 (Costs in millions of CAD \$)*

Project Component	Current Cost Estimate	Incurred Cost Current Month	Incurred Cost Project to Date	
Muskrat Falls Hydroelectric Generating Facility	\$5,500	\$37	\$4,851	
Labrador Transmission Assets	\$904	\$6.9	\$863	
Labrador-Island Transmission Link	\$3,714	\$9.3	\$3,525	
Total	\$10,118	\$53.2	\$9,239	

^{*} Value excludes interest during construction and capitalized financing costs.

3.4.2 Monthly Expenditure Overview

- Total expenditures paid for the Muskrat Falls Project were over \$86 million in May 2019. This included almost \$34 million paid to Newfoundland and Labrador businesses.
- From January 2013 to the end of the reporting period in May 2019, just under \$3.0 billion has been spent directly with Newfoundland and Labrador-based companies.
- The cumulative expenditures made to NL business since Project Sanction is illustrated in Figure 1.

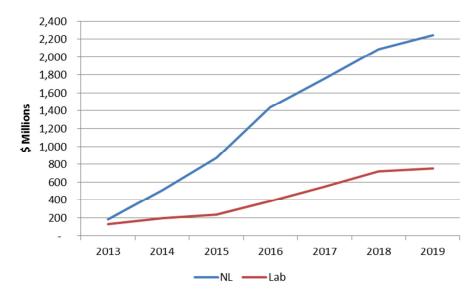


Figure 1 - Cumulative Expenditures to Newfoundland and Labrador Businesses (Jan 2013 to May 2019)

4.0 Safety and Environment

4.1 Safety

LCP and all contractors working on the Muskrat Falls Project have a relentless commitment to the safety of workers and the public. Table 2 outlines the Health and Safety indicators and measurements for the month of May and for the project to date.

Table 2 - Health and Safety Indicators and Measurements - May 2019 and Project to Date

Indicator	May 2019	Project to Date
Orientations completed	71	56,608
Safety Step Backs completed	5,939	1,920,666
Work site inspections	257	99,649
Lost-time injuries	0	16
Medical aid incidents	0	114

4.2 Environment

The LCP Environment and Regulatory Compliance (ERC) Team is committed to maintaining a high standard of environmental responsibility that will help to sustain a diverse and healthy environment for generations of Newfoundlanders and Labradorians. Hiring local experts is one way the ERC Team maintains this standard.

Tony Parr is an Environmental Technologist with Stantec, one of the key consulting companies that has assisted with LCP's environmental management programs. Tony is a member of the NunatuKavut Community Council, originally from Happy Valley – Goose Bay, and brings his love of the land to all that he does. Tony has a Bachelor of Science in Geography from Memorial University and Geographic Information Systems (Graduate Program) from Nortech College.

Tony's relaxed manner with his clients and his team and dedication to safety, makes people want to work with him. On the LCP, Tony has worked in the areas of Avifauna Management, Historic Resources Management, and Regulatory Compliance and Environmental Effects Monitoring. Tony's responsibilities as Discipline Lead/Team Lead ranged from surveying animal winter tracks on snowshoe, preparing wire snares for river otter hair snagging, surveying breeding song birds from helicopter, and participating in the recovery of artifacts with archaeological teams. Tony also played a key role in the capture of caribou for fitting with satellite telemetry collars, so their movements could be tracked over time and distance. The data collected from this program helped to provide information on how the caribou reacted to the construction of the LCP hydroelectric development and transmission lines.

No two workdays are alike for Tony. When he is not in the office finalizing a report or preparing an environmental monitoring plan, Tony can most often be found in the field—leading teams on large-scale ecological surveys (e.g., furbearers, avifauna, moose, caribou and Newfoundland marten). Tony is always prepared for whatever being in the field entails. It could be undertaking field surveys through dense Labrador forests chased by millions of mosquitos to sitting in the observer/navigator seat in a helicopter for caribou surveying and collaring.

5.0 Employment, Benefits and Community Engagement

This section provides information on employment benefits generated during the month as well as details on some of the community activities undertaken during the month. Some of these activities are part of commitments made by LCP through the Benefits Strategy with the provincial government, the Impacts and Benefits Agreement (IBA) with Innu Nation, the Gender Equity and Diversity Program, and provincial and federal environmental regulatory commitments.

5.1 Employment Highlights

The employment highlights for the month of May are summarized below. Detailed employment information and statistics are outlined in Section 8.

- In May, over 290,000 hours were worked by 1,996 individuals on the projects, including over 240,000 hours of work in Labrador.
- During the month of May, 1,836 residents of Newfoundland and Labrador were employed on the projects, representing 93 per cent of the total persons employed.
- In May, there were 1,611 people working in Labrador, of whom 495 were Labrador residents (approximately 30 per cent). Of these 495 Labrador residents, 173 self-identified as a member of a Labrador Aboriginal group (approximately 35 per cent). A breakdown of the employment in Labrador by affiliation is shown in Figure 2 below.

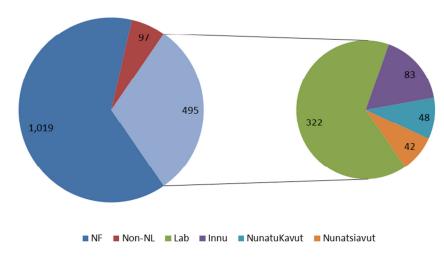


Figure 2 - Employment in Labrador by Affiliation (May 2019)

5.2 Gender Equity and Diversity

5.2.1 Employment of Women

In May, 308 women were working on all project components, comprising approximately 13 per cent of the total workforce. Of these, 90 were working in construction, 11 in engineering, 119 in project management, and 88 in project support. Of the 308 women working on the project, 290 of them are Newfoundland and Labrador residents. Table 3 below breaks down the types of jobs held by female workers during May.

Table 3 - Types of Jobs Worked by Females (May 2019)

Job Type	Number
Camp and Catering Staff	53
Administrative Staff	41
Financial/Accounting Staff	26
Engineering	26
General Labourer	23
Other professional	23
Student	22
Other trades	21
EMR/security	16
Procurement	12
H&S Staff	11
HR Staff	8
Other technical	7
Environmental Staff	5
Electrician	5
Carpenter/Scaffolder	4
Civil Technologist	3
Heavy Equipment Operator	2
Total	308

5.3 Employment of Students and Apprentices

LCP supports the hiring of students and apprentices. Statistical data on the hiring of students and apprentices is provided in the following sections.

5.3.1 Employment of Students

In the first quarter of 2019, there were 40 students working on the Muskrat Falls Project. Figure 3 below illustrates the quarterly time profile of students working on the Project between the first quarter of 2016 and the end of the first quarter of 2019.

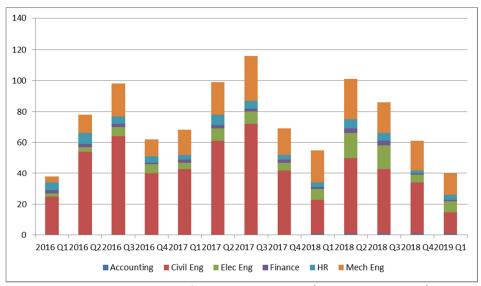


Figure 3 - Employment of Students by Quarter (Q1 2016 to Q1 2019)

5.3.2 Employment of Apprentices

During the first quarter of 2019, 232 apprentices were working on the project, including 30 females. Figure 4 below illustrates the quarterly time profile of apprentices working on the Project between the first quarter of 2016 and the end of the first quarter of 2019.

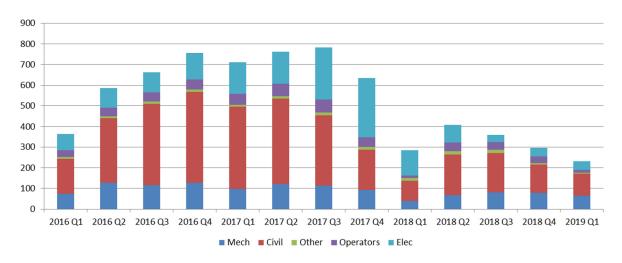


Figure 4 - Employment of Apprentices by Quarter (Q1 2016 to Q1 2019)

5.4 Labrador Innu Initiatives - Impacts and Benefits Agreement (IBA) Implementation Activities

During the month of May, 88 Innu were employed at Muskrat Falls and transmission line sites in Labrador. Innu employees were working in a wide range of occupations, including construction trades, labourers, camp accommodations and food services. The Innu workforce included persons occupying management, apprenticeship, foreperson and shop steward positions.

5.5 Community Engagement

LCP has established multiple venues for members of the public to ask questions, seek employment information, and get details about the Muskrat Falls development. LCP has a website that provides information on project construction activities (muskratfalls.nalcorenergy.com). In addition, people can contact LCP through the toll-free number, by email, or by visiting the project office in Happy Valley-Goose Bay.

Nalcor also uses Facebook @NalcorEnergy to share updates about construction activities as well as to provide information to stakeholders living around the Muskrat Falls facility in central Labrador.

6.0 Definitions

Term	Definition
Benefits Strategy	Lower Churchill Construction Project Benefits Strategy as agreed by the Province of Newfoundland and Labrador and LCP.
Expenditures	Expenditures for the month are defined as those expenditures from invoices which have been approved for payment during the month.
Incurred Costs	Value of work performed during the period (month) regardless of it being paid during the current period or at some point in the future.
Industry Category	Based on the North American Industry Classification System (NAICS) and used to categorize companies for expenditure reporting.
Island or NF	Refers to the residency of employees, the location of work completed or the location of a company; includes residents from, work done on or companies located on the island portion of NL.
NOC Code	Occupational codes from the National Occupational Classification system, which is the standard system for classifying jobs in Canada. It is a hierarchical structure with four levels of classifications. Both the 2-digit and 4-digit classifications are used in this report.
Person Hours	Hours worked by individuals on the project.
Persons Employed	Any person who has worked at any time on the Project during the time period referenced.
Project to Date	Cumulative totals for the period from February 1, 2013 up to the end of the current month.
Residents	Residents of Newfoundland and Labrador who meet the requirements as defined in the Benefits Strategy.

7.0 Abbreviations and Acronyms

Abbreviation/Acronym	Definition
BMRS	Benefits Monitoring and Reporting System
C&A	Construction and Assembly
CBTU	Canada's Building Trades Unions
CLC	Community Liaison Committee
CNA	College of the North Atlantic
CPR	Cardiopulmonary Resuscitation
CTD	Centre Transition Dam
E&D	Engineering and Design
EMC	Environmental Management Committee
EMS	Environmental Management System
EPP	Emergency Preparedness Plans
ERC	Environment and Regulatory Compliance
FAT	Factory Acceptance Testing
GIS	Gas Insulated Switchgear
GPR	Ground Penetrating Radar
HDD	Horizontal Directional Drilling
HHRA	Human Health Risk Assessment
HVac	High voltage AC transmission
HVdc	High voltage DC transmission
IBA	Impacts and Benefits Agreement
INT	International (Location of Work or Company)
ISO	International Standards Organization
kV	Kilovolt
LATP	Labrador-Aboriginal Training Partnership
LCP	Lower Churchill Project
LIL	Labrador-Island Transmission Link
LRM	Long Range Mountains
LTA	Labrador Transmission Assets
MeHg	Methylmercury
MFG	Muskrat Falls Hydroelectric Generation Facility
MW	Megawatt
NLESA	Newfoundland and Labrador Endangered Species Act
NLOWE	Newfoundland and Labrador Organization of Women Entrepreneurs
OAWA	Office to Advance Women Apprentices
ОС	Other Canada
OSEM	On-site Environmental Monitor
PEGNL	Professional Engineers and Geoscientists of Newfoundland and Labrador
PM	Project Management
RCC	Roller-compacted concrete
Res	Residents of Newfoundland and Labrador
RFP	Request for Proposal
ROW	Right of Way
SOBI	Strait of Belle Isle
T&G	Turbine and Generator
THg	Total Mercury
TTO	Transition to Operations

8.0 Employment Benefits

All information on employment is provided by both person hours and the number of persons employed for the following categories:

- Total employment
- Employment by NOC Code
- Employment by Location of Work
- Employment by Aboriginal Affiliation
- Employment by Gender

8.1 Total Employment

Tables 4 through 6 break out the project employment in both person hours and persons employed by location of work and residency.

Table 4 - Person Hours of Employment by Location of Work and Residency (May 2019)

	Residency								
	Isla	nd	Labra	dor	Other (Canada	Non-Ca	nadian	
Work Location	at Location	% of Total	Total						
Island	38,648	82.5%	416	0.9%	6,460	13.8%	1,340	2.9%	46,864
Labrador	163,627	67.4%	62,836	25.9%	15,275	6.3%	1,200	0.5%	242,938
Other Canada	-	0.0%	-	0.0%	746	100.0%	-	0.0%	746
International	-	0.0%	-	0.0%	260	100.0%	-	0.0%	260
Total	202,275	69.6%	63,252	21.8%	22,741	7.8%	2,540	0.9%	290,808

Table 5 - Person Hours of Employment by Location of Work and Residency (Project to Date)

				Reside	ncy				
	Islan	d	Labra	ador	Other (Canada	Non-Ca	nadian	
Work Location	at Location	% of Total	Total						
Island	6,323,924	80.7%	200,040	2.6%	1,169,729	14.9%	139,932	1.8%	7,833,625
Labrador	21,366,609	58.6%	9,611,470	26.4%	5,070,059	13.9%	399,995	1.1%	36,448,133
Other Canada	8,940	2.3%	-	0.0%	364,624	95.7%	7,618	2.0%	381,182
International	-	0.0%	-	0.0%	9,950	12.4%	69,997	87.6%	79,947
Total	27,699,473	61.9%	9,811,510	21.9%	6,614,362	14.8%	617,542	1.4%	44,742,887

Table 6 - Number of Persons Employed by Location of Work and Residency (May 2019)

	Residency												
	Isla	nd	Labr	ador	Other (Canada	Non-Ca	nadian					
Work Location	at Location	%of Total	Total										
Island	320	87.0%	2	0.5%	39	10.6%	7	1.9%	368				
Labrador	1,019	63.3%	495	30.7%	91	5.6%	6	0.4%	1,611				
Other Canada	-	0.0%	-	0.0%	16	100.0%	-	0.0%	16				
International	-	0.0%	-	0.0%	1	100.0%	-	0.0%	1				
Total	1,339	67.1%	497	24.9%	147	7.4%	13	0.7%	1,996				

8.2 Employment by NOC Code

Tables 7 and 8 summarize project employment by 2-digit NOC Code. Appendix A contains an overview of the methodology used to capture employment by job title and how that information is converted to NOC codes. In addition, occupational information by 4-digit NOC code as well as information on employment by NOC code and gender, Aboriginal affiliation and for residents of Labrador is also provided in Appendix A.

Table 7 - Person Hours of Employment by 2-Digit NOC Code (May 2019 and Project to Date)

	Current Month						to Date	
2-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
00 - Senior management occupations	433	-	1,741	2,174	133,811	8,008	81,221	223,040
01-05 - Specialized middle management occupations	2,627	793	3,273	6,693	522,691	122,088	403,289	1,048,068
07-09 - Middle management occupations in trades, transportation,	1 100		2.070	4.070	671 500	12 240	261 501	045 410
production and utilities	1,100	-	3,878	4,978	671,580	12,249	261,581	945,410
11 - Professional occupations in business and finance	1,543	-	4,244	5,787	208,939	18,308	328,528	555 <i>,</i> 775
12 - Administrative and financial supervisors and administrative occupations	3,103	962	6,701	10,766	606,584	190,446	640,810	1,437,839
13 - Finance, insurance and related business administrative occupations	200	80	1,272	1,552	106,092	15,600	138,833	260,524
14 - Office support occupations	1,402	-	338	1,739	327,871	72	5,390	333,332
21 - Professional occupations in natural and applied sciences	8,745	3,551	26,109	38,404	2,034,193	723,505	1,859,622	4,617,321
22 - Technical occupations related to natural and applied sciences	6,505	2,502	9,577	18,583	1,507,892	386,810	752,803	2,647,505
32 - Technical occupations in health	2,568	-	200	2,768	303,075	-	4,548	307,623
41 - Professional occupations in law and social, community and government	603	492	1.731	2,826	228,851	106,337	194,482	529,670
services	003	492	1,/31	2,820	220,031	100,557	194,462	323,070
43 - Occupations in front-line public protection services	2,113	-	72	2,185	58,492	-	3,339	61,831
63 - Service supervisors and specialized service occupations	2,076	-	-	2,076	290,326	-	7,472	297,798
65 - Service representatives and other customer and personal services	7,450	278		7,728	599,467	12,981	6,593	619,040
occupations	7,430	278	_	7,728	333,407	12,361	0,393	013,040
67 - Service support and other service occupations, n.e.c.	13,475	-	-	13,475	1,625,946	-	4,142	1,630,087
72 - Industrial, electrical and construction trades	100,845	11	3,695	104,550	12,804,360	12,800	234,249	13,051,408
73 - Maintenance and equipment operation trades	23,441	-	275	23,716	2,280,275	2,193	48,983	2,331,450
74 - Other installers, repairers and servicers and material handlers	2,985	-	716	3,701	327,391	48	26,164	353,603
75 - Transport and heavy equipment operation and related maintenance	16,300	_	8	16,308	5,916,625	2,145	112,067	6,030,837
occupations	10,300		0	10,308	3,910,023	2,143	112,007	0,030,037
76 - Trades helpers, construction labourers and related occupations	19,769	-	229	19,998	6,642,301	3,995	111,210	6,757,506
82 - Supervisors and technical occupations in natural resources, agriculture					542,351		7,696	550,046
and related production	_	-	-	-	342,331	-	7,090	330,040
86 - Harvesting, landscaping and natural resources labourers	167	-	-	167	81,160	60	6,723	87,943
92 - Processing, manufacturing and utilities supervisors and central control	20	_	616	636	37,660	_	27,569	65,228
operators	20		010	030	37,000		27,309	03,228
All Occupation Categories	217,467	8,668	64,673	290,808	37,857,932	1,617,642	5,267,313	44,742,886

Table 8 - Residents Hired by 2-Digit NOC Code (May 2019)

		C&A			E&D			PM			Total	
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
2-Digit NOC	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
00 - Senior management occupations	2	3	67%	-	-	0%	7	11	64%	9	14	64%
01-05 - Specialized middle management occupations	15	18	83%	2	5	40%	24	26	92%	41	49	84%
07-09 - Middle management occupations in trades,	8	8	100%			0%	14	19	74%	22	27	81%
transportation, production and utilities	0	٥	100%	-		0%	14	19	74%	22	27	81%
11 - Professional occupations in business and finance	7	9	78%	-	-	0%	31	31	100%	38	40	95%
12 - Administrative and financial supervisors and	16	23	70%	5	5	100%	32	40	80%	53	68	78%
administrative occupations	10	23	70%	3	3	100/6	32	40	8076	33	00	70/0
13 - Finance, insurance and related business	1	1	100%	1	1	100%	12	12	100%	14	14	100%
administrative occupations	_	-		_	-							
14 - Office support occupations	10	10	100%	-	-	0%	4	4	100%	14	14	100%
21 - Professional occupations in natural and applied	47	64	73%	6	27	22%	146	178	82%	199	269	74%
sciences		•										,-
22 - Technical occupations related to natural and applied	40	48	83%	9	10	90%	71	80	89%	120	138	87%
sciences		45	000/			00/			4000/	4.5	4.0	0.40/
32 - Technical occupations in health	14	15	93%	-	-	0%	1	1	100%	15	16	94%
41 - Professional occupations in law and social, community	2	4	50%	1	3	33%	16	16	100%	19	23	83%
and government services	12	12	1000/			0%	4	4	1000/	1.1	1.4	1000/
43 - Occupations in front-line public protection services	13	13	100%	-	-	υ%	1	1	100%	14	14	100%
63 - Service supervisors and specialized service	9	13	69%	-	-	0%	-	-	0%	9	13	69%
occupations 65 - Service representatives and other customer and												
personal services occupations	56	57	98%	1	1	100%	-	-	0%	57	58	98%
67 - Service support and other service occupations, n.e.c.	101	101	100%	_	_	0%	_	_	0%	101	101	100%
72 - Industrial, electrical and construction trades	633	651	97%	_	1	0%	46	48	96%	679	700	97%
73 - Maintenance and equipment operation trades	129	134	96%	_	1	0%	7	7	100%	136	141	96%
74 - Other installers, repairers and servicers and material	129	134	30%	_	-	0/0	,	,	100%	130	141	30%
handlers	18	18	100%	-	-	0%	5	5	100%	23	23	100%
75 - Transport and heavy equipment operation and												
related maintenance occupations	111	112	99%	-	-	0%	2	2	100%	113	114	99%
76 - Trades helpers, construction labourers and related							_	_				
occupations	143	143	100%	-	-	0%	6	6	100%	149	149	100%
82 - Supervisors and technical occupations in natural			00/			00/			00/			00/
resources, agriculture and related production	-	-	0%	-	-	0%	-	-	0%	-	-	0%
86 - Harvesting, landscaping and natural resources	1	1	100%	_		0%	_	_	0%	1	1	100%
labourers	1	1	100%	_	-	U70	_	-	U70	1	1	100%
92 - Processing, manufacturing and utilities supervisors	_	_	0%	_	_	0%	10	10	100%	10	10	100%
and central control operators			3 /0				10	10				
All Occupation Categories	1,376	1,446	95%	25	53	47%	435	497	88%	1,836	1,996	92%

8.3 Employment by Location of Work

Table 9 - Person Hours of Employment by Location of Work (May 2019 and Project to Date)

		Current Period			Project to Date						
Work Location	C&A	E&D	PM	Total	C&A	E&D	PM	Total			
NL											
Island	5,675	5,870	35,319	46,864	3,610,290	1,120,719	3,102,616	7,833,625			
Labrador	211,566	2,550	28,823	242,938	33,995,640	328,529	2,124,185	36,448,354			
Total NL	217,241	8,420	64,142	289,802	37,605,931	1,449,248	5,226,801	44,281,979			
Other Canada	227	249	271	746	187,448	168,285	25,229	380,961			
Total Canada	217,467	8,668	64,413	290,548	37,793,378	1,617,532	5,252,029	44,662,940			
International	-	-	260	260	64,554	109	15,284	79,947			
All Locations	217,467	8,668	64,673	290,808	37,857,932	1,617,641	5,267,313	44,742,887			

Table 10 - Residents Hired by Location of Work (May 2019)

		C&A		E&D				PM			Total	
Work Location	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total
NL												
Island	43	44	98%	20	36	56%	259	288	90%	322	368	88%
Labrador	1,333	1,399	95%	5	6	83%	176	206	85%	1,514	1,611	94%
Total NL	1,376	1,443	95%	25	42	60%	435	494	88%	1,836	1,979	93%
Other Canada	-	3	0%	-	11	0%	-	2	0%	-	16	0%
Total Canada	1,376	1,446	95%	25	53	47%	435	496	88%	1,836	1,995	92%
International	-	-	0%	-	-	0%	-	1	0%	-	1	0%
Total	1,376	1,446	95%	25	53	47%	435	497	88%	1,836	1,996	92%

8.4 Employment by Aboriginal Affiliation

Table 11 - Person Hours of Employment by Aboriginal Affiliation (May 2019 and Project to Date)

	Current Period Project to Date							
Aboriginal Group	C&A	E&D	PM	Total	C&A	E&D	PM	Total
Labrador Innu ^(a)	10,146	-	379	10,524	1,400,522	-	34,494	1,435,016
Nunatsiavut ^(a)	5,679	-	85	5,764	1,001,385	23,146	37,515	1,062,046
NunatuKavut ^(a)	6,503	270	515	7,288	1,289,920	14,560	42,529	1,347,008
Other NL Aboriginal ^(a)	3,473	-	224	3,697	539,103	-	39,730	578,833
Aboriginal - Other Canada	310	-	-	310	202,877	-	2,362	205,239
Non-Aboriginal ^(b)	191,357	8,398	63,470	263,225	33,497,430	1,580,186	5,037,127	40,114,744
All Groups	217,467	8,668	64,673	290,808	37,931,237	1,617,892	5,193,757	44,742,886

⁽a) Also NL residents

Table 12 - Persons Employed by Aboriginal Affiliation (May 2019)

	C&	A	E8	dD.	PI	M	Tot	al
Aboriginal Group	Persons	%	Persons	%	Persons	%	Persons	%
Residents								
Labrador Innu	80	5.8%	-	0.0%	3	0.7%	83	4.5%
Nunatsiavut	42	3.1%	-	0.0%	1	0.2%	43	2.3%
NunatuKavut	45	3.3%	1	4.0%	3	0.7%	49	2.7%
Other Aboriginal	24	1.7%	-	0.0%	1	0.2%	25	1.4%
All Aboriginal	191	13.9%	1	4.0%	8	1.8%	200	10.9%
Non-Aboriginal	1,185	86.1%	24	96.0%	427	98.2%	1,636	89.1%
Total	1,376	100%	25	100%	435	100%	1,836	100%
Non Residents		<u> </u>				-		
Aboriginal – Canada	2	2.9%	-	0.0%	-	0.0%	2	1.3%
Non-Aboriginal	68	97.1%	28	100.0%	62	100.0%	158	98.8%
Total	70	100%	28	100%	62	100%	160	100%
Summary		<u>. </u>				<u>. </u>		
Aboriginal	193	13.3%	1	1.9%	8	1.6%	202	10.1%
Non-Aboriginal	1,253	86.7%	52	98.1%	489	98.4%	1,794	89.9%
Total	1,446	100%	53	100%	497	100%	1,996	100%

⁽b) Includes residents and non-residents

Tables 13 through 15 summarize the employment of Aboriginal people and non-Aboriginal people both in terms of hours worked and persons employed by location of work during the month and for the Project to Date.

Table 13 - Person Hours of Employment by Location of Work and Aboriginal Affiliation (May 2019)

	Labrador	Innu	Nunatuk	avut	Nunatsi	avut	Other Ab	original	Non-Abo	riginal	
Work	At		At		At		At		At		
Location	Location	%	Location	%	Location	%	Location	%	Location	%	Total
Island	-	0.0%	270	0.6%	146	0.3%	224	0.5%	46,224	98.6%	46,864
Labrador	10,524	4.3%	7,018	2.9%	5,618	2.3%	3,593	1.5%	216,186	89.0%	242,938
Other Canada	-	0.0%	-	0.0%	-	0.0%	190	25.5%	556	74.5%	746
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	260	100.0%	260
All Locations	10,524	3.6%	7,288	2.5%	5,764	2.0%	4,007	1.4%	263,225	90.5%	290,808

Table 14 - Person Hours of Employment by Location of Work and Aboriginal Affiliation (Project to Date)

	Labrador Innu		NunatuKavut		Nunatsiavut		Other Aboriginal		Non-Abor		
Work Location	At Location	%	At Location	%	At Location	%	At Location	%	At Location	%	Total
Island	2,961	0.0%	67,831	0.9%	25,095	0.3%	77,925	1.0%	7,659,813	97.8%	7,833,625
Labrador	1,432,055	3.9%	1,279,177	3.5%	1,036,951	2.8%	704,364	1.9%	31,995,586	87.8%	36,448,133
Other Canada	-	0.0%	-	0.0%	-	0.0%	1,783	0.5%	379,399	99.5%	381,182
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	79,947	100.0%	79,947
All Locations	1,435,016	3.2%	1,347,008	3.0%	1,062,046	2.4%	784,072	1.8%	40,114,745	89.7%	44,742,887

Table 15 - Number of Persons Employed by Location of Work and Aboriginal Affiliation (May 2019)

	Labrador	Innu	NunatuK	avut	Nunatsi	avut	Other Abo	riginal	Non-Ab	original	
Work	At		At		At		At		At		
Location	Location	%	Location	%	Location	%	Location	%	Location	%	Total
Island	-	0.0%	1	0.3%	1	0.3%	1	0.3%	365	99.2%	368
Labrador	83	5.2%	48	3.0%	42	2.6%	25	1.6%	1,413	87.7%	1,611
Other Canada	-	0.0%	-	0.0%	-	0.0%	1	6.3%	15	93.8%	16
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	1	100.0%	1
All Locations	83	4.2%	49	2.5%	43	2.2%	27	1.4%	1,794	89.9%	1,996

8.5 Employment by Gender

Table 16 - Person Hours of Employment by Gender (May 2019 and Project to Date)

		Curren	t Period		Project to Date					
Gender	C&A	E&D	PM	Total	C&A	E&D	PM	Total		
Female	24,104	1,580	14,273	39,957	3,757,116	235,950	1,124,222	5,117,288		
Male	193,363	7,088	50,400	250,851	34,174,121	1,381,942	4,069,535	39,625,598		
Total	217,467	8,668	64,673	290,808	37,931,237	1,617,892	5,193,757	44,742,886		

Table 17 - Persons Employed by Gender (May 2019)

	C8	kΑ	E8	àD	P	M	Tot	tal
Gender	Persons	%	Persons	%	Persons	%	Persons	%
Residents								
Female	169	12.3%	8	32.0%	113	26.0%	290	15.8%
Male	1,207	87.7%	17	68.0%	322	74.0%	1,546	84.2%
Total	1,376	100%	25	100%	435	100%	1,836	100%
Non Residents								
Female	9	12.9%	3	10.7%	6	9.7%	18	11.3%
Male	61	87.1%	25	89.3%	56	90.3%	142	88.8%
Total	70	100%	28	100%	62	100%	160	100%
Summary								
Female	178	12.3%	11	20.8%	119	23.9%	308	15.4%
Male	1,268	87.7%	42	79.2%	378	76.1%	1,688	84.6%
Total	1,446	100%	53	100%	497	100%	1,996	100%

9.0 Expenditures and Procurement

Expenditures are captured through direct entry of expenditure breakdowns by contractors which enter directly into the benefits system. For all other contractors, a listing of payments approved during the month from the project's financial accounting system is used. In all cases, expenditure totals are those that are approved for payment during the month.

9.1 Expenditures by Location of Company and Industry Category

Table 18 - Total Value of Expenditures by Location of Company and Industry Category (\$CDN; May 2019)

Industry	Labrador	Newfoundland	Other Canada	Non- Canadian	Totals
Accommodation and Food Services	21,733	4,181,833	ı	=	4,203,566
Administrative and Support, Waste Management and Remediation Services	6,369	396	1	-	6,764
Agriculture, Forestry, Fishing and Hunting	ı	3,727	ı	=	3,727
Arts, Entertainment and Recreation	ı	ı	ı	=	-
Construction	89,397	19,930,381	699,073	-	20,718,851
Educational Services	ı	ı	ı	-	-
Finance and Insurance	1	529	159,039	66,782	226,349
Health Care and Social Assistance	1	1	566,235	-	566,235
Information and Cultural Industries	ı	15,742	187,251	=	202,992
Management of Companies and Enterprises	ı	ı	ı	=	-
Manufacturing	ı	209,379	22,126,650	-	22,336,030
Mining, Quarrying, and Oil and Gas Extraction	59,244	-	ı	-	59,244
Other Services, Including Maintenance and Repair	24,253	1,782,147	25,794,930	42,510	27,643,840
Professional, Scientific and Technical Services	19,030	4,061,597	2,906,839	92,404	7,079,870
Public Administration	3,710	12,250	T	-	15,960
Real Estate, Rental and Leasing	3,375	64,123	5,954	-	73,451
Retail Trade	5,987	32,985	3,775	-	42,747
Transportation and Warehousing	501,126	215,152	22,225	-	738,503
Utilities	13,253	1,675,006	265,272	-	1,953,532
Wholesale Trade	828,093	34,368	26,343	-	888,804
Grand Total	1,575,570	32,219,613	52,763,587	201,696	86,760,465

Table 19 - Total Value of Expenditures by Location of Company and Industry Category (\$CDN; Project to Date)

Industry	Labrador	Newfoundland	Other Canada	Non- Canadian	Totals
Accommodation and Food Services	3,115,049	255,049,585	18,506,754	139,278	276,810,666
Administrative and Support, Waste Management and Remediation Services	787,670	11,259,323	284,858	7,333	12,339,183
Agriculture, Forestry, Fishing and Hunting	15,240	117,677,801	5,635,780	-	123,328,821
Arts, Entertainment and Recreation	304,621	133,498	44,500	22,611	505,230
Construction	656,311,046	1,017,969,134	3,505,873,293	50,515,443	5,230,668,916
Educational Services	142,854	564,774	4,946,617	15,580	5,669,824
Finance and Insurance	360,831	49,698,126	36,547,774	5,602,329	92,209,061
Health Care and Social Assistance	4,500	4,765,315	5,449,594	-	10,219,409
Information and Cultural Industries	44,921	1,506,480	4,074,452	3,356,851	8,982,704
Management of Companies and Enterprises	1	1	1	1	•
Manufacturing	8,420,854	36,082,888	833,877,348	263,894,839	1,142,275,930
Mining, Quarrying, and Oil and Gas Extraction	4,767,259	1,495,159	24,831,141	1,200	31,094,759
Other Services, Including Maintenance and Repair	1,144,789	118,341,157	460,661,988	95,452,489	675,600,423
Professional, Scientific and Technical Services	7,571,587	372,027,733	547,549,062	21,885,058	949,033,440
Public Administration	24,362,826	3,946,875	1,550,637	3,170	29,863,509
Real Estate, Rental and Leasing	880,251	1,058,109	3,216,901	22,500	5,177,761
Retail Trade	1,416,647	15,284,644	822,924	14,619	17,538,835
Transportation and Warehousing	33,343,384	40,453,420	52,890,574	1,365,823	128,053,200
Utilities	765,127	188,976,052	49,966,581	15,531	239,723,291
Wholesale Trade	8,133,824	4,530,848	3,440,862	16,405,931	32,511,464
Totals	751,893,280	2,240,820,919	5,560,171,640	458,720,585	9,011,606,425

9.2 Procurement

Tables 20 - 22 provide details on procurement activities for all components of the Muskrat Falls Project. Appendix B contains a list of all contracts awarded to date since Project Sanction.

Table 20 - Contracts Awarded During May 2019

Package #	Package Title	Award Date	Successful Bidder(s)
	No contracts awarded during	g May 2019	

Table 21 - Request for Proposals Issued

Package #	Package Title		RFP Issue Status	Qualified Bidders
		No requests for prop	posals were issued dur	ing May 2019

Table 22 - Upcoming Request for Proposals (RFP)

Package #	Package Title	Forecasted Bidder Selection	Forecasted RFP Issue
		Start	Date
	There are currently no up	coming requests for proposals.	

Appendix A – Employment by 4-Digit NOC Code

Table 23 - Person Hours of Employment by 4-Digit NOC Code (May 2019)

		Curren	t Month			Project t	o Date	
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
0016 - Senior Managers - Goods Production, Utilities, Transportation	433		1,741	2,174	133,811	8,008	81,221	223,040
and Construction	433	-	1,741	2,174	155,611	8,008	01,221	223,040
0111 - Financial Managers	560	-	405	965	11,213	-	29,914	41,127
0112 - Human Resources Managers	1,352	96	405	1,853	223,991	21,623	55,639	301,253
0113 - Purchasing Managers	310	-	128	438	19,051	9,932	19,948	48,931
0114 - Other Administrative Services Managers	240	-	266	506	147,165	3,023	40,799	190,987
0124 - Advertising, marketing and public relations managers	-	-	113	113	6,616	-	3,401	10,017
0125 - Other Business Services Managers	-	-	188	188	22,626	137	58,626	81,388
0211 - Engineering Managers	165	459	1,594	2,218	80,771	75,278	166,893	322,941
0213 - Computer and Information Systems Managers	-	238	176	414	11,259	12,095	28,070	51,424
0711 - Construction Managers	1,100	-	3,878	4,978	671,580	12,249	261,581	945,410
1111 - Financial Auditors and Accountants	200	-	268	468	38,246	1,658	27,161	67,064
1114 - Other Financial Officers	585	-	2,224	2,809	17,088	3,073	112,584	132,745
1121 - Human Resources professionals	758	-	1,146	1,904	122,576	13,547	135,170	271,292
1122 - Professional Occupations in Business management consulting	-	-	-	-	-	-	-	-
1123 - Professional occupations in advertising, marketing and public			607	607	24.020	24	F2 C4 4	04.675
relations	-	-	607	607	31,030	31	53,614	84,675
1221 - Administrative Officers	139	772	799	1,709	52,283	80,866	59,715	192,864
1223 - Human resources and Recruitment Officers	-	-	188	188	3,058	3,741	25,284	32,082
1225 - Purchasing Agents and Officers	1,102	-	3,726	4,828	178,383	65,509	375,478	619,370
1241 - Administrative Assistants	1,863	190	1,990	4,042	372,859	40,331	180,333	593,524
1311 - Accounting technicians and bookkeepers	200	80	1,272	1,552	106,092	15,600	138,833	260,524
1411 - General Office support workers	1,402	-	38	1,439	326,546	72	1,609	328,227
1431 - Accounting and Related Clerks	-	-	300	300	1,325	-	3,781	5,105
2113 - Geologists, Geochemists and Geophysicists	-	-	-	-	7,849	12,446	15,145	35,439
2131 - Civil Engineers	2,530	568	2,856	5,954	544,755	226,084	345,209	1,116,047
2132 - Mechanical Engineers	920	394	5,388	6,701	108,706	66,086	222,359	397,151
2133 - Electrical and Electronics Engineers	718	1,466	5,885	8,069	107,367	215,859	279,271	602,496
2141 - Industrial and Manufacturing Engineers	2,681	-	3,832	6,513	503,535	19,202	320,912	843,648
2144 - Geological Engineers	-	17	-	17	3,647	29,998	7,836	41,480
2147 - Computer Engineers (Except Software Engineers and Designers)	-	-	119	119	4,449	11,503	4,181	20,133
2148 - Other Professional Engineers, n.e.c.	550	923	5,488	6,960	280,902	110,567	423,378	814,846
2151 – Architects	-	-	-	-	320	5,156	-	5,476
2153 - Urban and Land Use Planners	100	-	232	332	14,502	10,793	69,069	94,363
2154 - Land Surveyors	1,246	-	420	1,666	432,011	173	75,241	507,424
2171 - Information Systems Analysts and Consultants	-	184	1,891	2,075	26,152	15,641	97,024	138,817
2221 - Biological Technologists and Technicians	-	-	-	-	-			

		Curren	Month			Project t	o Date	
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
2231 - Civil Engineering Technologists and Technicians	240	1,282	574	2,096	371,958	90,627	78,425	541,010
2232 - Mechanical Engineering Technologists and Technicians	536	-	892	1,428	209,957	16,800	28,236	254,994
2234 - Construction Estimators	-	_	224	224	34,034	25,558	28,857	88,448
2241 - Electrical and Electronics Engineering Technologists and					·			•
Technicians	1,000	163	3,488	4,651	43,931	34,934	180,912	259,777
2243 - Industrial Instrument Technicians and Mechanics	296	-	-	296	21,254	-	7,994	29,248
2251 - Architectural Technologists and Technicians	200	4	-	204	5,728	5,300	300	11,327
2253 - Drafting Technologists and Technicians	640	167	14	821	177,736	77,572	14,669	269,977
2263 - Inspectors in Public and Environmental Health and Occupational	3,193	886	2,903	6,982	556,664	96,022	194,050	846,735
Health and Safety	3,193	880	2,903	0,382	330,004	90,022	194,030	840,733
2264 - Construction Inspectors	400	-	1,475	1,875	86,568	39,919	218,069	344,556
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	8	8	64	80	1,291	1,434
3234 - Paramedical Occupations	2,568	-	200	2,768	303,075	-	4,548	307,623
4112 - Lawyers and Quebec Notaries	-	-	5	5	686	-	5,156	5,842
4161 - Natural and Applied Science Policy Researchers, Consultants and	400	492	1,348	2,239	197,974	106,337	159,973	464,284
Program Officers	400	432	1,340	2,239	157,574	100,337		404,204
4162 - Economists and Economic Policy Researchers and Analysts	-	-	379	379	1,146	-	29,313	30,459
4169 - Other Professional Occupations in Social Science, n.e.c.	203	-	-	203	29,045	-	41	29,085
4312 – Firefighters	2,113	-	72	2,185	58,492	-	3,339	61,831
6313 - Accommodation, travel, tourism and related services supervisors	766	-	-	766	99,089	-	4,470	103,559
6321 – Chefs	-	-	-	-	1,134	-	-	1,134
6322 – Cooks	1,310	-	-	1,310	190,103	-	3,002	193,105
6541 - Security Guards and Related security service Occupations	7,450	278	-	7,728	599,467	12,981	6,593	619,040
6711 - Food Counter Attendants, Kitchen Helpers and Related support	13,475	_	_	13,475	1,625,946	_	4,142	1,630,087
Occupations	13,473			13,473	1,023,340		7,172	1,030,007
7201 - Contractors and supervisors, machining, metal forming, shaping	3,471	_	2	3,473	313,550	134	8,136	321,820
and erecting trades and related occupations	3,471		-	3,473	313,330	154	0,130	321,020
7202 - Contractors and Supervisors, Electrical Trades and	2,301	_	120	2,421	225,458	57	12,263	237,777
Telecommunications Occupations	,		120	•	,	3,	,	-
7203 - Contractors and Supervisors, Pipefitting Trades	1,073	-	-	1,073	83,008	-	705	83,713
7204 - Contractors and Supervisors, Carpentry Trades	3,017	11	-	3,028	442,165	11	22,152	464,328
7205 - Contractors and Supervisors, Other Construction Trades,	3,911	_	616	4,527	773,290	9,829	38,644	821,763
Installers, Repairers and Servicers	,		010	,		3,023	30,044	,
7233 - Sheet Metal Workers	2,905	-	-	2,905	114,575	-	1,825	116,400
7234 – Boilermakers	538	-	-	538	44,528	-	-	44,528
7236 – Ironworkers	9,663	-	-	9,663	2,124,129	-	4,014	2,128,143
7237 - Welders and Related Machine Operators	2,393	-	7	2,400	277,075	192	2,408	279,675
7242 - Industrial Electricians	27,498	-	2,511	30,009	1,493,345	1,849	37,900	1,533,094
7244 - Electrical Power Line and Cable Workers	1,403	-	437	1,840	700,210	-	19,641	719,851
7251 – Plumbers	271	-	2	273	78,393	-	3,686	82,079
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	7,056	-	-	7,056	360,038	280	619	360,937

		Curren	Month			Project t	o Date	
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
7271 – Carpenters	22,484	-	-	22,484	5,199,354	448	73,162	5,272,964
7281 – Bricklayers	9,418	-	-	9,418	490,792	-	8,957	499,750
7293 – Insulators	1,127	-	-	1,127	21,411	-	-	21,411
7294 - Painters and Decorators (except interior decorators)	2,316	-	-	2,316	63,041	-	137	63,178
7301 - Contractors and supervisors, mechanic trades	1,929	-	-	1,929	103,798	-	358	104,156
7302 - Contractors and supervisors, heavy equipment operator crews	1,255	-	-	1,255	357,354	-	5,678	363,032
7311 - Construction Millwrights and Industrial Mechanics	16,136	-	274	16,410	213,985	-	28,345	242,330
7312 - Heavy- Duty Equipment Mechanics	1,366	-	1	1,367	692,081	1,033	2,559	695,673
7371 - Crane Operators	2,755	-	-	2,755	672,728	-	11,724	684,452
7372 - Drillers and Blasters - Surface Mining, Quarrying and					210,857	1,160	182	212 100
Construction	-	-	-	-	210,857	1,160	182	212,198
7384 - Other Trades and Related Occupations, n.e.c.	-	-	-	-	29,471	-	139	29,610
7452 - Material Handlers	2,985	-	716	3,701	327,391	48	26,164	353,603
7511 - Transport Truck Drivers	6,529	-	-	6,529	1,917,374	689	27,504	1,945,567
7512 - Bus Drivers, Subway Operators and Other Transit Operators	3,099	-	-	3,099	301,573	-	1,539	303,112
7521 - Heavy Equipment Operators (Except Crane)	6,673	-	8	6,681	3,697,000	1,457	83,023	3,781,480
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	-	-	678	-	-	678
7611 - Construction Trades Helpers and Labourers	2,936	-	1	2,937	1,110,142	189	45,122	1,155,452
7612 - Other Trades Helpers and Labourers	16,833	-	228	17,061	5,532,159	3,807	66,088	5,602,054
8211 - Supervisors, Logging and Forestry	-	-	-	-	58,359	-	700	59,059
8241 - Logging Machinery Operators	-		-	-	483,992	1	6,996	490,988
8616 - Logging and Forestry Labourers	167	-	-	167	81,160	60	6,723	87,943
9241 - Power Engineers and power system operators	20	-	616	636	37,660	-	27,569	65,228
All Occupation Codes	217,467	8,668	64,673	290,808	37,857,932	1,617,642	5,267,313	44,742,886

Table 24 - Residents Hired by 4-Digit NOC Code (May 2019)

		C&A			E&D			PM			Total	
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
4-Digit NOC Code	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
0016 - Senior Managers - Goods Production, Utilities,	2	3	67%	_	_	0%	7	11	64%	9	14	64%
Transportation and Construction	-	J	0770			0 /0	,		0470			
0111 - Financial Managers	1	3	33%	-	-	0%	6	6	100%	7	9	78%
0112 - Human Resources Managers	9	9	100%	1	1	100%	4	4	100%	14	14	100%
0113 - Purchasing Managers	1	2	50%	-	-	0%	1	1	100%	2	3	67%
0114 - Other Administrative Services Managers	1	1	100%	-	-	0%	2	2	100%	3	3	100%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	1	1	100%	1	1	100%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	1	2	50%	1	2	50%
0211 - Engineering Managers	3	3	100%	-	3	0%	8	9	89%	11	15	73%
0213 - Computer and Information Systems Managers	-	-	0%	1	1	100%	1	1	100%	2	2	100%
0711 - Construction Managers	8	8	100%	-	-	0%	14	19	74%	22	27	81%
1111 - Financial Auditors and Accountants	-	1	0%	-	-	0%	3	3	100%	3	4	75%
1114 - Other Financial Officers	3	4	75%	-	-	0%	15	15	100%	18	19	95%
1121 - Human Resources professionals	4	4	100%	-	-	0%	8	8	100%	12	12	100%
1122 - Professional Occupations in Business management	_	_	0%	_	_	0%	_		0%	_	_	0%
consulting	-		070			070	_		076	_	-	076
1123 - Professional occupations in advertising, marketing	-	_	0%	_	_	0%	5	5	100%	5	5	100%
and public relations												
1221 - Administrative Officers	1	2	50%	4	4	100%	4	4	100%	9	10	90%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	1	2	50%	1	2	50%
1225 - Purchasing Agents and Officers	6	9	67%	-	-	0%	14	20	70%	20	29	69%
1241 - Administrative Assistants	9	12	75%	1	1	100%	13	14	93%	23	27	85%
1311 - Accounting technicians and bookkeepers	1	1	100%	1	1	100%	12	12	100%	14	14	100%
1411 - General Office support workers	10	10	100%	-	-	0%	1	1	100%	11	11	100%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	3	3	100%	3	3	100%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	15	17	88%	1	5	20%	19	20	95%	35	42	83%
2132 - Mechanical Engineers	4	7	57%	2	3	67%	28	35	80%	34	45	76%
2133 - Electrical and Electronics Engineers	3	6	50%	1	11	9%	32	44	73%	36	61	59%
2141 - Industrial and Manufacturing Engineers	10	16	63%	-	-	0%	14	19	74%	24	35	69%
2144 - Geological Engineers	-	-	0%	-	1	0%	-	-	0%	-	1	0%
2147 - Computer Engineers (Except Software Engineers and Designers)	-	-	0%	-	-	0%	1	1	100%	1	1	100%
2148 - Other Professional Engineers, n.e.c.	3	5	60%	1	6	17%	34	40	85%	38	51	75%

		C&A			E&D			PM			Total	
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
4-Digit NOC Code	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	2	2	100%	2	3	67%
2154 - Land Surveyors	12	12	100%	-	-	0%	3	3	100%	15	15	100%
2171 - Information Systems Analysts and Consultants	-	-	0%	1	1	100%	13	14	93%	14	15	93%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	9	10	90%	1	2	50%	6	7	86%	16	19	84%
2232 - Mechanical Engineering Technologists and Technicians	3	3	100%	-	-	0%	5	6	83%	8	9	89%
2234 - Construction Estimators	-	-	0%	-	-	0%	1	1	100%	1	1	100%
2241 - Electrical and Electronics Engineering Technologists and Technicians	4	5	80%	1	1	100%	34	37	92%	39	43	91%
2243 - Industrial Instrument Technicians and Mechanics	1	2	50%	-	-	0%	-	-	0%	1	2	50%
2251 - Architectural Technologists and Technicians	1	1	100%	1	1	100%	-	-	0%	2	2	100%
2253 - Drafting Technologists and Technicians	2	4	50%	1	1	100%	2	2	100%	5	7	71%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	18	21	86%	5	5	100%	16	18	89%	39	44	89%
2264 - Construction Inspectors	2	2	100%	-	-	0%	6	8	75%	8	10	80%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	1	1	100%	1	1	100%
3234 - Paramedical Occupations	14	15	93%	-	-	0%	1	1	100%	15	16	94%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	1	1	100%	1	1	100%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	-	2	0%	1	3	33%	12	12	100%	13	17	76%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	3	3	100%	3	3	100%
4169 - Other Professional Occupations in Social Science, n.e.c.	2	2	100%	-	-	0%	-	-	0%	2	2	100%
4312 - Firefighters	13	13	100%	-	-	0%	1	1	100%	14	14	100%
6313 - Accommodation, travel, tourism and related	_	4	0%	_	_	0%	_	_	0%	_	4	0%
services supervisors		7	• • • • • • • • • • • • • • • • • • • •								7	
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	9	9	100%	-	-	0%	-	-	0%	9	9	100%
6541 - Security Guards and Related security service Occupations	56	57	98%	1	1	100%	-	-	0%	57	58	98%
6711 - Food Counter Attendants, Kitchen Helpers and Related support Occupations	101	101	100%	-	-	0%	-	-	0%	101	101	100%
7201 - Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	19	21	90%	-	-	0%	1	1	100%	20	22	91%

		C&A			E&D			PM			Total	
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
4-Digit NOC Code	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
7202 - Contractors and Supervisors, Electrical Trades and	14	15	93%			0%	3	4	75%	17	19	89%
Telecommunications Occupations	14	13	93/6	_	-	0/6	3	4	13/6	17	19	03/0
7203 - Contractors and Supervisors, Pipefitting Trades	6	6	100%	-	-	0%	-	-	0%	6	6	100%
7204 - Contractors and Supervisors, Carpentry Trades	18	19	95%	-	1	0%	-	-	0%	18	20	90%
7205 - Contractors and Supervisors, Other Construction	20	24	83%	_	_	0%	6	6	100%	26	30	87%
Trades, Installers, Repairers and Servicers												
7233 - Sheet Metal Workers	18	18	100%	-	-	0%	-	-	0%	18	18	100%
7234 - Boilermakers	3	3	100%	-	-	0%	-	-	0%	3	3	100%
7236 - Ironworkers	64	64	100%	-	-	0%	-	-	0%	64	64	100%
7237 - Welders and Related Machine Operators	14	15	93%	-	-	0%	1	1	100%	15	16	94%
7242 - Industrial Electricians	172	175	98%	-	-	0%	20	21	95%	192	196	98%
7244 - Electrical Power Line and Cable Workers	12	12	100%	-	-	0%	14	14	100%	26	26	100%
7251 - Plumbers	2	2	100%	-	-	0%	1	1	100%	3	3	100%
7252 - Steamfitters, Pipefitters and Sprinkler System	44	46	96%			0%		_	0%	44	46	96%
Installers	44	40	90%	_		0%			U%	44	40	30%
7271 - Carpenters	142	145	98%	-	-	0%	-	-	0%	142	145	98%
7281 - Bricklayers	63	64	98%	-	-	0%	-	-	0%	63	64	98%
7293 - Insulators	6	6	100%	-	-	0%	-	-	0%	6	6	100%
7294 - Painters and Decorators (except interior	16	16	100%	_	_	0%	_	_	0%	16	16	100%
decorators)	10	10	100/6			U /0			070	10	10	10076
7301 - Contractors and supervisors, mechanic trades	10	10	100%	-	-	0%	-	-	0%	10	10	100%
7302 - Contractors and supervisors, heavy equipment	10	10	100%	_	_	0%	_	_	0%	10	10	100%
operator crews	10	10	100/0						070	10		
7311 - Construction Millwrights and Industrial Mechanics	78	82	95%	-	-	0%	6	6	100%	84	88	95%
7312 - Heavy- Duty Equipment Mechanics	12	13	92%	-	-	0%	1	1	100%	13	14	93%
7371 - Crane Operators	19	19	100%	-	-	0%	-	-	0%	19	19	100%
7372 - Drillers and Blasters - Surface Mining, Quarrying	_	_	0%	_	_	0%	_	_	0%	_	_	0%
and Construction												
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	18	18	100%	-	-	0%	5	5	100%	23	23	100%
7511 - Transport Truck Drivers	38	39	97%	-	-	0%	-	-	0%	38	39	97%
7512 - Bus Drivers, Subway Operators and Other Transit	22	22	100%	_	_	0%	_	_	0%	22	22	100%
Operators												
7521 - Heavy Equipment Operators (Except Crane)	51	51	100%	-	-	0%	2	2	100%	53	53	100%
7533 - Boat and Cable Ferry Operators and Related	_	-	0%		-	0%	-	_	0%	-	-	0%
Occupations		-										
7611 - Construction Trades Helpers and Labourers	21	21	100%	-	-	0%	1	1	100%	22	22	100%
7612 - Other Trades Helpers and Labourers	122	122	100%	-	-	0%	5	5	100%	127	127	100%

	C&A			E&D			PM			Total		
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
4-Digit NOC Code	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	1	1	100%	-	-	0%	-	-	0%	1	1	100%
9241 - Power Engineers and power system operators	-	-	0%	-	-	0%	10	10	100%	10	10	100%
Totals	1,376	1,446	95%	25	53	47%	435	497	88%	1,836	1,996	92%

Table 25 - Female Workers Hired by 4-Digit NOC Code (May 2019)

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
		Total	as % of		Total	as % of	Female	Total	as % of		Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
0016 - Senior Managers - Goods Production, Utilities,	1	3	33%	-	-	0%	1	11	9%	2	14	14%
Transportation and Construction	1	2	220/			00/	٠,	c	220/	,	0	220/
0111 - Financial Managers	_	3	33%	-	-	0%	2 2	6	33%	3 4	9 14	33%
0112 - Human Resources Managers	1	9	11%	1	1	100%	2	4	50%	4	= -	29%
0113 - Purchasing Managers	-	2	0%	-	-	0%	-	1	0%	-	3	0%
0114 - Other Administrative Services Managers	1	1	100%	-	-	0%	1	2	50%	2	3	67%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	1	1	100%	1	1	100%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	1	2	50%	1	2	50%
0211 - Engineering Managers	1	3	33%	-	3	0%	1	9	11%	2	15	13%
0213 - Computer and Information Systems Managers	-	-	0%	-	1	0%	-	1	0%	-	2	0%
0711 - Construction Managers	-	8	0%	-	-	0%	-	19	0%	-	27	0%
1111 - Financial Auditors and Accountants	-	1	0%	-	-	0%	-	3	0%	-	4	0%
1114 - Other Financial Officers	3	4	75%	-	-	0%	9	15	60%	12	19	63%
1121 - Human Resources professionals	2	4	50%	-	-	0%	4	8	50%	6	12	50%
1122 - Professional Occupations in Business management		_	0%	_	_	0%	_	_	0%		_	0%
consulting		_	070	_	_	070	_	_	070	_	_	076
1123 - Professional occupations in advertising, marketing	_	_	0%	_	_	0%	4	5	80%	4	5	80%
and public relations												
1221 - Administrative Officers	2	2	100%	4	4	100%	3	4	75%	9	10	90%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	2	0%	-	2	0%
1225 - Purchasing Agents and Officers	5	9	56%	-	-	0%	7	20	35%	12	29	41%
1241 - Administrative Assistants	9	12	75%	1	1	100%	12	14	86%	22	27	81%
1311 - Accounting technicians and bookkeepers	-	1	0%	-	1	0%	12	12	100%	12	14	86%
1411 - General Office support workers	9	10	90%	-	-	0%	1	1	100%	10	11	91%
1431 - Accounting and Related Clerks	-	-	0%		-	0%	2	3	67%	2	3	67%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	3	17	18%	-	5	0%	8	20	40%	11	42	26%
2132 - Mechanical Engineers	3	7	43%	-	3	0%	8	35	23%	11	45	24%
2133 - Electrical and Electronics Engineers	1	6	17%	-	11	0%	9	44	20%	10	61	16%
2141 - Industrial and Manufacturing Engineers	1	16	6%	-	-	0%	1	19	5%	2	35	6%
2144 - Geological Engineers	-	-	0%	1	1	100%	-	-	0%	1	1	100%
2147 - Computer Engineers (Except Software Engineers and Designers)	-	-	0%	-	-	0%	1	1	100%	1	1	100%
2148 - Other Professional Engineers, n.e.c.	1	5	20%	3	6	50%	6	40	15%	10	51	20%

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
A Pitta Noc Calle		Total	as % of	e a constant	Total	as % of	Female	Total	as % of	Familia.	Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	2	0%	-	3	0%
2154 - Land Surveyors	-	12	0%	-	-	0%	-	3	0%	-	15	0%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	1	0%	3	14	21%	3	15	20%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	3	10	30%	-	2	0%	-	7	0%	3	19	16%
2232 - Mechanical Engineering Technologists and	_	3	0%	_	_	0%	1	6	17%	1	9	11%
Technicians		3	070	_		070	1	U	17/0	_	3	11/0
2234 - Construction Estimators	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2241 - Electrical and Electronics Engineering Technologists	_	5	0%	_	1	0%	2	37	5%	2	43	5%
and Technicians					•		-	37		_		
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	1	0%	1	1	100%	-	-	0%	1	2	50%
2253 - Drafting Technologists and Technicians	2	4	50%	-	1	0%	1	2	50%	3	7	43%
2263 - Inspectors in Public and Environmental Health and	6	21	29%	_	5	0%	5	18	28%	11	44	25%
Occupational Health and Safety			2370		5	0/0			20/0	1		
2264 - Construction Inspectors	-	2	0%	-	-	0%	-	8	0%	-	10	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-		0%	-	-	0%	-	1	0%	-	1	0%
3234 - Paramedical Occupations	5	15	33%	-	-	0%	-	1	0%	5	16	31%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	1	1	100%	1	1	100%
4161 - Natural and Applied Science Policy Researchers,		2	0%		3	0%	5	12	42%	5	17	29%
Consultants and Program Officers	_	2	U%	-	3	0%	3	12	42%	3	17	25%
4162 - Economists and Economic Policy Researchers and	_	_	0%	_	_	0%	2	3	67%	2	3	67%
Analysts			070	_		070		3	07/0	_	3	07/6
4169 - Other Professional Occupations in Social Science,	1	2	50%	_	_	0%	_	_	0%	1	2	50%
n.e.c.	_											
4312 - Firefighters	1	13	8%	-	-	0%	-	1	0%	1	14	7%
6313 - Accommodation, travel, tourism and related	1	4	25%	_	_	0%	_	_	0%	1	4	25%
services supervisors	_	•								_	•	
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	2	9	22%	-	-	0%	-	-	0%	2	9	22%
6541 - Security Guards and Related security service	10	57	18%	_	1	0%	_	_	0%	10	58	17%
Occupations	10	37	20/0		-	270			270	20		2,70
6711 - Food Counter Attendants, Kitchen Helpers and	53	101	52%	_	_	0%	_	_	0%	53	101	52%
Related support Occupations											-	

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
		Total	as % of		Total	as % of	Female	Total	as % of		Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
7201 - Contractors and supervisors, machining, metal												
forming, shaping and erecting trades and related	-	21	0%	-	-	0%	-	1	0%	-	22	0%
occupations												
7202 - Contractors and Supervisors, Electrical Trades and	_	15	0%	-	_	0%	-	4	0%	_	19	0%
Telecommunications Occupations			20/			20/			20/		_	20/
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	19	0%	-	1	0%	-	-	0%	-	20	0%
7205 - Contractors and Supervisors, Other Construction	_	24	0%	_	_	0%	_	6	0%	_	30	0%
Trades, Installers, Repairers and Servicers										_		
7233 - Sheet Metal Workers	1	18	6%	-	-	0%	-	-	0%	1	18	6%
7234 - Boilermakers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7236 - Ironworkers	1	64	2%	-	-	0%	-	-	0%	1	64	2%
7237 - Welders and Related Machine Operators	-	15	0%	-	-	0%	-	1	0%	-	16	0%
7242 - Industrial Electricians	4	175	2%	-	-	0%	1	21	5%	5	196	3%
7244 - Electrical Power Line and Cable Workers	1	12	8%	-	-	0%	-	14	0%	1	26	4%
7251 - Plumbers	-	2	0%	-	-	0%	-	1	0%	-	3	0%
7252 - Steamfitters, Pipefitters and Sprinkler System	_	46	0%			0%		_	0%		46	0%
Installers	_	40	0/0	_	_	0/0	_	-	U/0	-	40	U/0
7271 - Carpenters	4	145	3%	-	-	0%	-	-	0%	4	145	3%
7281 - Bricklayers	5	64	8%	-	-	0%	-	-	0%	5	64	8%
7293 - Insulators	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7294 - Painters and Decorators (except interior		16	0%			0%			0%		16	0%
decorators)	_	10	U%	-	-	U%	_	-	U%	-	10	0%
7301 - Contractors and supervisors, mechanic trades	-	10	0%	-	-	0%	-	-	0%	-	10	0%
7302 - Contractors and supervisors, heavy equipment	_	10	0%	_	_	0%	_	_	0%		10	0%
operator crews	_	10	070			070	_		070	_	10	0/0
7311 - Construction Millwrights and Industrial Mechanics	7	82	9%	-	-	0%	-	6	0%	7	88	8%
7312 - Heavy- Duty Equipment Mechanics	-	13	0%	-	-	0%	-	1	0%	-	14	0%
7371 - Crane Operators	1	19	5%	-	-	0%	-	-	0%	1	19	5%
7372 - Drillers and Blasters - Surface Mining, Quarrying		_	0%			0%			0%			0%
and Construction	_	-	U%	-	-	U%	_	-	U%	-	-	0%
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	1	18	6%	-	-	0%	2	5	40%	3	23	13%
7511 - Transport Truck Drivers	1	39	3%	-	-	0%	-	-	0%	1	39	3%
7512 - Bus Drivers, Subway Operators and Other Transit		22	0%			0%			0%		22	0%
Operators	_	22	U%	_	-	U/0	_	-	U/0	_	22	U%
7521 - Heavy Equipment Operators (Except Crane)	1	51	2%	-	-	0%	-	2	0%	1	53	2%

		C&A			E&D			PM			Total	
		Total	Females as % of		Total	Females as % of	Female	Total	Females as % of		Total	Females as % of
4-Digit NOC Code	Females	Persons	Total	Females		Total	S	Persons	Total	Females		Total
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	-	21	0%	-	-	0%	-	1	0%	-	22	0%
7612 - Other Trades Helpers and Labourers	23	122	19%	-	-	0%	-	5	0%	23	127	18%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
9241 - Power Engineers and power system operators	-	-	0%	-	-	0%	-	10	0%	-	10	0%
Totals	178	1,446	12%	11	53	21%	119	497	24%	308	1,996	15%

Table 26 - Aboriginal Workers by 4-Digit NOC Code (May 2019)

		C&A			E&D			PM			Total	
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
0016 - Senior Managers - Goods Production, Utilities,	_	3	0%	_	_	0%	_	11	0%	-	14	0%
Transportation and Construction												
0111 - Financial Managers	-	3	0%	-	-	0%	-	6	0%	-	9	0%
0112 - Human Resources Managers	3	9	33%	-	1	0%	-	4	0%	3	14	21%
0113 - Purchasing Managers	-	2	0%	-	-	0%	-	1	0%	-	3	0%
0114 - Other Administrative Services Managers	-	1	0%	-	-	0%	-	2	0%	-	3	0%
0124 - Advertising, marketing and public relations	-	-	0%	-	-	0%	-	1	0%	-	1	0%
managers 0125 - Other Business Services Managers	_	_	0%	_	_	0%	_	2	0%	_	2	0%
0211 - Engineering Managers	_	3	0%	_	3	0%	_	9	0%	_	15	0%
0213 - Computer and Information Systems Managers	_	-	0%	_	1	0%	_	1	0%	_	2	0%
0711 - Construction Managers	_	8	0%	_	-	0%	_	19	0%	_	_ 27	0%
1111 - Financial Auditors and Accountants	_	1	0%			0%	_	3	0%	_	4	0%
1114 - Other Financial Officers		4	0%	_	_	0%	_	15	0%	_	19	0%
1121 - Human Resources professionals	_	4	0%	_		0%	3	8	38%	3	12	25%
1122 - Professional Occupations in Business management		7	0/0			070	,	O	3070	,	12	23/0
consulting	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1123 - Professional occupations in advertising, marketing and public relations	-	-	0%	-	-	0%	-	5	0%	-	5	0%
1221 - Administrative Officers	1	2	50%	-	4	0%	-	4	0%	1	10	10%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	2	0%	-	2	0%
1225 - Purchasing Agents and Officers	1	9	11%	-	-	0%	-	20	0%	1	29	3%
1241 - Administrative Assistants	1	12	8%	-	1	0%	-	14	0%	1	27	4%
1311 - Accounting technicians and bookkeepers	-	1	0%	-	1	0%	-	12	0%	-	14	0%
1411 - General Office support workers	2	10	20%	-	-	0%	-	1	0%	2	11	18%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	3	0%	-	3	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	1	17	6%	-	5	0%	-	20	0%	1	42	2%
2132 - Mechanical Engineers	2	7	29%	1	3	33%	-	35	0%	3	45	7%
2133 - Electrical and Electronics Engineers	-	6	0%	-	11	0%	-	44	0%	-	61	0%
2141 - Industrial and Manufacturing Engineers	-	16	0%	-	-	0%	1	19	5%	1	35	3%
2144 - Geological Engineers	-	-	0%	-	1	0%	-	-	0%	-	1	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
2147 - Computer Engineers (Except Software Engineers	_	_	0%	-	_	0%	_	1	0%	_	1	0%
and Designers)												
2148 - Other Professional Engineers, n.e.c.	-	5	0%	-	6	0%	-	40	0%	-	51	0%
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	2	0%	-	3	0%
2154 - Land Surveyors	2	12	17%	-	-	0%	-	3	0%	2	15	13%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	1	0%	-	14	0%	-	15	0%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	-	10	0%	-	2	0%	1	7	14%	1	19	5%
2232 - Mechanical Engineering Technologists and Technicians	1	3	33%	-	-	0%	-	6	0%	1	9	11%
2234 - Construction Estimators	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2241 - Electrical and Electronics Engineering Technologists and Technicians	-	5	0%	-	1	0%	1	37	3%	1	43	2%
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	1	0%	-	1	0%	-	-	0%	-	2	0%
2253 - Drafting Technologists and Technicians	-	4	0%	-	1	0%	-	2	0%	-	7	0%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	-	21	0%	-	5	0%	1	18	6%	1	44	2%
2264 - Construction Inspectors	-	2	0%	-	-	0%	-	8	0%	-	10	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	-	1	0%	-	1	0%
3234 - Paramedical Occupations	-	15	0%	-	-	0%	-	1	0%	-	16	0%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	-	1	0%	-	1	0%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	-	2	0%	-	3	0%	-	12	0%	-	17	0%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	-	3	0%	-	3	0%
4169 - Other Professional Occupations in Social Science, n.e.c.	1	2	50%	-	-	0%	-	-	0%	1	2	50%
4312 - Firefighters	-	13	0%	-	-	0%	-	1	0%	-	14	0%
6313 - Accommodation, travel, tourism and related	-	4	0%	-	-	0%	-	-	0%	_	4	0%
services supervisors			00/									00/
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	1	9	11%	-	-	0%	-	-	0%	1	9	11%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
6541 - Security Guards and Related security service	5	57	9%	-	1	0%	-	_	0%	5	58	9%
Occupations 6711 - Food Counter Attendants, Kitchen Helpers and Related support Occupations 7201 - Contractors and supervisors, machining, metal	35	101	35%	-	-	0%	-	-	0%	35	101	35%
forming, shaping and erecting trades and related occupations	1	21	5%	-	-	0%	-	1	0%	1	22	5%
7202 - Contractors and Supervisors, Electrical Trades and Telecommunications Occupations	1	15	7%	-	-	0%	-	4	0%	1	19	5%
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	1	19	5%	-	1	0%	-	-	0%	1	20	5%
7205 - Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers	1	24	4%	-	-	0%	-	6	0%	1	30	3%
7233 - Sheet Metal Workers	-	18	0%	-	-	0%		-	0%	-	18	0%
7234 - Boilermakers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7236 - Ironworkers	1	64	2%	-	-	0%	-	-	0%	1	64	2%
7237 - Welders and Related Machine Operators	-	15	0%	-	-	0%	-	1	0%	-	16	0%
7242 - Industrial Electricians	7	175	4%	-	-	0%	1	21	5%	8	196	4%
7244 - Electrical Power Line and Cable Workers	-	12	0%	-	-	0%	-	14	0%	-	26	0%
7251 - Plumbers	-	2	0%	-	-	0%	-	1	0%	-	3	0%
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	6	46	13%	-	-	0%	-	-	0%	6	46	13%
7271 - Carpenters	17	145	12%	-	-	0%	-	-	0%	17	145	12%
7281 - Bricklayers	6	64	9%	-	-	0%	-	-	0%	6	64	9%
7293 - Insulators	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7294 - Painters and Decorators (except interior decorators)	1	16	6%	-	-	0%	-	-	0%	1	16	6%
7301 - Contractors and supervisors, mechanic trades	-	10	0%	-	-	0%		-	0%	-	10	0%
7302 - Contractors and supervisors, heavy equipment operator crews	-	10	0%	-	-	0%	-	-	0%	-	10	0%
7311 - Construction Millwrights and Industrial Mechanics	2	82	2%	-	-	0%	-	6	0%	2	88	2%
7312 - Heavy- Duty Equipment Mechanics	1	13	8%	-	-	0%	-	1	0%	1	14	7%
7371 - Crane Operators	2	19	11%	-	-	0%	-	-	0%	2	19	11%
7372 - Drillers and Blasters - Surface Mining, Quarrying and Construction	-	-	0%	-	-	0%	-	-	0%	•	-	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	1	18	6%	-	-	0%	-	5	0%	1	23	4%
7511 - Transport Truck Drivers	11	39	28%	-	-	0%	-	-	0%	11	39	28%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	3	22	14%	1	-	0%	ı	-	0%	3	22	14%
7521 - Heavy Equipment Operators (Except Crane)	12	51	24%	1	-	0%	-	2	0%	12	53	23%
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	8	21	38%	-	-	0%	-	1	0%	8	22	36%
7612 - Other Trades Helpers and Labourers	55	122	45%	-	-	0%	-	5	0%	55	127	43%
8211 - Supervisors, Logging and Forestry	-	-	0%	1	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
9241 - Power Engineers and power system operators			0%	-		0%		10	0%		10	0%
Totals	193	1,446	13%	1	53	2%	8	497	2%	202	1,996	10%

Table 27 - Labrador Residents by 4-Digit NOC Code (May 2019)

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
0016 - Senior Managers - Goods Production, Utilities,	_	3	0%	_	_	0%	1	11	9%	1	14	7%
Transportation and Construction		_	• • • •				_			_		
0111 - Financial Managers	-	3	0%	-	-	0%	-	6	0%	-	9	0%
0112 - Human Resources Managers	3	9	33%	-	1	0%	1	4	25%	4	14	29%
0113 - Purchasing Managers	-	2	0%	-	-	0%	-	1	0%	-	3	0%
0114 - Other Administrative Services Managers	-	1	0%	-	-	0%	1	2	50%	1	3	33%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	-	1	0%	-	1	0%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	-	2	0%	-	2	0%
0211 - Engineering Managers	-	3	0%	-	3	0%	-	9	0%	-	15	0%
0213 - Computer and Information Systems Managers	-	-	0%	-	1	0%	-	1	0%	-	2	0%
0711 - Construction Managers	-	8	0%	-	-	0%	1	19	5%	1	27	4%
1111 - Financial Auditors and Accountants	-	1	0%	-	-	0%	-	3	0%	-	4	0%
1114 - Other Financial Officers	-	4	0%	-	-	0%	-	15	0%	-	19	0%
1121 - Human Resources professionals	1	4	25%	-	-	0%	3	8	38%	4	12	33%
1122 - Professional Occupations in Business management consulting	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1123 - Professional occupations in advertising, marketing and public relations	-	-	0%	-	-	0%	-	5	0%	-	5	0%
1221 - Administrative Officers	1	2	50%	-	4	0%	2	4	50%	3	10	30%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	2	0%	-	2	0%
1225 - Purchasing Agents and Officers	1	9	11%	-	-	0%	-	20	0%	1	29	3%
1241 - Administrative Assistants	1	12	8%	-	1	0%	1	14	7%	2	27	7%
1311 - Accounting technicians and bookkeepers	-	1	0%	-	1	0%	-	12	0%	-	14	0%
1411 - General Office support workers	7	10	70%	-	-	0%	-	1	0%	7	11	64%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	3	0%	-	3	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	-	17	0%	-	5	0%	-	20	0%	-	42	0%
2132 - Mechanical Engineers	-	7	0%	1	3	33%	-	35	0%	1	45	2%
2133 - Electrical and Electronics Engineers	_	6	0%	-	11	0%	3	44	7%	3	61	5%
2141 - Industrial and Manufacturing Engineers	1	16	6%	-	-	0%	1	19	5%	2	35	6%
2144 - Geological Engineers	-	-	0%	-	1	0%	-	-	0%	-	1	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
2147 - Computer Engineers (Except Software Engineers			0%			0%	_	1	0%		1	0%
and Designers)	-	-	U%	-	-	0%	-	1	U%	-	1	0%
2148 - Other Professional Engineers, n.e.c.	-	5	0%	-	6	0%	2	40	5%	2	51	4%
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	2	0%	-	3	0%
2154 - Land Surveyors	6	12	50%	-	-	0%	-	3	0%	6	15	40%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	1	0%	1	14	7%	1	15	7%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	1	10	10%	-	2	0%	1	7	14%	2	19	11%
2232 - Mechanical Engineering Technologists and Technicians	1	3	33%	-	-	0%	2	6	33%	3	9	33%
2234 - Construction Estimators	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2241 - Electrical and Electronics Engineering Technologists and Technicians	-	5	0%	-	1	0%	12	37	32%	12	43	28%
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	1	0%	-	1	0%	-	-	0%	-	2	0%
2253 - Drafting Technologists and Technicians	1	4	25%	-	1	0%	1	2	50%	2	7	29%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	1	21	5%	1	5	20%	3	18	17%	5	44	11%
2264 - Construction Inspectors	-	2	0%	-	-	0%	1	8	13%	1	10	10%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	1	1	100%	1	1	100%
3234 - Paramedical Occupations	6	15	40%	-	-	0%	-	1	0%	6	16	38%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	-	1	0%	-	1	0%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	-	2	0%	-	3	0%	1	12	8%	1	17	6%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	-	3	0%	-	3	0%
4169 - Other Professional Occupations in Social Science, n.e.c.	2	2	100%	-	-	0%	-	-	0%	2	2	100%
4312 - Firefighters	_	13	0%	_	_	0%	1	1	100%	1	14	7%
6313 - Accommodation, travel, tourism and related		13					_	1		•		
services supervisors	-	4	0%	-	-	0%	-	-	0%	-	4	0%
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	2	9	22%	-	-	0%	-	-	0%	2	9	22%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
6541 - Security Guards and Related security service	29	57	51%	1	1	100%	_	_	0%	30	58	52%
Occupations 6711 - Food Counter Attendants, Kitchen Helpers and Related support Occupations	67	101	66%	-	-	0%	-	-	0%	67	101	66%
7201 - Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	1	21	5%	-	-	0%	1	1	100%	2	22	9%
7202 - Contractors and Supervisors, Electrical Trades and Telecommunications Occupations	-	15	0%	-	-	0%	1	4	25%	1	19	5%
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	19	0%	-	1	0%	-	-	0%	-	20	0%
7205 - Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers	2	24	8%	-	-	0%	2	6	33%	4	30	13%
7233 - Sheet Metal Workers	5	18	28%	-	-	0%	-	-	0%	5	18	28%
7234 - Boilermakers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7236 - Ironworkers	11	64	17%	-	-	0%	-	-	0%	11	64	17%
7237 - Welders and Related Machine Operators	1	15	7%	-	-	0%	1	1	100%	2	16	13%
7242 - Industrial Electricians	26	175	15%	-	-	0%	9	21	43%	35	196	18%
7244 - Electrical Power Line and Cable Workers	1	12	8%	-	-	0%	9	14	64%	10	26	38%
7251 - Plumbers	1	2	50%	-	-	0%	1	1	100%	2	3	67%
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	5	46	11%	-	-	0%	-	-	0%	5	46	11%
7271 - Carpenters	31	145	21%	-	-	0%	-	-	0%	31	145	21%
7281 - Bricklayers	6	64	9%	-	-	0%	-	-	0%	6	64	9%
7293 - Insulators	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7294 - Painters and Decorators (except interior decorators)	-	16	0%	-	-	0%	-	-	0%	-	16	0%
7301 - Contractors and supervisors, mechanic trades	1	10	10%	-	-	0%	-	-	0%	1	10	10%
7302 - Contractors and supervisors, heavy equipment operator crews	-	10	0%	-	-	0%	-	-	0%	-	10	0%
7311 - Construction Millwrights and Industrial Mechanics	7	82	9%	-	-	0%	2	6	33%	9	88	10%
7312 - Heavy- Duty Equipment Mechanics	4	13	31%	-	-	0%	1	1	100%	5	14	36%
7371 - Crane Operators	5	19	26%	-	-	0%	-	-	0%	5	19	26%
7372 - Drillers and Blasters - Surface Mining, Quarrying and Construction	-	-	0%	-	-	0%		-	0%			0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	9	18	50%	-	-	0%	2	5	40%	11	23	48%
7511 - Transport Truck Drivers	20	39	51%	-	-	0%	-	-	0%	20	39	51%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	19	22	86%	-	-	0%	-	-	0%	19	22	86%
7521 - Heavy Equipment Operators (Except Crane)	24	51	47%	-	-	0%	2	2	100%	26	53	49%
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	14	21	67%	-	-	0%	1	1	100%	15	22	68%
7612 - Other Trades Helpers and Labourers	94	122	77%	-	-	0%	3	5	60%	97	127	76%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
9241 - Power Engineers and power system operators	-	-	0%	-	-	0%	1	10	10%	1	10	10%
Totals	418	1,446	29%	3	53	6%	76	497	15%	497	1,996	25%

Table 28 - Labrador Residents Working in Labrador by 4-Digit NOC Code (May 2019)

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
0016 - Senior Managers - Goods Production, Utilities,	_	2	0%	_	_	0%	1	2	50%	1	4	25%
Transportation and Construction							_	_		_	-	
0111 - Financial Managers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
0112 - Human Resources Managers	2	8	25%	-	-	0%	1	1	100%	3	9	33%
0113 - Purchasing Managers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
0114 - Other Administrative Services Managers	-	1	0%	-	-	0%	1	1	100%	1	2	50%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	-	1	0%	-	1	0%
0211 - Engineering Managers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
0213 - Computer and Information Systems Managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0711 - Construction Managers	-	5	0%	-	-	0%	1	16	6%	1	21	5%
1111 - Financial Auditors and Accountants	-	1	0%	-	-	0%	-	-	0%	-	1	0%
1114 - Other Financial Officers	-	1	0%	-	-	0%	-	3	0%	-	4	0%
1121 - Human Resources professionals	1	3	33%	-	-	0%	3	3	100%	4	6	67%
1122 - Professional Occupations in Business management consulting	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1123 - Professional occupations in advertising, marketing and public relations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1221 - Administrative Officers	1	1	100%	-	-	0%	2	2	100%	3	3	100%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1225 - Purchasing Agents and Officers	1	6	17%	-	-	0%	-	9	0%	1	15	7%
1241 - Administrative Assistants	1	10	10%	-	-	0%	1	2	50%	2	12	17%
1311 - Accounting technicians and bookkeepers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
1411 - General Office support workers	7	10	70%	-	-	0%	-	-	0%	7	10	70%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	-	16	0%	-	-	0%	-	10	0%	-	26	0%
2132 - Mechanical Engineers	-	6	0%	-	-	0%	-	17	0%	-	23	0%
2133 - Electrical and Electronics Engineers	-	6	0%	-	-	0%	3	15	20%	3	21	14%
2141 - Industrial and Manufacturing Engineers	1	15	7%	-	-	0%	1	10	10%	2	25	8%
2144 - Geological Engineers	-	-	0%		1	0%		-	0%	-	1	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
2147 - Computer Engineers (Except Software Engineers			0%			0%			0%			0%
and Designers)	-	-	U%	-	-	U%	_	-	U%	-	-	U%
2148 - Other Professional Engineers, n.e.c.	-	5	0%	-	-	0%	2	9	22%	2	14	14%
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	-	0%	-	1	0%
2154 - Land Surveyors	6	12	50%	-	-	0%	-	2	0%	6	14	43%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	-	0%	1	4	25%	1	4	25%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	1	10	10%	-	-	0%	1	1	100%	2	11	18%
2232 - Mechanical Engineering Technologists and Technicians	1	3	33%	-	-	0%	2	4	50%	3	7	43%
2234 - Construction Estimators	_	_	0%	_	_	0%	_	_	0%	_	_	0%
2241 - Electrical and Electronics Engineering Technologists												
and Technicians	-	5	0%	-	-	0%	12	17	71%	12	22	55%
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	1	0%	-	-	0%	-	-	0%	-	1	0%
2253 - Drafting Technologists and Technicians	1	4	25%	-	-	0%	1	1	100%	2	5	40%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	1	19	5%	1	3	33%	3	11	27%	5	33	15%
2264 - Construction Inspectors	_	2	0%	-	-	0%	1	5	20%	1	7	14%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	1	1	100%	1	1	100%
3234 - Paramedical Occupations	6	15	40%	-	-	0%	-	-	0%	6	15	40%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	-	_	0%	_	_	0%
4161 - Natural and Applied Science Policy Researchers,		2	0%	_	1	0%	1	4	25%	1	7	14%
Consultants and Program Officers		2	070		1	U 70	1	7	23/0	_	,	14/0
4162 - Economists and Economic Policy Researchers and	-	-	0%	-	-	0%	-	_	0%	_	_	0%
Analysts												
4169 - Other Professional Occupations in Social Science,	2	2	100%	-	-	0%	-	-	0%	2	2	100%
n.e.c.		11	00/			00/	1	1	1000/	4	12	8%
4312 - Firefighters 6313 - Accommodation, travel, tourism and related	_	11	0%	-	-	0%	1	1	100%	1	12	δ%
services supervisors	-	4	0%	-	-	0%	-	-	0%	-	4	0%
6321 - Chefs	_	-	0%	_	-	0%	_	_	0%	_	_	0%
6322 - Cooks	2	9	22%	-	-	0%	-	-	0%	2	9	22%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
6541 - Security Guards and Related security service	29	57	51%	1	1	100%	-	_	0%	30	58	52%
Occupations 6711 - Food Counter Attendants, Kitchen Helpers and Related support Occupations	67	101	66%	-	-	0%	-	-	0%	67	101	66%
7201 - Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	1	21	5%	-	-	0%	1	1	100%	2	22	9%
7202 - Contractors and Supervisors, Electrical Trades and Telecommunications Occupations	-	13	0%	-	-	0%	1	1	100%	1	14	7%
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	-	=	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	19	0%	-	-	0%	-	-	0%	-	19	0%
7205 - Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers	2	23	9%	-	-	0%	2	3	67%	4	26	15%
7233 - Sheet Metal Workers	5	18	28%	-	-	0%	-	-	0%	5	18	28%
7234 - Boilermakers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7236 - Ironworkers	11	63	17%	-	-	0%	-	-	0%	11	63	17%
7237 - Welders and Related Machine Operators	1	14	7%	-	-	0%	1	1	100%	2	15	13%
7242 - Industrial Electricians	26	171	15%	-	-	0%	9	19	47%	35	190	18%
7244 - Electrical Power Line and Cable Workers	1	4	25%	-	-	0%	9	9	100%	10	13	77%
7251 - Plumbers	1	2	50%	-	-	0%	1	1	100%	2	3	67%
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	5	45	11%	-	-	0%	-	-	0%	5	45	11%
7271 - Carpenters	31	145	21%	-	-	0%	-	-	0%	31	145	21%
7281 - Bricklayers	6	64	9%	-	-	0%	-	-	0%	6	64	9%
7293 - Insulators	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7294 - Painters and Decorators (except interior decorators)	-	16	0%	-	-	0%	-	-	0%	-	16	0%
7301 - Contractors and supervisors, mechanic trades	1	9	11%	-	-	0%	-	-	0%	1	9	11%
7302 - Contractors and supervisors, heavy equipment operator crews	-	10	0%	-	-	0%	-	-	0%	-	10	0%
7311 - Construction Millwrights and Industrial Mechanics	7	80	9%	-	-	0%	2	4	50%	9	84	11%
7312 - Heavy- Duty Equipment Mechanics	4	13	31%	-	-	0%	1	1	100%	5	14	36%
7371 - Crane Operators	5	19	26%	-	-	0%	-	-	0%	5	19	26%
7372 - Drillers and Blasters - Surface Mining, Quarrying and Construction	-	-	0%	-	-	0%	-		0%	_		0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	9	18	50%	-	-	0%	2	4	50%	11	22	50%
7511 - Transport Truck Drivers	20	39	51%	-	-	0%	-	-	0%	20	39	51%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	19	22	86%	-	-	0%	-	-	0%	19	22	86%
7521 - Heavy Equipment Operators (Except Crane)	24	51	47%	-	-	0%	2	2	100%	26	53	49%
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	14	21	67%	-	-	0%	1	1	100%	15	22	68%
7612 - Other Trades Helpers and Labourers	94	122	77%	-	-	0%	3	4	75%	97	126	77%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
9241 - Power Engineers and power system operators	-	-	0%	-	-	0%	1	3	33%	1	3	33%
Totals	417	1,399	30%	2	6	33%	76	206	37%	495	1,611	31%

Appendix B – Contracts Awarded Since Project Sanction

Table 29 - Contracts Awarded Since Project Sanction

Package #	Package Title	Award Date	Successful Bidder(s)
CH0011-002	Civil Works Agreement Intake, Powerhouse,	15-Feb-19	Pennecon Heavy Civil Limited
	Transition Dams & Spillway – Remaining		
	Construction		
CH0031-001	Supply and Install Mechanical and Electrical	16-Jun-17	Cahill-Ganotec Joint Venture
	Auxiliaries (MF)		
CH0052-002	Muskrat Falls Habitat Compensation Works	18-Aug-2016	Johnsons Construction Limited
CH0049-004	Installation of Debris/Ice/Safety Boom	18-Jul-2016	Johnson's Construction Limited
CT0327-024	350 kV HVdc Long Range Mountains (LRM)	18-May-2016	Mike Kelly & Sons Ltd.
	Access Clearing	, ,	,
CH0049-003	Fabrication and Supply of Debris, Ice, Safety	7-Apr-2016	M&M Offshore Ltd.
01100 15 005	Boom	7 Apr 2010	Main onshore Eta.
CT0327-051	HVdc Clearing – Blocks 17 & 18	01-Apr-16	Springdale Forest Resources Inc.
CD0501-001	Supply and Install Permanent Communication	21-Mar-16	Bell Aliant Regional Communications,
CD0301-001		21-IVIdI-10	_
000504 004	Systems, Optical Transport Network (OTN)	2.14 46	L.P.
CD0501-004	Transition Compounds – Civil Works	2-Mar-16	Pennecon Heavy Civil Limited
SM0700-024	Transportation of Transmission Line Material	07-Jan-16	Hunt's Transport
	(Island of Newfoundland)		PTL Services / CSL Services
			Christopher's Trucking
			Akita Equipment & Auto Transport
CD510-002	Supply and Install Permanent Communications	06-Jan-16	Talon Energy Services Inc.
	Systems-Prefabricated Buildings		
CT0327-017	HVdc Clearing and Access – Blocks 15 & 16	18-Sept-15	Springdale Forest Resources
CH0009-001	Construction of North and South Dams	14-Aug-15	Barnard Pennecon Limited Partnership
CT0342-002	Transmission Line Construction (HVac 230kV	11-Aug-15	Locke's Electrical Limited
	Modifications and NL Electrode Line)		
LC-PM-186	Project Completion System	23-Jun-15	IBS Canada
CD0508	Supply and Install Electrode Sites	02-Mar-15	H.J.O' Connell Construction Ltd.
CT0327-015	HVdc Clearing and Access – Section 1 (Blocks	09-Jan-15	Johnson's Construction Limited
	Nos. 9, 10, 11, and 12)		
CH0008	North Spur Stabilization Works	23-Dec-14	Gilbert Newfoundland & Labrador
			Contracting Limited
CT0327-014	HVdc Clearing and Access – Section 1 (Blocks	19-Dec-14	Springdale Forest Resources Inc.
CT0227 011	Nos. 13 & 14)	22 Con 14	COT Furtamentiana I tel
CT0327-011	HVdc Clearing and Access – Section 1 (Blocks	23-Sep-14	C&T Enterprises Ltd.
CT0327-013	Nos. 7 & Partial 6) HVdc Clearing and Access-Section 1 (Blocks 4, 5	2-Sep-14	Johnson's Construction Limited
C10327-013	and 6)	2-3ep-14	Johnson's Constituction Limited
CD0502	Construction of AC Substations	22-Aug-14	Alstom Grid Canada, Inc.
CT0342	Construction of AC Transmission Lines – Island	19-Aug-14	Locke's Electrical Limited
CD0534	Supply & Install Synchronous Condensers at	15-Aug-14	ALSTOM Renewable Power Canada
	Soldiers Pond		Inc.
CT0327	Construction of 350kV HVdc Transmission Line	8-Aug-14	Valard Construction LP
PH0015	Supply of Isolated Phase Bus	25-Jul-14	Alfa Standard s.p.a
CT0327-010	HVdc Clearing and Access-Section 1	22-Jul-14	Springdale Forest Resources
CD0501	Supply & Install Converters and Cable	19-Jun-14	Alstom Grid Canada Inc.
	Transition Compounds		

Package #	Package Title	Award Date	Successful Bidder(s)
PT0331	Supply of Tower Hardware 450 kV HVdc	28-May-14	Slacan Industries
		·	Performed Line Products Limited
CH0034	Supply & Install Powerhouse Elevator	29-Apr-14	Thyssen Krupp Elevator
PT0353	Supply of Optical ground Wire (OPGW) 350 kV	16-Apr-14	Suzhou Furukawa Power Optic Cable
	HVdc		Co.
PT0334	Supply of Steel Wires – 350 kV HVdc	14-Apr-14	Wire Rope Industries Ltd.
SD0564	Provision of Camp Services (CF)	8-Apr-14	Labrador Catering Ltd. Partnership
SH0041	Provision of Ground Transportation Services	14-Mar-14	PENCAL Supplies Ltd & SBH
	(HVGB-MF)		Enterprises Inc., A Joint Venture
LC-SB-011	Subsea Rock Protection Design, Supply and Installation	7-Mar-14	Tideway (Luxembourg) S.A.
SM0709	Provision of Air Transportation	10-Feb-14	Innu Mikun Ltd. Partnership and PAL
31010709	Provision of All Transportation	10-760-14	Airlines
SM0705	Provision of Laboratory Services	10-Feb-14	AMEC Americas Limited
PH0014	Supply of Generator Step-Up Transformers	10-Feb-14	ABB Inc.
PD0537	Supply of Power Transformers, AC Substations	10-Feb-14	ABB Inc.
1 20337	at CF, MF and SP	10 100 11	7.65 me.
SH0040	Provision of Garbage Removal and Disposal	23-Jan-14	Pardy's Waste Management &
	Services (MF)		Industrial Services
PH0016	Supply of Generator Circuit Breakers	17-Jan-14	ABB Inc.
PT0328	Supply of Transmission Line Conductors-350 kV	2-Jan-14	General Cable Company Ltd. and
	HVdc		Midal Cables Ltd.
PT0356	Stockbridge Dampers	20-Dec-13	Performed Line Products (Canada) Ltd.
PT0308	Supply of Steel Tower Foundations 350kV HVdc	20-Dec-13	Locweld Inc.
CH0032	Supply & Install Powerhouse & Spillway Hydro- Mechanical Equipment	19-Dec-13	Andritz Hydro Canada Inc.
PT0352	Supply of Anchor Materials 350 kV HVdc	18-Dec-13	Williams Form Hardware & Rockbolt (Canada) Ltd.
CT0319	AC Transmission Line Construction	17-Dec-13	Valard Construction LP
SH0018	Camp Catering, Housekeeping and Janitorial Services	16-Dec-13	Labrador Catering Limited Partnership
LC-SB-034	Conduit End Exit Verification	13-Dec-13	DOF Subsea Canada
CH0033	Supply & Install Powerhouse Cranes	9-Dec-13	Groupe LAR Inc.
LC-SB-027	Supply of Casing	4-Dec-13	East Coast Tubulars Ltd.
CH0007	Construction of Intake and Powerhouse	29-Nov-13	Astaldi S.p.A
	Spillway and Transition Dams		
SH0022	Provision of Fuel Supply & Dispensing Services	18-Nov-13	Woodward's Oil Limited and Utapan
			Fuels Limited, a Joint Venture
CT0341	Clearing of Right Of Way for 315kV HVac	15-Nov-13	Great Western Forestry Inc.
LC-SB-026	Transmission Line (MF to CF) Drill Bits and Tooling	14-Nov-13	HALLIBURTON
LC-3B-020	Drill bits and Tooling	14-1100-13	Dreco Energy
			Baker Hughes Canada
			Smith Bits A Schlumberger Company
LC-SB-036	Conduit End Connection	12-Nov-13	Kongsberg Oil and Gas Technologies
CD0503-002	Construction of Earthworks at Soldier's Pond	18-Oct-13	H.J. O'Connell
PT0330	Supply of Steel Towers-350 kV HVdc	10-Oct-13	Jyoti Amercias LLC
SM0700	Provision of Freight Forwarding Services	3-Oct-13	Panalpina Inc., Panprojects Division
LC-SB-023	Drilling Fluids Services for HDD Program	6-Sep-13	M-I SWACO, a Division of Schlumberger Canada Limited

Package # LC-SB-024 CD0503-001	Package Title Directional Services for HDD Program	Award Date 6-Sep-13	Successful Bidder(s) Baker Hughes Canada Company	
CD0503 001			Saker Hagnes Canada Company	
	Construction of Earthworks at Churchill Falls	5-Sep-13	Johnson's Construction Limited	
CD0303-001	Construction of Earthworks at Churchin Fails	5-3ep-15	Johnson's Construction Limited	
LC-SB-021	Civil Works-SOBI	22-Aug-13	C&T Enterprises Limited	
PH0058	Supply of 600 V Switchgear	25-Jul-13	ABB Inc.	
PT0329	Supply of Insulators 350 kV HVdc	22-Jul-13	Seves Canada Inc.	
CH0003	Supply and Install Administrative Buildings	19-Jul-13	Opron Construction Inc.	
LC-SB-022	Provision of Drilling Rig and Surface Spread for HDD Program	19-Jul-13	Direct Horizontal Drilling Inc.	
CT0354	HVAC Marshalling Yard Civil and Electrical Works	17-Jul-13	Johnson's Construction Limited	
ST0311	Provision of Survey Services (315) kV HVac	10-Jul-13	MMM Group Limited & N.E. Parrott Surveys Limited, a joint venture	
SM0704	Provision of Surveying Services	14-Jun-13	Edwards & Associates Ltd.	
SD0565	Provision of Geotech Investigation Shoreline Pond Electrodes	6-Jun-13	Stantec Consulting Ltd.	
PT0335	Supply of Anchor Materials – 315 kV HVac	22-Oct-13	Williams Form Hardware & Rockbolt (Canada) Ltd.	
CH0024	Construction of Reservoir Clearing North Bank	25-Apr-13	Johnson Construction Ltd.	
PT0303	Supply of Hardware 315 kV HVac	17-Apr-13	Mosdorfer GmbH (Austria)	
PT0300	Supply of Transmission Line Conductors 315 kV HVac	5-Apr-13	Midal Cables Ltd.	
SM0713	Provision of Geotechnical Investigation Services	27-Mar-13	AMEC Environment & Infrastructure	
SM0701	Provision of 3rd Party Quality Surveillance and Inspection Services	18-Mar-13	SGS Canada Inc. Killick Group Ltd. GL Noble Denton Canada Ltd Moody International Ltd.	
PT0307	Supply of Tower Foundations-315 kV HVac	5-Mar-13	Fabrimet	
PT0302	Tower Steels for AC Lines	6-Feb-13	ŞA-RA Energy, Construction, Trade and Industry Inc.	
PT0326	Supply of Steel Wires-315 kV HVac	28-Jan-13	Graybar Canada	
PT0304	Optical Ground Wire Conductors (OPGW) 315 kV HVac		PT0304-001 Mosdorfer North Caroline Inc. PT0304002 Suzhou Furukawa Power Optic Canada Inc.	
PT0301	Supply of Insulators 315 kV HVac	18-Jan-13	Seves Canada Inc.	
SH0054	Temporary Site Services	10-Jan-13	Labrador Catering Limited Partnership	
CH0030	Turbines and Generators	2-Jan-13	Andritz Hydro Canada Inc.	
LC-SB-003	Submarine Cable Design, Supply and Install	29-Nov-12	Nexans Norway AS	

Package #	Package Title	Award Date	Successful Bidder(s)
LC-SB-018	Provision of Third Party Equipment,	27-Nov-12	Lloyd's Register North America
	Manufacturing, Supply, and Installation		Spectrol Group
	Surveillance Service		
CH0006	Bulk Excavation Works	6-Nov-12	IKC-ONE Earthworks Constructors, a
			Partnership
SH0019	Provision of Security Services	1-Nov-12	Speuata Security Inc.
SH0020	Provision of Medical Services	1-Nov-12	Innu - Med Inc.
CH0002	Supply and Install Accommodations Complex Buildings	22-Oct-12	Liannu Limited Partnership
PH0038	Supply of Emergency Diesel Generator	12-Oct-12	Toromont CAT, a division of Toromont industries Ltd
LC-SB-017	Ocean Characteristic Monitoring and MetOcean Report	13-Sep-12	AMEC Environment & Infrastructure A Division of AMEC Americas
PH0036	Supply of Auxiliary Transformers	13-Aug-12	MVA Power
CD0512	Construction Contract for Construction Power	20-Jun-12	G.J. Cahill & Company Ltd.
CH0004	Southside Access Road	25-Oct-12	Liannu
CH0048	Site Clearing Access Road & Ancillary Areas	20-Apr-12	Nukum Forestry Ltd
PD0522	Pre-Fabricated Control Room Building	11-Apr-12	Automatisation Grimard Inc.
PD0531	MV Instrument Transformer (Combined CT&PT Unit)	19-Mar-12	ABB Inc.
PD0515	138 kV and 25 kV Disconnect Switches (with and without ground switches)	13-Feb-12	Alstom Grid
PD0514	135 kV and 25 kV Circuit Breakers (dead tank type)	6-Feb-12	Alstom Grid Via Power Systems Consulting
PD0518	138 kV Capacitor Voltage Transformers (CVTs)	6-Feb-12	Alstom Grid Via Power Systems Consulting
PD0519	25 kV Vacuum Interrupters	6-Feb-12	Siemens Canada Limited
PD0520	25 kV 6×4 MVAR Capacitor Banks	6-Feb-12	ABB
PD0529	25 kV Reclosers	6-Feb-12	Siemens Canada Limited
PD0530	138 kV and 25 kV Class Surge Arresters	6-Feb-12	Graybar Canada
PD0523	Substation Service Transformers	19-Jan-12	Carte International Inc
LCP 00728	Web-Based Employment and Expenditure Tracking and Reporting Software	22-Aug-11	SCI Resource Software Inc.
LC-SB-002	Iceberg Tracking Program	19-Aug-11	Provincial Aerospace LTD. (PAL)
LC-SB-007	2011 HDD Pilot Bore Field Investigation Program	19-Aug-11	Mears Canada Corp.



Muskrat Falls Project Monthly Report April 2019

June 21, 2019



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1.0 Monthly Report Overview

This report¹ provides the monthly update for April 2019 on the following projects associated with the Muskrat Falls development:

- the 824 megawatt (MW) hydroelectric development at Muskrat Falls (the Muskrat Falls hydroelectric generating facility);
- two 315 kilovolt (kV) High Voltage alternating current (HVac) transmission lines between Muskrat Falls and Churchill Falls (the Labrador Transmission Assets); and
- the 1,100 km long High Voltage direct current (HVdc) transmission line between Muskrat Falls and Soldiers Pond (the Labrador-Island Transmission Link).

Included in this report are details on construction activities and costs, safety and environmental activities, procurement information, and details on stakeholder and community engagement initiatives during the reporting period. The report also provides detailed statistical tables summarizing employment and expenditure benefits generated from the Muskrat Falls development.

2.0 Construction Progress this Month

Construction of the Muskrat Falls Project progressed during the month on both the generation and transmission components. As of the end of April:

- overall construction of the Muskrat Falls Project is 98% complete;
- the Muskrat Falls generation project is 95% complete;
- both the Labrador-Island Transmission Link and the transmission line connecting Churchill Falls to Muskrat Falls remained at over 99% complete.

3.0 Construction Update

3.1 Muskrat Falls Hydroelectric Generating Facility

The following outlines some of the construction activities for the components of the Muskrat Falls hydroelectric generation facility undertaken in April:

- Pennecon Heavy Civil Ltd. continued to undertake civil work on the Intake and Powerhouse. In the Intake continuation of work on punch lists items for Intake 1 and 2; primary work and structural, piping, architectural and electrical work is ongoing at Intake 3 and 4. In the Powerhouse, work is ongoing to achieve pit free at Units 3 and 4.
- Andritz Hydro Canada Inc. completed the assembly of the runner; rotor and head cover for Unit 1 in the South Service Bay.
- Cahill-Ganotec continued mechanical completion and commissioning activities throughout the powerhouse.
- Andritz Hydro Canada Inc. began assembly of the trash rack cleaning machine.

-

¹ This report is prepared by Lower Churchill Management Corporation (LCMC), the Nalcor Energy subsidiary responsible for managing the construction of the Muskrat Falls hydroelectric generating facility, the Labrador Transmission Assets and the Labrador-Island Transmission Link.



North Dam – looking north towards the Knoll



Intake and Intake Channel



North Dam and Spillway



Unit 1 in the Powerhouse



Assembly of turbine and generator parts in the South Service Bay of the Powerhouse

3.2 Labrador Transmission Assets (LTA)

Construction of LTA is complete. Activities on the LTA continued during the month with work on punch list items at both the Churchill Falls and Muskrat Falls switchyards. Finalization of access road reclamation work is in progress.

3.3 Labrador-Island Transmission Link (LIL)

Construction of the transmission line from Muskrat Falls to Soldiers Pond is complete. Activities for LIL continued during the month and included:

- Continuation of HVdc Control System software development.
- Continuation of work on punch list items at the Soldiers Pond AC Switchyard.
- Continuation of Pole 1 and Pole 2 punch list items and Pole 2 static commissioning activities at the Muskrat Falls and Soldiers Pond Converter Stations.
- Continuation of work on punch list items at the Forteau Point and Shoal Cove Transition Compounds.
- Continuation of static commissioning activities at the Soldiers Pond Synchronous Condenser site.

3.4 Construction Cost Summary

The current facilities capital cost estimate of the Muskrat Falls Project is \$10.1 billion. The total cost including interest during construction and capitalized financing costs is \$12.7 billion (see Table 1).

3.4.1 Incurred Cost Overview

Table 1 summarizes the incurred costs for the project for the month of April and for the project to date. Incurred costs refer to the value of work performed during the period regardless of it being paid during the current period or at some point in the future.

Table 1 - Estimate and Incurred costs for Muskrat Falls Project to April 2019 (Costs in millions of CAD \$)*

Project Component	Current Cost	Incurred Cost	Incurred Cost Project
	Estimate	Current Month	to Date
Muskrat Falls Hydroelectric	\$5,500	\$58	\$4,814
Generating Facility			
Labrador Transmission Assets	\$904	\$1.1	\$856
Labrador-Island Transmission Link	\$3,714	\$5.6	\$3,516
Total	\$10,118	\$64.7	\$9,186

^{*} Value excludes interest during construction and capitalized financing costs.

3.4.2 Monthly Expenditure Overview

- Total expenditures paid for the Muskrat Falls Project were over \$72 million in April 2019. This included over \$40 million paid to Newfoundland and Labrador businesses.
- From January 2013 to the end of the reporting period in April 2019, \$2.96 billion has been spent directly with Newfoundland and Labrador-based companies.
- The cumulative expenditures made to NL business since Project Sanction is illustrated in Figure 1.

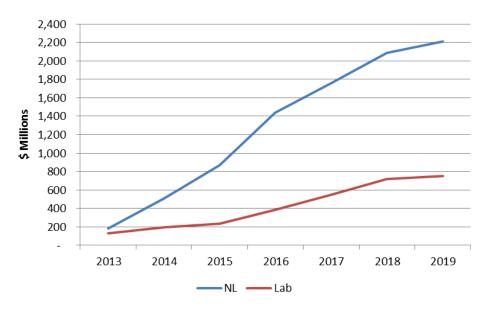


Figure 1 - Cumulative Expenditures to Newfoundland and Labrador Businesses (Jan 2013 to April 2019)

4.0 Safety and Environment

4.1 Safety

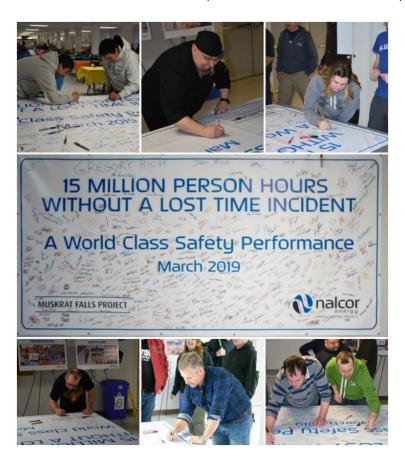
LCP and all contractors working on the Muskrat Falls Project have a relentless commitment to the safety of workers and the public. Table 2 outlines the Health and Safety indicators and measurements for the month of April and for the project to date.

Table 2 - Health and Safety Indicators and Measurements - April 2019 and Project to Date

Indicator	April 2019	Project to Date
Orientations completed	121	56,521
Safety Step Backs completed	8,460	1,914,721
Work site inspections	322	99,391
Lost-time injuries	0	16
Medical aid incidents	0	114

Safety Celebration: 15 Million Person Hours Without a Lost-time Incident

On April 22, this milestone and commitment to safety was celebrated in the Big Land Lodge at Muskrat Falls site. Gilbert Bennett and representatives from Trades NL expressed their appreciation to the team.



Photos taken during 15 million person hour celebration

Muskrat Falls Project Recognized with Health and Safety Distinction Award

On April 29, Gilbert Bennett and Darin King, Executive Director of Trades NL, accepted a prestigious Health and Safety Distinction Award from Canada's Building Trades Unions (CBTU) in Ottawa in recognition of our safety performance.

The CBTU selected the Muskrat Falls Project for our dedication and commitment to health and safety. The project received one of the four distinction awards that recognize the contributions of industry for their demonstrated commitment to support, build and transform the lives of Canadians through leadership development, skill growth, positive community impact, personal accountability or health and safety.



Photo of LCP executive management receiving safety award along with members from the CBTU and Trades NL.

4.2 Environment

Meeting our Environmental Assessment Commitments

The LCP Environment and Regulatory Compliance (ERC) Team is committed to maintaining a high standard of environmental responsibility that will help to sustain a diverse and healthy environment for generations of Newfoundlanders and Labradorians.

Throughout the environmental assessment processes for the both the Lower Churchill Hydroelectric Generation Project and the Labrador-Island Transmission Link, Nalcor made nearly 500 environmental commitments during the environmental assessment process for both projects. The environmental assessment release orders require Nalcor to meet each of these environmental commitments.

To ensure fulfillment of each of these commitments, Nalcor tracks each commitment and documents how each commitment has been or will be met. This process has been ongoing since 2012 when the Generation Project was released from environmental assessment, and since 2013 for the Transmission Project. Initially, three main status categories were defined for tracking the progress of the commitments: 1) proposed, 2) ongoing, and 3) completed.

Completed commitments are those that have been fulfilled. Ongoing commitments are commitments that have a plan to meet the commitment which may include audits, annual reports, etc., that are continuing to be met throughout the construction phase and/or the operations phase. Future

(proposed) commitments are those that are associated with a different phase of the project, e.g., operations or those associated with the Gull Island Hydroelectric Development.

With the completion of the construction phase of several components (e.g., Strait of Belle Isle Subsea Crossing, ac transmission line between Muskrat Falls and Churchill Falls, the transmission line between Muskrat Falls and Soldiers Pond) many of the commitments have been categorized as completed.

One of Nalcor's corporate goals is to be an environmental leader; as a result we have developed and solidified our commitment to the environment though our Environmental Policy and Guiding Principles. Along with these commitments Nalcor has developed its own Environmental Management System (EMS) which has been certified to the ISO 14001:2015 standard in 2018. This standard is integral component of our business operations and governs all our activities to ensure we operate in an environmental responsible manner. The ISO standard defines an EMS as a management system "used to manage environmental aspects, fulfill compliance obligations and address risks and opportunities". Environmental commitments are tracked as a part of the Standard as compliance obligations in relation to specific site activities, as well as, in the evaluation of our operations aspects for determining their environmental significance.

As of April 2019, the Transmission Link has 216 commitments completed, and 50 that are considered ongoing, many of which are operational commitments that have been or will be turned over to Nalcor to ensure completion during the operations phase. The Generation Project has 89 commitments completed, 126 that are currently ongoing with approximately half of which are identified as operational commitments and will be turned over for the operations phase.

5.0 Employment, Benefits and Community Engagement

This section provides information on employment benefits generated during the month as well as details on some of the community activities undertaken during the month. Some of these activities are part of commitments made by LCP through the Benefits Strategy with the provincial government, the Impacts and Benefits Agreement (IBA) with Innu Nation, the Gender Equity and Diversity Program, and provincial and federal environmental regulatory commitments.

5.1 Employment Highlights

The employment highlights for the month of April are summarized below. Detailed employment information and statistics are outlined in Section 8.

- In April, over 315,000 hours were worked by 1,984 individuals on the projects, including over 285,000 hours of work in Labrador.
- During the month of April, 1,836 residents of Newfoundland and Labrador were employed on the projects, representing 93 per cent of the total persons employed.
- In April, there were 1,758 people working in Labrador, of whom 469 were Labrador residents (approximately 27 per cent). Of these 469 Labrador residents, 195 self-identified as a member of a Labrador Aboriginal group (approximately 42 per cent). A breakdown of the employment in Labrador by affiliation is shown in Figure 2 below.

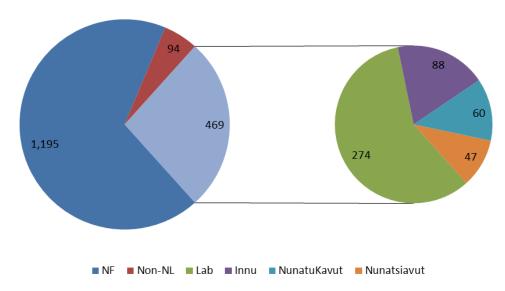


Figure 2 - Employment in Labrador by Affiliation (April 2019)

5.2 Recruitment Activities

Employers continue to utilize <u>muskratfallsjobs.com</u> as a tool to find qualified residents of the province to fill available positions. The website also details current opportunities with the LCP Project Delivery Team as well as contact information for LCP recruitment service providers.

5.2.1 Workplace Orientation

To foster a safe and respectful workplace, all workers complete mandatory training in site safety rules and procedures, respectful workplace protocols, and gender and cultural awareness.

5.2.2 Labrador Aboriginal Training Partnership (LATP) Support

The LATP continued to offer client counseling to Aboriginal individuals seeking employment, as well as providing funding support for safety certifications. While LCP is no longer the industry partner in this organization, as the LATP has engaged with Vale for a multi-year project, LATP still has the ability to assist clients who may be connected to employment at Muskrat Falls.

5.3 Gender Equity and Diversity

5.3.1 Employment of Women

In April, 248 women were working on all project components, comprising approximately 13 per cent of the total workforce. Of these, 106 were working in construction, 11 in engineering, 53 in project management, and 78 in project support. Of the 248 women working on the project, 232 of them are Newfoundland and Labrador residents. Table 3 below breaks down the types of jobs held by female workers during April.

Table 3 - Types of Jobs Worked by Females (April 2019)

Job Type	Number
Camp and Catering Staff	51
Administrative Staff	36
Other trades	29
General Labourer	26
Other professional	16
Engineering	15
Financial/Accounting Staff	12
Procurement	11
H&S Staff	9
Student	8
EMR/security	8
Carpenter/Scaffolder	7
HR Staff	6
Heavy Equipment Operator	4
Civil Technologist	4
Electrician	3
Other technical	2
Environmental Staff	1
Total	248

5.3.2 Promoting Women in Trades

LCP continued to work closely with the Office to Advance Women Apprentices (OAWA) to support female apprentices gain employment on the Project, as well as addressing issues with those already employed.

5.4 Employment of Students and Apprentices

LCP supports the hiring of students and apprentices. Statistical data on the hiring of students and apprentices is provided in the following sections.

5.4.1 Employment of Students

In the first quarter of 2019, there were 40 students working on the Muskrat Falls Project. Figure 3 below illustrates the quarterly time profile of students working on the Project between the first quarter of 2016 and the end of the first quarter of 2019.

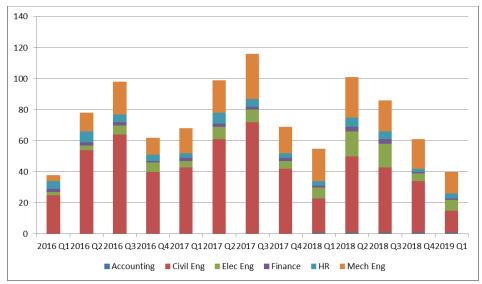


Figure 3 - Employment of Students by Quarter (Q1 2016 to Q1 2019)

5.4.2 Employment of Apprentices

During the first quarter of 2019, 232 apprentices were working on the project, including 30 females. Figure 4 below illustrates the quarterly time profile of apprentices working on the Project between the first quarter of 2016 and the end of the first quarter of 2019.



Figure 4 - Employment of Apprentices by Quarter (Q1 2016 to Q1 2019)

5.5 Labrador Innu Initiatives - Impacts and Benefits Agreement (IBA) Implementation Activities

During the month of April, 88 Innu were employed at Muskrat Falls and transmission line sites in Labrador. Innu employees were working in a wide range of occupations, including construction trades, labourers, camp accommodations and food services. The Innu workforce included persons occupying management, apprenticeship, foreperson and shop steward positions.

5.6 Community Engagement

LCP has established multiple venues for members of the public to ask questions, seek employment information, and get details about the Muskrat Falls development. LCP has a website that provides information on project construction activities (muskratfalls.nalcorenergy.com). In addition, people can contact LCP through the toll-free number, by email, or by visiting the project office in Happy Valley-Goose Bay.

Nalcor also uses Facebook @NalcorEnergy to share updates about construction activities as well as to provide information to stakeholders living around the Muskrat Falls facility in central Labrador.

6.0 Definitions

Term	Definition
Benefits Strategy	Lower Churchill Construction Project Benefits Strategy as agreed by the Province of Newfoundland and Labrador and LCP.
Expenditures	Expenditures for the month are defined as those expenditures from invoices which have been approved for payment during the month.
Incurred Costs	Value of work performed during the period (month) regardless of it being paid during the current period or at some point in the future.
Industry Category	Based on the North American Industry Classification System (NAICS) and used to categorize companies for expenditure reporting.
Island or NF	Refers to the residency of employees, the location of work completed or the location of a company; includes residents from, work done on or companies located on the island portion of NL.
NOC Code	Occupational codes from the National Occupational Classification system, which is the standard system for classifying jobs in Canada. It is a hierarchical structure with four levels of classifications. Both the 2-digit and 4-digit classifications are used in this report.
Person Hours	Hours worked by individuals on the project.
Persons Employed	Any person who has worked at any time on the Project during the time period referenced.
Project to Date	Cumulative totals for the period from February 1, 2013 up to the end of the current month.
Residents	Residents of Newfoundland and Labrador who meet the requirements as defined in the Benefits Strategy.

7.0 Abbreviations and Acronyms

Abbreviation/Acronym	Definition
BMRS	Benefits Monitoring and Reporting System
C&A	Construction and Assembly
CBTU	Canada's Building Trades Unions
CLC	Community Liaison Committee
CNA	College of the North Atlantic
CPR	Cardiopulmonary Resuscitation
CTD	Centre Transition Dam
E&D	Engineering and Design
EMC	Environmental Management Committee
EMS	Environmental Management System
EPP	Emergency Preparedness Plans
ERC	Environment and Regulatory Compliance
FAT	Factory Acceptance Testing
GIS	Gas Insulated Switchgear
GPR	Ground Penetrating Radar
HDD	Horizontal Directional Drilling
HHRA	Human Health Risk Assessment
HVac	High voltage AC transmission
HVdc	High voltage DC transmission
IBA	Impacts and Benefits Agreement
INT	International (Location of Work or Company)
ISO	International Standards Organization
kV	Kilovolt
LATP	Labrador-Aboriginal Training Partnership
LCP	Lower Churchill Project
LIL	Labrador-Island Transmission Link
LRM	Long Range Mountains
LTA	Labrador Transmission Assets
MeHg	Methylmercury
MFG	Muskrat Falls Hydroelectric Generation Facility
MW	Megawatt
NLESA	Newfoundland and Labrador Endangered Species Act
NLOWE	Newfoundland and Labrador Organization of Women Entrepreneurs
OAWA	Office to Advance Women Apprentices
ОС	Other Canada
OSEM	On-site Environmental Monitor
PEGNL	Professional Engineers and Geoscientists of Newfoundland and Labrador
PM	Project Management
RCC	Roller-compacted concrete
Res	Residents of Newfoundland and Labrador
RFP	Request for Proposal
ROW	Right of Way
SOBI	Strait of Belle Isle
T&G	Turbine and Generator
THg	Total Mercury
TTO	Transition to Operations

8.0 Employment Benefits

All information on employment is provided by both person hours and the number of persons employed for the following categories:

- Total employment
- Employment by NOC Code
- Employment by Location of Work
- Employment by Aboriginal Affiliation
- Employment by Gender

8.1 Total Employment

Tables 4 through 6 break out the project employment in both person hours and persons employed by location of work and residency.

Table 4 - Person Hours of Employment by Location of Work and Residency (April 2019)

	Residency								
	Island		Labrador		Other Canada		Non-Canadian		
Work Location	at Location	% of Total	at Location	% of Total	at Location	% of Total	at Location	% of Total	Total
Island	22,974	79.1%	422	1.5%	4,597	15.8%	1,037	3.6%	29,030
Labrador	199,027	69.7%	70,275	24.6%	15,099	5.3%	1,023	0.4%	285,424
Other Canada	-	0.0%	-	0.0%	687	100.0%	-	0.0%	687
International	-	0.0%	-	0.0%	160	100.0%	-	0.0%	160
Total	222,001	70.4%	70,697	22.4%	20,543	6.5%	2,060	0.7%	315,301

Table 5 - Person Hours of Employment by Location of Work and Residency (Project to Date)

		Residency							
	Island		Labrador		Other Canada		Non-Canadian		
Work Location	at Location	% of Total	at Location	% of Total	at Location	% of Total	at Location	% of Total	Total
Island	6,285,276	80.7%	199,624	2.6%	1,163,269	14.9%	138,593	1.8%	7,786,762
Labrador	21,202,982	58.6%	9,548,634	26.4%	5,054,784	14.0%	398,795	1.1%	36,205,194
Other Canada	8,940	2.3%	-	0.0%	363,878	95.6%	7,618	2.0%	380,436
International	-	0.0%	-	0.0%	9,690	12.2%	69,997	87.8%	79,687
Total	27,497,198	61.9%	9,748,258	21.9%	6,591,621	14.8%	615,002	1.4%	44,452,079

Table 6 - Number of Persons Employed by Location of Work and Residency (April 2019)

	Residency								
	Island		Labrador		Other Canada		Non-Canadian		
Work Location	at Location	%of Total	at Location	%of Total	at Location	%of Total	at Location	%of Total	Total
Island	169	79.7%	3	1.4%	34	16.0%	6	2.8%	212
Labrador	1,195	68.0%	469	26.7%	89	5.1%	5	0.3%	1,758
Other Canada	-	0.0%	-	0.0%	13	100.0%	-	0.0%	13
International	-	0.0%	-	0.0%	1	100.0%	-	0.0%	1
Total	1,364	68.8%	472	23.8%	137	6.9%	11	0.6%	1,984

8.2 Employment by NOC Code

Tables 7 and 8 summarize project employment by 2-digit NOC Code. Appendix A contains an overview of the methodology used to capture employment by job title and how that information is converted to NOC codes. In addition, occupational information by 4-digit NOC code as well as information on employment by NOC code and gender, Aboriginal affiliation and for residents of Labrador is also provided in Appendix A.

Table 7 - Person Hours of Employment by 2-Digit NOC Code (April 2019 and Project to Date)

		Current	Month			Project	to Date	
2-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
00 - Senior management occupations	219	-	984	1,203	133,378	8,008	79,481	220,866
01-05 - Specialized middle management occupations	2,660	476	1,877	5,013	520,064	121,295	400,016	1,041,375
07-09 - Middle management occupations in trades, transportation,	1 512		2.420	4.041	670.490	12 240	257,703	040 422
production and utilities	1,512	-	3,429	4,941	670,480	12,249	257,703	940,432
11 - Professional occupations in business and finance	1,544	-	2,365	3,909	207,396	18,308	324,284	549,988
12 - Administrative and financial supervisors and administrative occupations	3,607	561	4,592	8,759	603,481	189,485	634,109	1,427,074
13 - Finance, insurance and related business administrative occupations	200	48	298	546	105,892	15,520	137,561	258,973
14 - Office support occupations	1,948	-	-	1,948	326,469	72	5,052	331,593
21 - Professional occupations in natural and applied sciences	11,630	1,908	15,601	29,138	2,025,448	719,954	1,833,514	4,578,916
22 - Technical occupations related to natural and applied sciences	8,957	766	6,770	16,493	1,501,387	384,308	743,226	2,628,921
32 - Technical occupations in health	2,272	-	160	2,432	300,507	-	4,348	304,855
41 - Professional occupations in law and social, community and government	603	351	1,137	2,090	228,248	105,846	192,751	526,845
services	003	331	1,157	2,090	220,240	105,640	192,731	320,043
43 - Occupations in front-line public protection services	8,469	-	-	8,469	56,380	-	3,267	59,646
63 - Service supervisors and specialized service occupations	2,110	-	-	2,110	288,250	-	7,472	295,722
65 - Service representatives and other customer and personal services	2,242	150	_	2,392	592,017	12,703	6,593	611,312
occupations	2,242	130	_	2,332	332,017	12,703	0,595	011,312
67 - Service support and other service occupations, n.e.c.	14,358	-	-	14,358	1,612,471	-	4,142	1,616,613
72 - Industrial, electrical and construction trades	130,703	-	1,341	132,044	12,703,515	12,789	230,554	12,946,858
73 - Maintenance and equipment operation trades	24,552	-	-	24,552	2,256,834	2,193	48,708	2,307,734
74 - Other installers, repairers and servicers and material handlers	3,620	-	455	4,075	324,406	48	25,448	349,903
75 - Transport and heavy equipment operation and related maintenance	22,266			22,266	5,900,325	2,145	112,059	6,014,529
occupations	22,200	-	-	22,200	3,300,323	2,143	112,039	0,014,323
76 - Trades helpers, construction labourers and related occupations	28,041	-	-	28,041	6,622,532	3,995	110,981	6,737,509
82 - Supervisors and technical occupations in natural resources, agriculture					542,351		7,696	550,046
and related production	_	-	-	-	342,331	_	7,090	330,040
86 - Harvesting, landscaping and natural resources labourers	56	-	-	56	80,993	60	6,723	87,776
92 - Processing, manufacturing and utilities supervisors and central control	282		185	467	37,640		26,953	64,592
operators	202		103	407	37,040		20,933	04,332
All Occupation Categories	271,849	4,259	39,193	315,301	37,640,464	1,608,974	5,202,640	44,452,078

Table 8 - Residents Hired by 2-Digit NOC Code (April 2019)

	C&A			E&D			PM			Total		
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
2-Digit NOC	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
00 - Senior management occupations	2	3	67%	-	-	0%	1	4	25%	3	7	43%
01-05 - Specialized middle management occupations	16	19	84%	2	6	33%	10	12	83%	28	37	76%
07-09 - Middle management occupations in trades,	9	0	1000/			00/	1.4	10	740/	22	20	020/
transportation, production and utilities	9	9	100%	-	-	0%	14	19	74%	23	28	82%
11 - Professional occupations in business and finance	7	9	78%	-	-	0%	17	17	100%	24	26	92%
12 - Administrative and financial supervisors and	16	23	70%	5	5	100%	23	30	77%	44	58	76%
administrative occupations	10	23	70%	,	3	100%	23	30	11/0	44	36	70/0
13 - Finance, insurance and related business	1	1	100%	1	1	100%	2	2	100%	4	4	100%
administrative occupations	-	-		_	-		_	-			•	
14 - Office support occupations	12	12	100%	-	-	0%	-	-	0%	12	12	100%
21 - Professional occupations in natural and applied	53	70	76%	5	23	22%	72	99	73%	130	192	68%
sciences	33	, 0	7070				,-	33	7070	130	132	0070
22 - Technical occupations related to natural and applied	42	51	82%	9	10	90%	29	38	76%	80	99	81%
sciences	4.4	45	000/			20/			4000/	4-	4.6	0.40/
32 - Technical occupations in health	14	15	93%	-	-	0%	1	1	100%	15	16	94%
41 - Professional occupations in law and social, community	2	4	50%	1	3	33%	7	7	100%	10	14	71%
and government services	12	12	100%			0%		_	0%	12	12	100%
43 - Occupations in front-line public protection services	12	12	100%	-	-	U%	-		U%	12	12	100%
63 - Service supervisors and specialized service occupations	10	14	71%	-	-	0%	-	-	0%	10	14	71%
65 - Service representatives and other customer and												
personal services occupations	31	32	97%	1	1	100%	-	-	0%	32	33	97%
67 - Service support and other service occupations, n.e.c.	100	100	100%	_	_	0%	_	_	0%	100	100	100%
72 - Industrial, electrical and construction trades	810	827	98%	_		0%	9	10	90%	819	837	98%
73 - Maintenance and equipment operation trades	138	142	97%	_	_	0%	_	-	0%	138	142	97%
74 - Other installers, repairers and servicers and material									070			
handlers	19	19	100%	-	-	0%	3	3	100%	22	22	100%
75 - Transport and heavy equipment operation and												
related maintenance occupations	148	149	99%	-	-	0%	-	-	0%	148	149	99%
76 - Trades helpers, construction labourers and related	470	470	4000/			00/			00/	470	470	4000/
occupations	178	178	100%	-	-	0%	-	-	0%	178	178	100%
82 - Supervisors and technical occupations in natural			0%			0%			0%			0%
resources, agriculture and related production	-	-	U%	_	-	U70	_	-	U 70	_	-	U 70
86 - Harvesting, landscaping and natural resources	1	1	100%	_	_	0%	_	_	0%	1	1	100%
labourers	1	_	100/0			3 /0			3 /0	1	1	100/0
92 - Processing, manufacturing and utilities supervisors	2	2	100%	_	_	0%	1	1	100%	3	3	100%
and central control operators	_											
All Occupation Categories	1,623	1,692	96%	24	49	49%	189	243	78%	1,836	1,984	93%

8.3 Employment by Location of Work

Table 9 - Person Hours of Employment by Location of Work (April 2019 and Project to Date)

		Current	Period		Project to Date					
Work Location	C&A	E&D	PM	Total	C&A	E&D	PM	Total		
NL										
Island	4,955	3,534	20,541	29,030	3,604,615	1,114,850	3,067,297	7,786,762		
Labrador	266,504	588	18,332	285,424	33,784,074	325,979	2,095,362	36,205,415		
Total NL	271,459	4,122	38,873	314,454	37,388,690	1,440,828	5,162,659	43,992,177		
Other Canada	390	137	160	687	187,221	168,036	24,958	380,215		
Total Canada	271,849	4,259	39,033	315,141	37,575,911	1,608,864	5,187,617	44,372,392		
International	-	-	160	160	64,554	109	15,024	79,687		
All Locations	271,849	4,259	39,193	315,301	37,640,465	1,608,973	5,202,641	44,452,079		

Table 10 - Residents Hired by Location of Work (April 2019)

		C&A			E&D			PM		Total		
Work Location	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total
NL												
Island	43	44	98%	19	35	54%	110	133	83%	172	212	81%
Labrador	1,580	1,645	96%	5	5	100%	79	108	73%	1,664	1,758	95%
Total NL	1,623	1,689	96%	24	40	60%	189	241	78%	1,836	1,970	93%
Other Canada		3	0%	-	9	0%	-	1	0%	-	13	0%
Total Canada	1,623	1,692	96%	24	49	49%	189	242	78%	1,836	1,983	93%
International	-	-	0%	-	-	0%	-	1	0%	-	1	0%
Total	1,623	1,692	96%	24	49	49%	189	243	78%	1,836	1,984	93%

8.4 Employment by Aboriginal Affiliation

Table 11 - Person Hours of Employment by Aboriginal Affiliation (April 2019 and Project to Date)

		Curren	t Period		Project to Date					
Aboriginal Group	C&A	E&D	PM	Total	C&A	E&D	PM	Total		
Labrador Innu ^(a)	12,313	-	-	12,313	1,390,376	-	34,115	1,424,492		
Nunatsiavut ^(a)	6,943	-	-	6,943	995,706	23,146	37,430	1,056,282		
NunatuKavut ^(a)	8,869	140	396	9,405	1,283,417	14,290	42,014	1,339,720		
Other NL Aboriginal ^(a)	4,487	-	182	4,669	535,630	-	39,506	575,136		
Aboriginal - Other Canada	241	-	-	241	202,567	-	2,362	204,929		
Non-Aboriginal ^(b)	238,996	4,119	38,615	281,730	33,306,073	1,571,788	4,973,657	39,851,518		
All Groups	271,849	4,259	39,193	315,301	37,713,769	1,609,224	5,129,084	44,452,078		

⁽a) Also NL residents

Table 12 - Persons Employed by Aboriginal Affiliation (April 2019)

	C8	ı.A	E8	k D	PI	M	Tot	tal
Aboriginal Group	Persons	%	Persons	%	Persons	%	Persons	%
Residents								
Labrador Innu	88	5.4%	-	0.0%	-	0.0%	88	4.8%
Nunatsiavut	48	3.0%	-	0.0%	-	0.0%	48	2.6%
NunatuKavut	58	3.6%	1	4.2%	2	1.1%	61	3.3%
Other Aboriginal	26	1.6%	-	0.0%	1	0.5%	27	1.5%
All Aboriginal	220	13.6%	1	4.2%	3	1.6%	224	12.2%
Non-Aboriginal	1,403	86.4%	23	95.8%	186	98.4%	1,612	87.8%
Total	1,623	100%	24	100%	189	100%	1,836	100%
Non Residents								
Aboriginal – Canada	2	2.9%	-	0.0%	-	0.0%	2	1.4%
Non-Aboriginal	67	97.1%	25	100.0%	54	100.0%	146	98.6%
Total	69	100%	25	100%	54	100%	148	100%
Summary								
Aboriginal	222	13.1%	1	2.0%	3	1.2%	226	11.4%
Non-Aboriginal	1,470	86.9%	48	98.0%	240	98.8%	1,758	88.6%
Total	1,692	100%	49	100%	243	100%	1,984	100%

⁽b) Includes residents and non-residents

Tables 13 through 15 summarize the employment of Aboriginal people and non-Aboriginal people both in terms of hours worked and persons employed by location of work during the month and for the Project to Date.

Table 13 - Person Hours of Employment by Location of Work and Aboriginal Affiliation (April 2019)

	Labrador	Innu	NunatuKavut		Nunatsia	avut	Other Ab	original	Non-Abo	original	
Work	At		At		At		At		At		
Location	Location	%	Location	%	Location	%	Location	%	Location	%	Total
Island	-	0.0%	140	0.5%	152	0.5%	182	0.6%	28,556	98.4%	29,030
Labrador	12,313	4.3%	9,265	3.2%	6,791	2.4%	4,538	1.6%	252,517	88.5%	285,424
Other Canada	-	0.0%	-	0.0%	-	0.0%	190	27.6%	497	72.4%	687
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	160	100.0%	160
All Locations	12,313	3.9%	9,405	3.0%	6,943	2.2%	4,910	1.6%	281,730	89.4%	315,301

Table 14 - Person Hours of Employment by Location of Work and Aboriginal Affiliation (Project to Date)

	Labrador Innu		NunatuKavut		Nunatsiavut		Other Aboriginal		Non-Abo		
Work Location	At Location	%	At Location	%	At Location	%	At Location	%	At Location		Total
Island	2,961	0.0%	67,561	0.9%	24,949	0.3%	77,701	1.0%	7,613,589	97.8%	7,786,762
Labrador	1,421,531	3.9%	1,272,159	3.5%	1,031,333	2.8%	700,772	1.9%	31,779,400	87.8%	36,205,194
Other Canada	-	0.0%	-	0.0%	-	0.0%	1,593	0.4%	378,843	99.6%	380,436
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	79,687	100.0%	79,687
All Locations	1,424,492	3.2%	1,339,720	3.0%	1,056,282	2.4%	780,065	1.8%	39,851,519	89.7%	44,452,079

Table 15 - Number of Persons Employed by Location of Work and Aboriginal Affiliation (April 2019)

	Labrador	Innu	nu NunatuKavut		Nunatsi	avut	Other Abo	riginal	Non-Aboriginal		
Work	At		At		At		At		At		
Location	Location	%	Location	%	Location	%	Location	%	Location	%	Total
Island	-	0.0%	1	0.5%	1	0.5%	1	0.5%	209	98.6%	212
Labrador	88	5.0%	60	3.4%	47	2.7%	27	1.5%	1,536	87.4%	1,758
Other Canada	-	0.0%	-	0.0%	-	0.0%	1	7.7%	12	92.3%	13
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	1	100.0%	1
All Locations	88	4.4%	61	3.1%	48	2.4%	29	1.5%	1,758	88.6%	1,984

8.5 Employment by Gender

Table 16 - Person Hours of Employment by Gender (April 2019 and Project to Date)

		Curren	t Period		to Date			
Gender	C&A	E&D	PM	Total	C&A	E&D	PM	Total
Female	26,483	687	7,756	34,925	3,733,012	234,370	1,109,949	5,077,332
Male	245,367	3,572	31,437	280,376	33,980,758	1,374,854	4,019,135	39,374,746
Total	271,849	4,259	39,193	315,301	37,713,769	1,609,224	5,129,084	44,452,078

Table 17 - Persons Employed by Gender (April 2019)

	C&	Α	E&	ıD.	PI	M	Total	
Gender	Persons	%	Persons	%	Persons	%	Persons	%
Residents								
Female	176	10.8%	8	33.3%	48	25.4%	232	12.6%
Male	1,447	89.2%	16	66.7%	141	74.6%	1,604	87.4%
Total	1,623	100%	24	100%	189	100%	1,836	100%
Non Residents								
Female	8	11.6%	3	12.0%	5	9.3%	16	10.8%
Male	61	88.4%	22	88.0%	49	90.7%	132	89.2%
Total	69	100%	25	100%	54	100%	148	100%
Summary								
Female	184	10.9%	11	22.4%	53	21.8%	248	12.5%
Male	1,508	89.1%	38	77.6%	190	78.2%	1,736	87.5%
Total	1,692	100%	49	100%	243	100%	1,984	100%

9.0 Expenditures and Procurement

Expenditures are captured through direct entry of expenditure breakdowns by contractors which enter directly into the benefits system. For all other contractors, a listing of payments approved during the month from the project's financial accounting system is used. In all cases, expenditure totals are those that are approved for payment during the month.

9.1 Expenditures by Location of Company and Industry Category

Table 18 - Total Value of Expenditures by Location of Company and Industry Category (\$CDN; April 2019)

Industry	Labrador	Newfoundland	Other Canada	Non- Canadian	Totals
Accommodation and Food Services	27,309	3,629,983	ı	-	3,657,292
Administrative and Support, Waste Management and Remediation Services	6,194	2,563	1	-	8,757
Agriculture, Forestry, Fishing and Hunting	-	-	-	-	-
Arts, Entertainment and Recreation	-	-	-	-	-
Construction	115,443	16,930,563	387,318	-	17,433,323
Educational Services	1	-	3,169	-	3,169
Finance and Insurance	-	-	-	76,518	76,518
Health Care and Social Assistance	1	1	1,205	-	1,205
Information and Cultural Industries	ı		6,496	71,611	78,107
Management of Companies and Enterprises	ı	ı	ı	-	-
Manufacturing	ı	362,105	21,333,207	-	21,695,312
Mining, Quarrying, and Oil and Gas Extraction	206,206	ı	ı	-	206,206
Other Services, Including Maintenance and Repair	29,701	1,719,405	3,428,248	-	5,177,354
Professional, Scientific and Technical Services	35,849	4,452,523	4,866,547	215,955	9,570,874
Public Administration	3,920	50,230	ı	-	54,150
Real Estate, Rental and Leasing	1,875	9,738	143,196	-	154,810
Retail Trade	3,444	63,129	2,708	-	69,280
Transportation and Warehousing	530,236	192,313	22,664	-	745,213
Utilities	-	11,423,838	1,408,390	-	12,832,228
Wholesale Trade	469,305	219,934	12,496	-	701,735
Grand Total	1,429,481	39,056,324	31,615,645	364,084	72,465,534

Table 19 - Total Value of Expenditures by Location of Company and Industry Category (\$CDN; Project to Date)

Industry	Labrador	Newfoundland	Other Canada	Non- Canadian	Totals
Accommodation and Food Services	3,093,316	250,867,753	18,506,754	139,278	272,607,101
Administrative and Support, Waste Management and Remediation Services	781,301	11,258,927	284,858	7,333	12,332,419
Agriculture, Forestry, Fishing and Hunting	15,240	117,674,074	5,635,780	-	123,325,094
Arts, Entertainment and Recreation	304,621	133,498	44,500	22,611	505,230
Construction	656,221,649	998,038,753	3,505,174,220	50,515,443	5,209,950,065
Educational Services	142,854	564,774	4,946,617	15,580	5,669,824
Finance and Insurance	360,831	49,697,598	36,388,735	5,535,547	91,982,711
Health Care and Social Assistance	4,500	4,765,315	4,883,359	ı	9,653,173
Information and Cultural Industries	44,921	1,490,738	3,887,202	3,356,851	8,779,712
Management of Companies and Enterprises	1	1	1	1	•
Manufacturing	8,420,854	35,873,509	811,750,698	263,894,839	1,119,939,900
Mining, Quarrying, and Oil and Gas Extraction	4,708,015	1,495,159	24,831,141	1,200	31,035,515
Other Services, Including Maintenance and Repair	1,120,536	116,559,010	434,867,058	95,409,979	647,956,583
Professional, Scientific and Technical Services	7,552,557	367,966,136	544,642,223	21,792,655	941,953,570
Public Administration	24,359,116	3,934,625	1,550,637	3,170	29,847,549
Real Estate, Rental and Leasing	876,876	993,986	3,210,947	22,500	5,104,310
Retail Trade	1,410,661	15,251,659	819,149	14,619	17,496,088
Transportation and Warehousing	32,842,258	40,238,267	52,868,349	1,365,823	127,314,697
Utilities	751,874	187,301,046	49,701,309	15,531	237,769,759
Wholesale Trade	7,305,731	4,496,480	3,414,519	16,405,931	31,622,661
Totals	750,317,711	2,208,601,307	5,507,408,053	458,518,890	8,924,845,960

9.2 Procurement

Tables 20 - 22 provide details on procurement activities for all components of the Muskrat Falls Project. Appendix B contains a list of all contracts awarded to date since Project Sanction.

Table 20 - Contracts Awarded During April 2019

Package #	Package Title	Award Date	Successful Bidder(s)
	No contracts awarded during	g April 2019	

Table 21 - Request for Proposals Issued

Package #	Package Title		RFP Issue Status	Qualified Bidders
		No requests for prop	oosals were issued dur	ing April 2019

Table 22 - Upcoming Request for Proposals (RFP)

Package #	Package Title	Forecasted Bidder Selection	Forecasted RFP Issue							
		Start	Date							
There are currently no upcoming requests for proposals.										

Appendix A – Employment by 4-Digit NOC Code

Table 23 - Person Hours of Employment by 4-Digit NOC Code (April 2019)

		Current	Month			Project t	o Date	
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
0016 - Senior Managers - Goods Production, Utilities, Transportation	210		004	1 202	122.270	0.000	70.404	220.000
and Construction	219	-	984	1,203	133,378	8,008	79,481	220,866
0111 - Financial Managers	520	-	-	520	10,653	-	29,509	40,162
0112 - Human Resources Managers	1,568	48	180	1,796	222,639	21,527	55,235	299,401
0113 - Purchasing Managers	315	-	112	427	18,741	9,932	19,820	48,493
0114 - Other Administrative Services Managers	120	-	184	304	146,925	3,023	40,533	190,481
0124 - Advertising, marketing and public relations managers	-	-	-	-	6,616	-	3,289	9,905
0125 - Other Business Services Managers	-	-	232	232	22,626	137	58,438	81,201
0211 - Engineering Managers	138	356	1,017	1,511	80,606	74,819	165,300	320,724
0213 - Computer and Information Systems Managers	-	72	152	224	11,259	11,857	27,894	51,010
0711 - Construction Managers	1,512	-	3,429	4,941	670,480	12,249	257,703	940,432
1111 - Financial Auditors and Accountants	200	-	120	320	38,046	1,658	26,893	66,596
1114 - Other Financial Officers	676	-	1,504	2,180	16,503	3,073	110,360	129,936
1121 - Human Resources professionals	668	-	453	1,121	121,818	13,547	134,024	269,388
1122 - Professional Occupations in Business management consulting	-	-	-	-	-	-	-	-
1123 - Professional occupations in advertising, marketing and public			200	200	24 020	21	F2 000	04.000
relations	-	-	288	288	31,030	31	53,008	84,068
1221 - Administrative Officers	210	441	522	1,173	52,145	80,094	58,916	191,155
1223 - Human resources and Recruitment Officers	-	-	-	-	3,058	3,741	25,097	31,895
1225 - Purchasing Agents and Officers	1,441	-	2,777	4,218	177,281	65,509	371,752	614,542
1241 - Administrative Assistants	1,956	120	1,293	3,369	370,997	40,141	178,344	589,482
1311 - Accounting technicians and bookkeepers	200	48	298	546	105,892	15,520	137,561	258,973
1411 - General Office support workers	1,948	-	-	1,948	325,144	72	1,572	326,788
1431 - Accounting and Related Clerks	-	-	-	-	1,325	-	3,481	4,805
2113 - Geologists, Geochemists and Geophysicists	-	-	-	-	7,849	12,446	15,145	35,439
2131 - Civil Engineers	2,508	320	1,802	4,630	542,225	225,516	342,353	1,110,094
2132 - Mechanical Engineers	1,741	215	3,218	5,173	107,786	65,692	216,972	390,450
2133 - Electrical and Electronics Engineers	503	889	2,487	3,879	106,649	214,393	273,387	594,428
2141 - Industrial and Manufacturing Engineers	2,983	-	3,324	6,307	500,855	19,202	317,080	837,136
2144 - Geological Engineers	-	34	-	34	3,647	29,981	7,836	41,463
2147 - Computer Engineers (Except Software Engineers and Designers)	-	-	-	-	4,449	11,503	4,063	20,014
2148 - Other Professional Engineers, n.e.c.	718	331	3,093	4,142	280,352	109,644	417,890	807,886
2151 – Architects	-	-	-	-	320	5,156	-	5,476
2153 - Urban and Land Use Planners	180	-	160	340	14,402	10,793	68,837	94,031
2154 - Land Surveyors	2,997	-	360	3,357	430,764	173	74,821	505,757
2171 - Information Systems Analysts and Consultants	-	120	1,158	1,278	26,152	15,457	95,133	136,742
2221 - Biological Technologists and Technicians		-	-	-	-	-	-	-

		Curren	t Month			Project t	o Date	
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
2231 - Civil Engineering Technologists and Technicians	1,913	161	462	2,536	371,718	89,345	77,852	538,914
2232 - Mechanical Engineering Technologists and Technicians	506	-	638	1,144	209,421	16,800	27,345	253,566
2234 - Construction Estimators	-	-	195	195	34,034	25,558	28,633	88,224
2241 - Electrical and Electronics Engineering Technologists and	200	404	4.500	2 502	42.024	24 774	477.405	255 426
Technicians	880	104	1,599	2,583	42,931	34,771	177,425	255,126
2243 - Industrial Instrument Technicians and Mechanics	333	-	-	333	20,958	-	7,994	28,952
2251 - Architectural Technologists and Technicians	155	1	-	156	5,528	5,296	300	11,123
2253 - Drafting Technologists and Technicians	780	120	-	900	177,096	77,405	14,655	269,156
2263 - Inspectors in Public and Environmental Health and Occupational	3,990	380	2 555	6.025	FF2 471	05 126	191,147	920 754
Health and Safety	3,990	380	2,555	6,925	553,471	95,136	191,147	839,754
2264 - Construction Inspectors	400		1,322	1,722	86,168	39,919	216,594	342,681
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	-	-	64	80	1,283	1,426
3234 - Paramedical Occupations	2,272	-	160	2,432	300,507	-	4,348	304,855
4112 - Lawyers and Quebec Notaries	-	-	-	-	686	-	5,151	5,837
4161 - Natural and Applied Science Policy Researchers, Consultants and	400	351	849	1,600	197,574	105,846	158,626	462,045
Program Officers	400	331	049	1,000	157,574	103,840	138,020	402,043
4162 - Economists and Economic Policy Researchers and Analysts	-	-	288	288	1,146	-	28,935	30,081
4169 - Other Professional Occupations in Social Science, n.e.c.	203	-	-	203	28,842	-	41	28,882
4312 – Firefighters	8,469	-	-	8,469	56,380	-	3,267	59,646
6313 - Accommodation, travel, tourism and related services supervisors	828	-	-	828	98,323	-	4,470	102,793
6321 – Chefs	-	-	-	-	1,134	-	-	1,134
6322 – Cooks	1,282	-	-	1,282	188,793	-	3,002	191,795
6541 - Security Guards and Related security service Occupations	2,242	150	-	2,392	592,017	12,703	6,593	611,312
6711 - Food Counter Attendants, Kitchen Helpers and Related support	14,358	_	_	14,358	1,612,471	_	4,142	1,616,613
Occupations	14,338	_	_	14,338	1,012,471	-	4,142	1,010,013
7201 - Contractors and supervisors, machining, metal forming, shaping	3,707	_	_	3,707	310,079	134	8,134	318,346
and erecting trades and related occupations	3,707			3,707	310,073	154	0,154	310,340
7202 - Contractors and Supervisors, Electrical Trades and	2,388	_	55	2,443	223,157	57	12,143	235,356
Telecommunications Occupations	,		33	2,443	,	3,	ŕ	-
7203 - Contractors and Supervisors, Pipefitting Trades	1,108	-	-	1,108	81,935	-	705	82,640
7204 - Contractors and Supervisors, Carpentry Trades	3,531	-	-	3,531	439,148	-	22,152	461,300
7205 - Contractors and Supervisors, Other Construction Trades,	4,751	_	218	4,969	769,379	9,829	38,028	817,236
Installers, Repairers and Servicers	,		210	-		3,023		
7233 - Sheet Metal Workers	2,167	-	-	2,167	111,670	-	1,825	113,495
7234 – Boilermakers	494	-	-	494	43,990	-	-	43,990
7236 – Ironworkers	17,715	-	-	17,715	2,114,465	-	4,014	2,118,480
7237 - Welders and Related Machine Operators	2,903	-	-	2,903	274,682	192	2,401	277,275
7242 - Industrial Electricians	30,354	-	1,068	31,422	1,465,846	1,849	35,390	1,503,085
7244 - Electrical Power Line and Cable Workers	666	-	-	666	698,807	-	19,204	718,011
7251 – Plumbers	276	-	-	276	78,122	-	3,684	81,806
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	5,699	-	-	5,699	352,982	280	619	353,881

		Current	Month			Project t	o Date	
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
7271 – Carpenters	33,504	-	-	33,504	5,176,870	448	73,162	5,250,480
7281 – Bricklayers	16,636	-	-	16,636	481,374	-	8,957	490,331
7293 – Insulators	1,080	-	-	1,080	20,284	-	-	20,284
7294 - Painters and Decorators (except interior decorators)	3,723	-	-	3,723	60,725	-	137	60,862
7301 - Contractors and supervisors, mechanic trades	2,351	-	-	2,351	101,869	-	358	102,226
7302 - Contractors and supervisors, heavy equipment operator crews	1,881	-	-	1,881	356,099	-	5,678	361,777
7311 - Construction Millwrights and Industrial Mechanics	13,889	-	-	13,889	197,849	-	28,071	225,920
7312 - Heavy- Duty Equipment Mechanics	2,759	-	-	2,759	690,716	1,033	2,558	694,306
7371 - Crane Operators	3,672	-	-	3,672	669,973	-	11,724	681,697
7372 - Drillers and Blasters - Surface Mining, Quarrying and					210 057	1 160	182	212 100
Construction	-	-	-	-	210,857	1,160	182	212,198
7384 - Other Trades and Related Occupations, n.e.c.	-	-	-	-	29,471	-	139	29,610
7452 - Material Handlers	3,620	-	455	4,075	324,406	48	25,448	349,903
7511 - Transport Truck Drivers	9,006	-	-	9,006	1,910,845	689	27,504	1,939,038
7512 - Bus Drivers, Subway Operators and Other Transit Operators	4,047	-	-	4,047	298,474	-	1,539	300,014
7521 - Heavy Equipment Operators (Except Crane)	9,213	-	-	9,213	3,690,327	1,457	83,015	3,774,799
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	-	-	678	-	-	678
7611 - Construction Trades Helpers and Labourers	4,540	-	-	4,540	1,107,206	189	45,121	1,152,515
7612 - Other Trades Helpers and Labourers	23,502	-	-	23,502	5,515,327	3,807	65,860	5,584,993
8211 - Supervisors, Logging and Forestry	-	-	-	-	58,359	-	700	59,059
8241 - Logging Machinery Operators	-	-	-	-	483,992	-	6,996	490,988
8616 - Logging and Forestry Labourers	56	-	-	56	80,993	60	6,723	87,776
9241 - Power Engineers and power system operators	282	-	185	467	37,640	-	26,953	64,592
All Occupation Codes	271,849	4,259	39,193	315,301	37,640,464	1,608,974	5,202,640	44,452,078

Table 24 - Residents Hired by 4-Digit NOC Code (April 2019)

	C&A				E&D			PM		Total		
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
4-Digit NOC Code	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
0016 - Senior Managers - Goods Production, Utilities,	2	3	67%	_	_	0%	1	4	25%	3	7	43%
Transportation and Construction							_	•				
0111 - Financial Managers	1	3	33%	-	-	0%	-	-	0%	1	3	33%
0112 - Human Resources Managers	10	10	100%	1	1	100%	1	1	100%	12	12	100%
0113 - Purchasing Managers	1	2	50%	-	-	0%	1	1	100%	2	3	67%
0114 - Other Administrative Services Managers	1	1	100%	-	-	0%	1	1	100%	2	2	100%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	1	2	50%	1	2	50%
0211 - Engineering Managers	3	3	100%	-	4	0%	5	6	83%	8	13	62%
0213 - Computer and Information Systems Managers	-	-	0%	1	1	100%	1	1	100%	2	2	100%
0711 - Construction Managers	9	9	100%	-	-	0%	14	19	74%	23	28	82%
1111 - Financial Auditors and Accountants	-	1	0%	-	-	0%	1	1	100%	1	2	50%
1114 - Other Financial Officers	3	4	75%	-	-	0%	11	11	100%	14	15	93%
1121 - Human Resources professionals	4	4	100%	-	-	0%	3	3	100%	7	7	100%
1122 - Professional Occupations in Business management	_		0%	_		0%	_	_	0%	_	_	0%
consulting	_		076	_		070	_		076	_	-	076
1123 - Professional occupations in advertising, marketing	-	_	0%	_	_	0%	2	2	100%	2	2	100%
and public relations												
1221 - Administrative Officers	1	2	50%	4	4	100%	3	3	100%	8	9	89%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1225 - Purchasing Agents and Officers	6	9	67%	-	-	0%	12	18	67%	18	27	67%
1241 - Administrative Assistants	9	12	75%	1	1	100%	8	9	89%	18	22	82%
1311 - Accounting technicians and bookkeepers	1	1	100%	1	1	100%	2	2	100%	4	4	100%
1411 - General Office support workers	12	12	100%	-	-	0%	-	-	0%	12	12	100%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	16	17	94%	1	4	25%	10	11	91%	27	32	84%
2132 - Mechanical Engineers	5	10	50%	1	3	33%	14	20	70%	20	33	61%
2133 - Electrical and Electronics Engineers	1	3	33%	1	9	11%	7	15	47%	9	27	33%
2141 - Industrial and Manufacturing Engineers	12	18	67%	-	-	0%	15	20	75%	27	38	71%
2144 - Geological Engineers	-	-	0%	-	1	0%	-	-	0%	-	1	0%
2147 - Computer Engineers (Except Software Engineers and Designers)	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2148 - Other Professional Engineers, n.e.c.	2	4	50%	1	5	20%	15	21	71%	18	30	60%

		C&A			E&D			PM			Total	
		Total	Res as %									
4-Digit NOC Code	Res	Persons	of Total									
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	1	1	100%	1	2	50%
2154 - Land Surveyors	17	17	100%	-	-	0%	3	3	100%	20	20	100%
2171 - Information Systems Analysts and Consultants	-	-	0%	1	1	100%	7	8	88%	8	9	89%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	11	12	92%	1	2	50%	2	3	67%	14	17	82%
2232 - Mechanical Engineering Technologists and Technicians	3	3	100%	-	-	0%	2	3	67%	5	6	83%
2234 - Construction Estimators	_	_	0%	_	_	0%	1	1	100%	1	1	100%
2241 - Electrical and Electronics Engineering Technologists								_			_	
and Technicians	4	5	80%	1	1	100%	6	9	67%	11	15	73%
2243 - Industrial Instrument Technicians and Mechanics	1	2	50%	-	-	0%	-	-	0%	1	2	50%
2251 - Architectural Technologists and Technicians	1	1	100%	1	1	100%	-	-	0%	2	2	100%
2253 - Drafting Technologists and Technicians	2	4	50%	1	1	100%	-	-	0%	3	5	60%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	18	22	82%	5	5	100%	13	15	87%	36	42	86%
2264 - Construction Inspectors	2	2	100%	_	_	0%	5	7	71%	7	9	78%
2271 - Air Pilots, Flight Engineers and Flying Instructors	_	_	0%		_	0%	_	-	0%	_	-	0%
3234 - Paramedical Occupations	14	15	93%	_		0%	1	1	100%	15	16	94%
4112 - Lawyers and Quebec Notaries	-	-	0%		_	0%	_	_	0%	-	-	0%
4161 - Natural and Applied Science Policy Researchers,												
Consultants and Program Officers	-	2	0%	1	3	33%	5	5	100%	6	10	60%
4162 - Economists and Economic Policy Researchers and			00/			00/	_	2	1000/	_	•	4000/
Analysts	-	-	0%	-	-	0%	2	2	100%	2	2	100%
4169 - Other Professional Occupations in Social Science,	2	2	100%	_	_	0%	_	_	0%	2	2	100%
n.e.c.			100/6	_		070			070			100%
4312 - Firefighters	12	12	100%	-	-	0%	-	-	0%	12	12	100%
6313 - Accommodation, travel, tourism and related	1	5	20%	-	-	0%	_	-	0%	1	5	20%
services supervisors												
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	9	9	100%	-	-	0%	-	-	0%	9	9	100%
6541 - Security Guards and Related security service Occupations	31	32	97%	1	1	100%	-	-	0%	32	33	97%
6711 - Food Counter Attendants, Kitchen Helpers and												
Related support Occupations	100	100	100%	-	-	0%	-	-	0%	100	100	100%
7201 - Contractors and supervisors, machining, metal												
forming, shaping and erecting trades and related	21	22	95%	-	-	0%	-	-	0%	21	22	95%
occupations												

		C&A			E&D			PM			Total	
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
4-Digit NOC Code	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
7202 - Contractors and Supervisors, Electrical Trades and	14	15	93%	_	_	0%	1	1	100%	15	16	94%
Telecommunications Occupations	14	13	33/0	_	-	0/6	1	1	100%	13	10	34/0
7203 - Contractors and Supervisors, Pipefitting Trades	6	6	100%	-	-	0%	-	-	0%	6	6	100%
7204 - Contractors and Supervisors, Carpentry Trades	18	19	95%	-	-	0%	-	-	0%	18	19	95%
7205 - Contractors and Supervisors, Other Construction	21	25	84%	_	_	0%	1	1	100%	22	26	85%
Trades, Installers, Repairers and Servicers												
7233 - Sheet Metal Workers	13	13	100%	-	-	0%	-	-	0%	13	13	100%
7234 - Boilermakers	3	3	100%	-	-	0%	-	-	0%	3	3	100%
7236 - Ironworkers	123	124	99%	-	-	0%	-	-	0%	123	124	99%
7237 - Welders and Related Machine Operators	17	18	94%	-	-	0%	-	-	0%	17	18	94%
7242 - Industrial Electricians	177	180	98%	-	-	0%	7	8	88%	184	188	98%
7244 - Electrical Power Line and Cable Workers	10	10	100%	-	-	0%	-	-	0%	10	10	100%
7251 - Plumbers	2	2	100%	-	-	0%	-	-	0%	2	2	100%
7252 - Steamfitters, Pipefitters and Sprinkler System	36	37	97%	_	_	0%	_	_	0%	36	37	97%
Installers	30		3770			0 /0			0,0	30		3770
7271 - Carpenters	217	220	99%	-	-	0%	-	-	0%	217	220	99%
7281 - Bricklayers	103	104	99%	-	-	0%	-	-	0%	103	104	99%
7293 - Insulators	6	6	100%	-	-	0%	-	-	0%	6	6	100%
7294 - Painters and Decorators (except interior	23	23	100%	_	_	0%	_	_	0%	23	23	100%
decorators)	23											
7301 - Contractors and supervisors, mechanic trades	12	12	100%	-	-	0%	-	-	0%	12	12	100%
7302 - Contractors and supervisors, heavy equipment	12	12	100%	_	_	0%	_	_	0%	12	12	100%
operator crews												
7311 - Construction Millwrights and Industrial Mechanics	72	75	96%	-	-	0%	-	-	0%	72	75	96%
7312 - Heavy- Duty Equipment Mechanics	15	16	94%	-	-	0%	-	-	0%	15	16	94%
7371 - Crane Operators	27	27	100%	-	-	0%	-	-	0%	27	27	100%
7372 - Drillers and Blasters - Surface Mining, Quarrying	_	_	0%	-	-	0%	-	-	0%	-	-	0%
and Construction			20/			00/			20/			20/
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	19	19	100%	-	-	0%	3	3	100%	22	22	100%
7511 - Transport Truck Drivers	54	55	98%	-	-	0%	-	-	0%	54	55	98%
7512 - Bus Drivers, Subway Operators and Other Transit	25	25	100%	-	-	0%	-	-	0%	25	25	100%
Operators (5)	60	60	4000/			00/			00/	60	60	4000/
7521 - Heavy Equipment Operators (Except Crane)	69	69	100%	-	-	0%		-	0%	69	69	100%
7533 - Boat and Cable Ferry Operators and Related	-	-	0%	-	-	0%	-	-	0%	-	-	0%
Occupations	26	26	1000/			00/			00/	26	26	1000/
7611 - Construction Trades Helpers and Labourers	26	26 153	100%	-	-	0% 0%	-	-	0%	26	26	100%
7612 - Other Trades Helpers and Labourers	152	152	100%	-	-	0%	-	=	0%	152	152	100%

		C&A			E&D			PM			Total		
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %	
4-Digit NOC Code	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	1	-	0%	-	-	0%	
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%	
8616 - Logging and Forestry Labourers	1	1	100%	-	-	0%	-	-	0%	1	1	100%	
9241 - Power Engineers and power system operators	2	2	100%	-	-	0%	1	1	100%	3	3	100%	
Totals	1,623	1,692	96%	24	49	49%	189	243	78%	1,836	1,984	93%	

Table 25 - Female Workers Hired by 4-Digit NOC Code (April 2019)

		C&A			E&D			PM		Total		
			Females			Females			Females			Females
		Total	as % of		Total	as % of	Female	Total	as % of		Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
0016 - Senior Managers - Goods Production, Utilities,	1	3	33%	_	-	0%	-	4	0%	1	7	14%
Transportation and Construction	1	2	220/			00/			00/	1	,	220/
0111 - Financial Managers	1 -	3	33%	_	-	0%	_	-	0%	_	3	33%
0112 - Human Resources Managers	1	10	10%	1	1	100%	-	1	0%	2	12	17%
0113 - Purchasing Managers	-	2	0%	-	-	0%	-	1	0%	-	3	0%
0114 - Other Administrative Services Managers	1	1	100%	-	-	0%	-	1	0%	1	2	50%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	1	2	50%	1	2	50%
0211 - Engineering Managers	1	3	33%	1	4	25%	-	6	0%	2	13	15%
0213 - Computer and Information Systems Managers	-	-	0%	-	1	0%	-	1	0%	-	2	0%
0711 - Construction Managers	-	9	0%	-	-	0%	-	19	0%	-	28	0%
1111 - Financial Auditors and Accountants	-	1	0%	-	-	0%	-	1	0%	-	2	0%
1114 - Other Financial Officers	3	4	75%	_	-	0%	7	11	64%	10	15	67%
1121 - Human Resources professionals	2	4	50%	-	-	0%	3	3	100%	5	7	71%
1122 - Professional Occupations in Business management			00/			00/			00/			00/
consulting	-	-	0%	-	-	0%	_	-	0%	-	-	0%
1123 - Professional occupations in advertising, marketing		_	0%		_	0%	2	2	100%	2	2	100%
and public relations			070			076			100/6			100/6
1221 - Administrative Officers	2	2	100%	4	4	100%	2	3	67%	8	9	89%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1225 - Purchasing Agents and Officers	5	9	56%	-	-	0%	6	18	33%	11	27	41%
1241 - Administrative Assistants	9	12	75%	1	1	100%	7	9	78%	17	22	77%
1311 - Accounting technicians and bookkeepers	-	1	0%	-	1	0%	2	2	100%	2	4	50%
1411 - General Office support workers	11	12	92%	-	-	0%	-	-	0%	11	12	92%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	-	0%	_	-	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	2	17	12%	-	4	0%	4	11	36%	6	32	19%
2132 - Mechanical Engineers	3	10	30%	1	3	33%	4	20	20%	8	33	24%
2133 - Electrical and Electronics Engineers	-	3	0%	-	9	0%	2	15	13%	2	27	7%
2141 - Industrial and Manufacturing Engineers	1	18	6%	-	-	0%	2	20	10%	3	38	8%
2144 - Geological Engineers	_	-	0%	1	1	100%	-	_	0%	1	1	100%
2147 - Computer Engineers (Except Software Engineers			201			201			201			201
and Designers)	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2148 - Other Professional Engineers, n.e.c.	1	4	25%	1	5	20%	1	21	5%	3	30	10%

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
A Pitta Noc Calle	e a constant	Total	as % of	e a constant	Total	as % of	Female	Total	as % of	Familia.	Total	as % of
4-Digit NOC Code	Females	Persons	Total 0%	Females	Persons	Total 0%	S	Persons	Total	Females	Persons	Total
2151 - Architects	-	-		-	-		_	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	1	0%	-	2	0%
2154 - Land Surveyors	-	17	0%	-	-	0%	-	3	0%	-	20	0%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	1	0%	3	8	38%	3	9	33%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	4	12	33%	-	2	0%	-	3	0%	4	17	24%
2232 - Mechanical Engineering Technologists and	_	3	0%	_	_	0%	_	3	0%	_	6	0%
Technicians											_	
2234 - Construction Estimators	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2241 - Electrical and Electronics Engineering Technologists and Technicians	-	5	0%	-	1	0%	-	9	0%	-	15	0%
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	1	0%	1	1	100%	-	-	0%	1	2	50%
2253 - Drafting Technologists and Technicians	2	4	50%	-	1	0%	-	-	0%	2	5	40%
2263 - Inspectors in Public and Environmental Health and		22	270/		-	00/		45	200/	_	42	240/
Occupational Health and Safety	6	22	27%	-	5	0%	3	15	20%	9	42	21%
2264 - Construction Inspectors	-	2	0%	-	-	0%	-	7	0%	-	9	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	-	-	0%	-	-	0%
3234 - Paramedical Occupations	5	15	33%	-	-	0%	-	1	0%	5	16	31%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	-	-	0%	-	-	0%
4161 - Natural and Applied Science Policy Researchers,		2	20/		2	00/		_	200/	_	4.0	400/
Consultants and Program Officers	-	2	0%	-	3	0%	1	5	20%	1	10	10%
4162 - Economists and Economic Policy Researchers and		_	00/			0%	1	2	50%	1	2	F00/
Analysts	-	-	0%	-	-	0%	1	2	50%	1	2	50%
4169 - Other Professional Occupations in Social Science,	1	2	50%			0%			0%	1	2	50%
n.e.c.	1	2	30%	_		0/6	_		U/0	_		30%
4312 - Firefighters	1	12	8%	-	-	0%	-	-	0%	1	12	8%
6313 - Accommodation, travel, tourism and related	1	5	20%			0%			0%	1	5	20%
services supervisors	1	3	20%	_	-	0%	_	-	U%	_	3	20%
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	2	9	22%	-	-	0%	-	-	0%	2	9	22%
6541 - Security Guards and Related security service	2	32	6%		1	0%			0%	2	33	6%
Occupations		32	U/0	_	1	U%	_	-	U/0		33	0/0
6711 - Food Counter Attendants, Kitchen Helpers and	51	100	51%	_	_	0%	_	_	0%	51	100	51%
Related support Occupations	J1	100	52/0									32/0

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
		Total	as % of		Total	as % of	Female	Total	as % of		Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
7201 - Contractors and supervisors, machining, metal												
forming, shaping and erecting trades and related	-	22	0%	-	-	0%	-	-	0%	-	22	0%
occupations												
7202 - Contractors and Supervisors, Electrical Trades and	_	15	0%	-	_	0%	_	1	0%	_	16	0%
Telecommunications Occupations											_	
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	19	0%	-	-	0%	-	-	0%	-	19	0%
7205 - Contractors and Supervisors, Other Construction	_	25	0%	_	_	0%	_	1	0%	_	26	0%
Trades, Installers, Repairers and Servicers								_			_	
7233 - Sheet Metal Workers	1	13	8%	-	-	0%	-	-	0%	1	13	8%
7234 - Boilermakers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7236 - Ironworkers	5	124	4%	-	-	0%	-	-	0%	5	124	4%
7237 - Welders and Related Machine Operators	-	18	0%	-	-	0%	-	-	0%	-	18	0%
7242 - Industrial Electricians	3	180	2%	-	-	0%	-	8	0%	3	188	2%
7244 - Electrical Power Line and Cable Workers	1	10	10%	-	-	0%	-	-	0%	1	10	10%
7251 - Plumbers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7252 - Steamfitters, Pipefitters and Sprinkler System	_	37	0%			0%			0%	_	37	0%
Installers	_	37	U/0	_	-	070	_	-	U/0	_	37	0/0
7271 - Carpenters	7	220	3%	-	-	0%	-	-	0%	7	220	3%
7281 - Bricklayers	8	104	8%	-	-	0%	-	-	0%	8	104	8%
7293 - Insulators	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7294 - Painters and Decorators (except interior	1	23	4%			0%			0%	1	23	4%
decorators)	1 1	23	470	-	-	U%	_	-	U%	_	23	470
7301 - Contractors and supervisors, mechanic trades	-	12	0%	-	-	0%	-	-	0%	-	12	0%
7302 - Contractors and supervisors, heavy equipment	_	12	0%	_	_	0%	_	_	0%	_	12	0%
operator crews											12	070
7311 - Construction Millwrights and Industrial Mechanics	6	75	8%	-	-	0%	-	-	0%	6	75	8%
7312 - Heavy- Duty Equipment Mechanics	-	16	0%	-	-	0%	-	-	0%	-	16	0%
7371 - Crane Operators	2	27	7%	-	-	0%	-	-	0%	2	27	7%
7372 - Drillers and Blasters - Surface Mining, Quarrying	_	_	0%	_	_	0%	_	_	0%	_	_	0%
and Construction			070	_		070			070	_	_	070
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	1	19	5%	-	-	0%	2	3	67%	3	22	14%
7511 - Transport Truck Drivers	1	55	2%	-	-	0%	-	-	0%	1	55	2%
7512 - Bus Drivers, Subway Operators and Other Transit		25	0%		_	0%	_	_	0%		25	0%
Operators]	23	U/0	_	-	U/0	-	-	U/0] -	23	U/0
7521 - Heavy Equipment Operators (Except Crane)	3	69	4%	-	-	0%	-	-	0%	3	69	4%

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
		Total	as % of		Total	as % of	Female	Total	as % of		Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
7533 - Boat and Cable Ferry Operators and Related	_	_	0%	_	_	0%	_	_	0%	_		0%
Occupations		_	070	_	_	0/0	_	_	0/0	_	_	070
7611 - Construction Trades Helpers and Labourers	1	26	4%	-	-	0%	-	-	0%	1	26	4%
7612 - Other Trades Helpers and Labourers	25	152	16%	-	-	0%	-	-	0%	25	152	16%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
9241 - Power Engineers and power system operators	-	2	0%	-	-	0%	-	1	0%	-	3	0%
Totals	184	1,692	11%	11	49	22%	53	243	22%	248	1,984	13%

Table 26 - Aboriginal Workers by 4-Digit NOC Code (April 2019)

		C&A			E&D			PM			Total	
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
0016 - Senior Managers - Goods Production, Utilities,	_	3	0%	_	_	0%	-	4	0%	-	7	0%
Transportation and Construction								-			-	• • • •
0111 - Financial Managers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
0112 - Human Resources Managers	3	10	30%	-	1	0%	-	1	0%	3	12	25%
0113 - Purchasing Managers	-	2	0%	-	-	0%	-	1	0%	-	3	0%
0114 - Other Administrative Services Managers	-	1	0%	-	-	0%	-	1	0%	-	2	0%
0124 - Advertising, marketing and public relations	_	_	0%	_	_	0%	_	_	0%	_	_	0%
managers												
0125 - Other Business Services Managers	-	-	0%	-	-	0%	-	2	0%	-	2	0%
0211 - Engineering Managers	-	3	0%	-	4	0%	-	6	0%	-	13	0%
0213 - Computer and Information Systems Managers	-	-	0%	-	1	0%	-	1	0%	-	2	0%
0711 - Construction Managers	-	9	0%	-	-	0%	-	19	0%	-	28	0%
1111 - Financial Auditors and Accountants	-	1	0%	-	-	0%	-	1	0%	-	2	0%
1114 - Other Financial Officers	-	4	0%	-	-	0%	-	11	0%	-	15	0%
1121 - Human Resources professionals	-	4	0%	-	-	0%	-	3	0%	-	7	0%
1122 - Professional Occupations in Business management	_	_	0%	_	_	0%	_	_	0%	_	_	0%
consulting 1123 - Professional occupations in advertising, marketing and public relations	-	-	0%	-	-	0%	-	2	0%	1	2	0%
1221 - Administrative Officers	1	2	50%	-	4	0%	-	3	0%	1	9	11%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1225 - Purchasing Agents and Officers	1	9	11%	-	-	0%	-	18	0%	1	27	4%
1241 - Administrative Assistants	1	12	8%	-	1	0%	-	9	0%	1	22	5%
1311 - Accounting technicians and bookkeepers	-	1	0%	-	1	0%	-	2	0%	-	4	0%
1411 - General Office support workers	3	12	25%	-	-	0%	-	-	0%	3	12	25%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	1	17	6%	-	4	0%	-	11	0%	1	32	3%
2132 - Mechanical Engineers	2	10	20%	1	3	33%	-	20	0%	3	33	9%
2133 - Electrical and Electronics Engineers	_	3	0%	-	9	0%	-	15	0%	-	27	0%
2141 - Industrial and Manufacturing Engineers	_	18	0%	-	-	0%	1	20	5%	1	38	3%
2144 - Geological Engineers	-	-	0%	-	1	0%	-	-	0%	-	1	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
2147 - Computer Engineers (Except Software Engineers	-	_	0%	-	-	0%	-	-	0%		_	0%
and Designers)		_			_							
2148 - Other Professional Engineers, n.e.c.	-	4	0%	-	5	0%	-	21	0%	-	30	0%
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	1	0%	-	2	0%
2154 - Land Surveyors	3	17	18%	-	-	0%	-	3	0%	3	20	15%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	1	0%	-	8	0%	-	9	0%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians		12	0%	-	2	0%	1	3	33%	1	17	6%
2232 - Mechanical Engineering Technologists and Technicians	1	3	33%	-	-	0%	-	3	0%	1	6	17%
2234 - Construction Estimators	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2241 - Electrical and Electronics Engineering Technologists and Technicians	-	5	0%	-	1	0%	-	9	0%	-	15	0%
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	_	_	0%	-	_	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	1	0%	-	1	0%	-	-	0%	-	2	0%
2253 - Drafting Technologists and Technicians	-	4	0%	-	1	0%	-	_	0%	_	5	0%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	-	22	0%	-	5	0%	1	15	7%	1	42	2%
2264 - Construction Inspectors	-	2	0%	-	-	0%	-	7	0%	-	9	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	-	-	0%	-	-	0%
3234 - Paramedical Occupations	-	15	0%	-	-	0%	-	1	0%	-	16	0%
4112 - Lawyers and Quebec Notaries	-	_	0%	_	_	0%	-	_	0%	-	_	0%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	-	2	0%	-	3	0%	-	5	0%	-	10	0%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	-	2	0%	-	2	0%
4169 - Other Professional Occupations in Social Science, n.e.c.	1	2	50%	-	-	0%	-	-	0%	1	2	50%
4312 - Firefighters	-	12	0%	-	-	0%	-	-	0%	-	12	0%
6313 - Accommodation, travel, tourism and related	-	5	0%	-	-	0%	-	-	0%	-	5	0%
services supervisors			00/			00/			00/			00/
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	1	9	11%	-	-	0%	-	-	0%	1	9	11%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
6541 - Security Guards and Related security service	4	32	13%	-	1	0%	-	-	0%	4	33	12%
Occupations 6711 - Food Counter Attendants, Kitchen Helpers and Related support Occupations 7201 - Contractors and supervisors, machining, metal	32	100	32%	-	-	0%	-	-	0%	32	100	32%
forming, shaping and erecting trades and related occupations	1	22	5%	-	-	0%	-	-	0%	1	22	5%
7202 - Contractors and Supervisors, Electrical Trades and Telecommunications Occupations	1	15	7%	-	-	0%	-	1	0%	1	16	6%
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	1	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	1	19	5%	-	-	0%	-	-	0%	1	19	5%
7205 - Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers	1	25	4%	-	-	0%	-	1	0%	1	26	4%
7233 - Sheet Metal Workers	-	13	0%	-	-	0%	-	-	0%	-	13	0%
7234 - Boilermakers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7236 - Ironworkers	2	124	2%	-	-	0%	-	-	0%	2	124	2%
7237 - Welders and Related Machine Operators	1	18	6%	-	-	0%	-	-	0%	1	18	6%
7242 - Industrial Electricians	9	180	5%	-	-	0%	-	8	0%	9	188	5%
7244 - Electrical Power Line and Cable Workers	-	10	0%	-	-	0%	-	-	0%	-	10	0%
7251 - Plumbers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	6	37	16%	-	-	0%	-	-	0%	6	37	16%
7271 - Carpenters	20	220	9%	-	-	0%	-	-	0%	20	220	9%
7281 - Bricklayers	7	104	7%	-	-	0%	-	-	0%	7	104	7%
7293 - Insulators	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7294 - Painters and Decorators (except interior decorators)	1	23	4%	-	-	0%	-	-	0%	1	23	4%
7301 - Contractors and supervisors, mechanic trades	-	12	0%	-	-	0%	-	-	0%	-	12	0%
7302 - Contractors and supervisors, heavy equipment operator crews	-	12	0%	-	-	0%	-	-	0%	-	12	0%
7311 - Construction Millwrights and Industrial Mechanics	2	75	3%	-	-	0%	-	-	0%	2	75	3%
7312 - Heavy- Duty Equipment Mechanics	1	16	6%	-	-	0%	-	-	0%	1	16	6%
7371 - Crane Operators	2	27	7%	-	-	0%	-	-	0%	2	27	7%
7372 - Drillers and Blasters - Surface Mining, Quarrying and Construction	-	-	0%	-	-	0%	-	-	0%	-	-	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	1	19	5%	-	-	0%	-	3	0%	1	22	5%
7511 - Transport Truck Drivers	14	55	25%	-	-	0%	-	-	0%	14	55	25%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	4	25	16%	1	-	0%	1	-	0%	4	25	16%
7521 - Heavy Equipment Operators (Except Crane)	13	69	19%	-	-	0%	-	-	0%	13	69	19%
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	10	26	38%	-	-	0%	-	-	0%	10	26	38%
7612 - Other Trades Helpers and Labourers	71	152	47%	-	-	0%	-	-	0%	71	152	47%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	•	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
9241 - Power Engineers and power system operators	-	2	0%	-	-	0%	-	1	0%	1	3	0%
Totals	222	1,692	13%	1	49	2%	3	243	1%	226	1,984	11%

Table 27 - Labrador Residents by 4-Digit NOC Code (April 2019)

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
0016 - Senior Managers - Goods Production, Utilities,	_	3	0%	_	_	0%	_	4	0%	_	7	0%
Transportation and Construction			00/			201			201		_	201
0111 - Financial Managers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
0112 - Human Resources Managers	3	10	30%	-	1	0%	1	1	100%	4	12	33%
0113 - Purchasing Managers	-	2	0%	-	-	0%	-	1	0%	-	3	0%
0114 - Other Administrative Services Managers	-	1	0%	-	-	0%	-	1	0%	-	2	0%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	-	2	0%	-	2	0%
0211 - Engineering Managers	-	3	0%	-	4	0%	-	6	0%	-	13	0%
0213 - Computer and Information Systems Managers	-	-	0%	-	1	0%	-	1	0%	-	2	0%
0711 - Construction Managers	-	9	0%	-	-	0%	1	19	5%	1	28	4%
1111 - Financial Auditors and Accountants	-	1	0%	-	-	0%	-	1	0%	-	2	0%
1114 - Other Financial Officers	-	4	0%	-	-	0%	-	11	0%	-	15	0%
1121 - Human Resources professionals	1	4	25%	-	-	0%	-	3	0%	1	7	14%
1122 - Professional Occupations in Business management consulting	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1123 - Professional occupations in advertising, marketing and public relations	-	-	0%	-	-	0%	-	2	0%	-	2	0%
1221 - Administrative Officers	1	2	50%	-	4	0%	2	3	67%	3	9	33%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1225 - Purchasing Agents and Officers	1	9	11%	-	-	0%	-	18	0%	1	27	4%
1241 - Administrative Assistants	1	12	8%	-	1	0%	-	9	0%	1	22	5%
1311 - Accounting technicians and bookkeepers	-	1	0%	-	1	0%	-	2	0%	-	4	0%
1411 - General Office support workers	9	12	75%	-	-	0%	-	-	0%	9	12	75%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	-	17	0%	-	4	0%	-	11	0%	-	32	0%
2132 - Mechanical Engineers	-	10	0%	1	3	33%	-	20	0%	1	33	3%
2133 - Electrical and Electronics Engineers	-	3	0%	-	9	0%	-	15	0%	-	27	0%
2141 - Industrial and Manufacturing Engineers	1	18	6%	-	-	0%	1	20	5%	2	38	5%
2144 - Geological Engineers		<u>-</u>	0%		1	0%		-	0%		1	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
2147 - Computer Engineers (Except Software Engineers			0%			0%			0%			0%
and Designers)	-	-	U%	-	-	0%	-	-	U%	-	-	U%
2148 - Other Professional Engineers, n.e.c.	-	4	0%	-	5	0%	-	21	0%	-	30	0%
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	1	0%	-	2	0%
2154 - Land Surveyors	9	17	53%	-	-	0%	-	3	0%	9	20	45%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	1	0%	1	8	13%	1	9	11%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	1	12	8%	-	2	0%	-	3	0%	1	17	6%
2232 - Mechanical Engineering Technologists and Technicians	1	3	33%	-	-	0%	-	3	0%	1	6	17%
2234 - Construction Estimators	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2241 - Electrical and Electronics Engineering Technologists and Technicians	-	5	0%	-	1	0%	-	9	0%	-	15	0%
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	1	0%	-	1	0%	-	-	0%	-	2	0%
2253 - Drafting Technologists and Technicians	1	4	25%	-	1	0%	-	-	0%	1	5	20%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	1	22	5%	1	5	20%	1	15	7%	3	42	7%
2264 - Construction Inspectors	-	2	0%	-	-	0%	-	7	0%	-	9	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	-	-	0%	-	-	0%
3234 - Paramedical Occupations	7	15	47%	-	-	0%	-	1	0%	7	16	44%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	-	-	0%	-	-	0%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	-	2	0%	-	3	0%	-	5	0%	-	10	0%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	-	2	0%	-	2	0%
4169 - Other Professional Occupations in Social Science,	2	2	100%			0%			0%	2	2	100%
n.e.c.		2	100%	_	-	U70	_	-	U70		4	100%
4312 - Firefighters	-	12	0%	-	-	0%	-	-	0%	-	12	0%
6313 - Accommodation, travel, tourism and related	_	5	0%	_	_	0%	_	_	0%	_	5	0%
services supervisors		3									J	
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	2	9	22%	-	-	0%	-	-	0%	2	9	22%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
6541 - Security Guards and Related security service	16	32	50%	1	1	100%	_	_	0%	17	33	52%
Occupations 6711 - Food Counter Attendants, Kitchen Helpers and Related support Occupations	65	100	65%	-	-	0%	-	-	0%	65	100	65%
7201 - Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	1	22	5%	-	-	0%	-	-	0%	1	22	5%
7202 - Contractors and Supervisors, Electrical Trades and Telecommunications Occupations	-	15	0%	-	-	0%	-	1	0%	-	16	0%
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	19	0%	-	-	0%	-	-	0%	-	19	0%
7205 - Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers	2	25	8%	-	-	0%	-	1	0%	2	26	8%
7233 - Sheet Metal Workers	6	13	46%	-	-	0%	-	-	0%	6	13	46%
7234 - Boilermakers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7236 - Ironworkers	13	124	10%	-	-	0%	-	-	0%	13	124	10%
7237 - Welders and Related Machine Operators	2	18	11%	-	-	0%	-	-	0%	2	18	11%
7242 - Industrial Electricians	33	180	18%	-	-	0%	-	8	0%	33	188	18%
7244 - Electrical Power Line and Cable Workers	1	10	10%		-	0%		-	0%	1	10	10%
7251 - Plumbers	1	2	50%		-	0%		-	0%	1	2	50%
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	4	37	11%	-	-	0%	-	-	0%	4	37	11%
7271 - Carpenters	32	220	15%	-	-	0%	-	-	0%	32	220	15%
7281 - Bricklayers	7	104	7%	-	-	0%	-	-	0%	7	104	7%
7293 - Insulators	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7294 - Painters and Decorators (except interior decorators)	-	23	0%	-	-	0%	-	-	0%	-	23	0%
7301 - Contractors and supervisors, mechanic trades	2	12	17%	-	-	0%	-	-	0%	2	12	17%
7302 - Contractors and supervisors, heavy equipment operator crews	-	12	0%	-	-	0%	-	-	0%	-	12	0%
7311 - Construction Millwrights and Industrial Mechanics	7	75	9%	-	-	0%	-	-	0%	7	75	9%
7312 - Heavy- Duty Equipment Mechanics	4	16	25%	-	-	0%	-	-	0%	4	16	25%
7371 - Crane Operators	6	27	22%	-	-	0%	-	-	0%	6	27	22%
7372 - Drillers and Blasters - Surface Mining, Quarrying and Construction	-	-	0%	-	-	0%	-	-	0%	-	-	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	9	19	47%	-	-	0%	-	3	0%	9	22	41%
7511 - Transport Truck Drivers	28	55	51%	-	-	0%	-	-	0%	28	55	51%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	20	25	80%	-	-	0%	-	-	0%	20	25	80%
7521 - Heavy Equipment Operators (Except Crane)	27	69	39%	-	-	0%	-	-	0%	27	69	39%
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	18	26	69%	-	-	0%	-	-	0%	18	26	69%
7612 - Other Trades Helpers and Labourers	117	152	77%	-	-	0%	-	-	0%	117	152	77%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
9241 - Power Engineers and power system operators	-	2	0%	-	-	0%	-	1	0%	-	3	0%
Totals	462	1,692	27%	3	49	6%	7	243	3%	472	1,984	24%

Table 28 - Labrador Residents Working in Labrador by 4-Digit NOC Code (April 2019)

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
0016 - Senior Managers - Goods Production, Utilities,		2	0%			0%		1	0%		3	0%
Transportation and Construction	_	2	0%	_	-	U%	-	1	0%	-	3	U%
0111 - Financial Managers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
0112 - Human Resources Managers	2	9	22%	-	-	0%	1	1	100%	3	10	30%
0113 - Purchasing Managers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
0114 - Other Administrative Services Managers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	-	1	0%	-	1	0%
0211 - Engineering Managers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
0213 - Computer and Information Systems Managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0711 - Construction Managers	-	6	0%	-	-	0%	1	16	6%	1	22	5%
1111 - Financial Auditors and Accountants	-	1	0%	-	-	0%	-	-	0%	-	1	0%
1114 - Other Financial Officers	-	1	0%	-	-	0%	-	3	0%	-	4	0%
1121 - Human Resources professionals	1	3	33%	-	-	0%	-	-	0%	1	3	33%
1122 - Professional Occupations in Business management consulting	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1123 - Professional occupations in advertising, marketing and public relations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1221 - Administrative Officers	1	1	100%	-	-	0%	2	2	100%	3	3	100%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1225 - Purchasing Agents and Officers	1	6	17%	-	-	0%	-	9	0%	1	15	7%
1241 - Administrative Assistants	1	10	10%	-	-	0%	-	1	0%	1	11	9%
1311 - Accounting technicians and bookkeepers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
1411 - General Office support workers	9	12	75%	-	-	0%	-	-	0%	9	12	75%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	-	14	0%	-	-	0%	-	5	0%	-	19	0%
2132 - Mechanical Engineers	-	9	0%	-	-	0%	-	10	0%	-	19	0%
2133 - Electrical and Electronics Engineers	-	3	0%	-	-	0%	-	7	0%	-	10	0%
2141 - Industrial and Manufacturing Engineers	1	17	6%	-	-	0%	1	9	11%	2	26	8%
2144 - Geological Engineers	-	-	0%	-	-	0%	-	-	0%	-	-	0%

		C&A			E&D		PM			Total		
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
2147 - Computer Engineers (Except Software Engineers			0%			0%			0%			0%
and Designers)	-	-	U%	-	-	U%	_	-	0%	-	-	U%
2148 - Other Professional Engineers, n.e.c.	-	4	0%	-	-	0%	-	6	0%	-	10	0%
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	-	0%	-	1	0%
2154 - Land Surveyors	9	17	53%	-	-	0%	-	2	0%	9	19	47%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	-	0%	1	4	25%	1	4	25%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	1	12	8%	-	-	0%	-	-	0%	1	12	8%
2232 - Mechanical Engineering Technologists and Technicians	1	3	33%	-	-	0%	-	1	0%	1	4	25%
2234 - Construction Estimators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2241 - Electrical and Electronics Engineering Technologists and Technicians	-	5	0%	-	-	0%	-	4	0%	-	9	0%
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	1	0%	-	-	0%	-	-	0%	-	1	0%
2253 - Drafting Technologists and Technicians	1	4	25%	-	-	0%	-	-	0%	1	4	25%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	1	20	5%	1	3	33%	1	9	11%	3	32	9%
2264 - Construction Inspectors	-	2	0%	-	-	0%	-	4	0%	-	6	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	-	-	0%	-	-	0%
3234 - Paramedical Occupations	7	15	47%	-	-	0%	-	-	0%	7	15	47%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	-	-	0%	-	-	0%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	-	2	0%	-	1	0%	-	2	0%	-	5	0%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	-	-	0%	-	-	0%
4169 - Other Professional Occupations in Social Science,	2	2	100%			0%			0%	2	2	100%
n.e.c.		۷	100%	_	-	U%	_	-	U%		2	100%
4312 - Firefighters	-	10	0%	-	-	0%	-	-	0%	-	10	0%
6313 - Accommodation, travel, tourism and related	_	5	0%	_	_	0%	_	_	0%		5	0%
services supervisors		J									,	
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	2	9	22%	-	-	0%	-	-	0%	2	9	22%

		C&A			E&D			PM		Total		
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
6541 - Security Guards and Related security service	16	32	50%	1	1	100%	_	_	0%	17	33	52%
Occupations 6711 - Food Counter Attendants, Kitchen Helpers and Related support Occupations	64	99	65%	-	-	0%	-	-	0%	64	99	65%
7201 - Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	1	22	5%	-	-	0%	-	-	0%	1	22	5%
7202 - Contractors and Supervisors, Electrical Trades and Telecommunications Occupations	-	14	0%	-	-	0%	-	-	0%	-	14	0%
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	19	0%	-	-	0%	-	-	0%	-	19	0%
7205 - Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers	2	24	8%	-	-	0%	-	-	0%	2	24	8%
7233 - Sheet Metal Workers	6	13	46%	-	-	0%	-	-	0%	6	13	46%
7234 - Boilermakers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7236 - Ironworkers	13	123	11%	-	-	0%	-	-	0%	13	123	11%
7237 - Welders and Related Machine Operators	2	17	12%	-	-	0%	-	-	0%	2	17	12%
7242 - Industrial Electricians	33	176	19%	-	-	0%	-	8	0%	33	184	18%
7244 - Electrical Power Line and Cable Workers	1	5	20%	-	-	0%	-	-	0%	1	5	20%
7251 - Plumbers	1	2	50%	-	-	0%	-	-	0%	1	2	50%
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	4	36	11%	-	-	0%	-	-	0%	4	36	11%
7271 - Carpenters	32	220	15%	-	-	0%	-	-	0%	32	220	15%
7281 - Bricklayers	7	104	7%	-	-	0%	-	-	0%	7	104	7%
7293 - Insulators	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7294 - Painters and Decorators (except interior decorators)	-	23	0%	-	-	0%	-	-	0%	-	23	0%
7301 - Contractors and supervisors, mechanic trades	2	11	18%	-	-	0%	-	-	0%	2	11	18%
7302 - Contractors and supervisors, heavy equipment operator crews	-	12	0%	-	-	0%	-	-	0%	-	12	0%
7311 - Construction Millwrights and Industrial Mechanics		73	10%	-	-	0%	-	-	0%	7	73	10%
7312 - Heavy- Duty Equipment Mechanics		16	25%	-	-	0%	-	-	0%	4	16	25%
7371 - Crane Operators		27	22%	-	-	0%	-	-	0%	6	27	22%
7372 - Drillers and Blasters - Surface Mining, Quarrying and Construction	-	-	0%	-	-	0%	-	-	0%	-	-	0%

	C&A		E&D			PM			Total			
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	9	18	50%	-	-	0%	-	2	0%	9	20	45%
7511 - Transport Truck Drivers	28	55	51%	-	-	0%	-	-	0%	28	55	51%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	20	25	80%	-	-	0%	-	-	0%	20	25	80%
7521 - Heavy Equipment Operators (Except Crane)	27	69	39%	-	-	0%	-	-	0%	27	69	39%
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	18	26	69%	-	-	0%	-	-	0%	18	26	69%
7612 - Other Trades Helpers and Labourers	117	152	77%		-	0%	-	-	0%	117	152	77%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
9241 - Power Engineers and power system operators	-	2	0%	-	-	0%	-	1	0%	-	3	0%
Totals	460	1,645	28%	2	5	40%	7	108	6%	469	1,758	27%

Appendix B – Contracts Awarded Since Project Sanction

Table 29 - Contracts Awarded Since Project Sanction

Package #	Package Title	Award Date	Successful Bidder(s)
CH0011-002	Civil Works Agreement Intake, Powerhouse,	15-Feb-19	Pennecon Heavy Civil Limited
	Transition Dams & Spillway – Remaining		
	Construction		
CH0031-001	Supply and Install Mechanical and Electrical	16-Jun-17	Cahill-Ganotec Joint Venture
	Auxiliaries (MF)		
CH0052-002	Muskrat Falls Habitat Compensation Works	18-Aug-2016	Johnsons Construction Limited
CH0049-004	Installation of Debris/Ice/Safety Boom	18-Jul-2016	Johnson's Construction Limited
CT0327-024	350 kV HVdc Long Range Mountains (LRM)	18-May-2016	Mike Kelly & Sons Ltd.
	Access Clearing		
CH0049-003	Fabrication and Supply of Debris, Ice, Safety	7-Apr-2016	M&M Offshore Ltd.
C110043 003	Boom	7 Apr 2010	Wall Stration Eta.
CT0327-051	HVdc Clearing – Blocks 17 & 18	01-Apr-16	Springdale Forest Resources Inc.
CD0501-001	Supply and Install Permanent Communication	21-Mar-16	Bell Aliant Regional Communications,
CD0301-001	Systems, Optical Transport Network (OTN)	21-10101-10	L.P.
CD0E01 004		2 Man 16	
CD0501-004	Transition Compounds – Civil Works	2-Mar-16	Pennecon Heavy Civil Limited
SM0700-024	Transportation of Transmission Line Material	07-Jan-16	Hunt's Transport
	(Island of Newfoundland)		PTL Services / CSL Services
			Christopher's Trucking
			Akita Equipment & Auto Transport
CD510-002	Supply and Install Permanent Communications	06-Jan-16	Talon Energy Services Inc.
	Systems-Prefabricated Buildings		
CT0327-017	HVdc Clearing and Access – Blocks 15 & 16	18-Sept-15	Springdale Forest Resources
CH0009-001	Construction of North and South Dams	14-Aug-15	Barnard Pennecon Limited Partnership
CT0342-002	Transmission Line Construction (HVac 230kV	11-Aug-15	Locke's Electrical Limited
	Modifications and NL Electrode Line)		
LC-PM-186	Project Completion System	23-Jun-15	IBS Canada
CD0508	Supply and Install Electrode Sites	02-Mar-15	H.J.O' Connell Construction Ltd.
CT0327-015	HVdc Clearing and Access – Section 1 (Blocks	09-Jan-15	Johnson's Construction Limited
	Nos. 9, 10, 11, and 12)		
CH0008	North Spur Stabilization Works	23-Dec-14	Gilbert Newfoundland & Labrador
CT0327-014	LIVIde Clearing and Assess Costion 1 / Placks	10 Dec 14	Contracting Limited
C10327-014	HVdc Clearing and Access – Section 1 (Blocks Nos. 13 & 14)	19-Dec-14	Springdale Forest Resources Inc.
CT0327-011	HVdc Clearing and Access – Section 1 (Blocks	23-Sep-14	C&T Enterprises Ltd.
0.002, 011	Nos. 7 & Partial 6)	20 00p 1.	Can Enterprises Etai
CT0327-013	HVdc Clearing and Access-Section 1 (Blocks 4, 5	2-Sep-14	Johnson's Construction Limited
	and 6)	•	
CD0502	Construction of AC Substations	22-Aug-14	Alstom Grid Canada, Inc.
CT0342	Construction of AC Transmission Lines – Island	19-Aug-14	Locke's Electrical Limited
CD0534	Supply & Install Synchronous Condensers at	15-Aug-14	ALSTOM Renewable Power Canada
CT0227	Soldiers Pond	0.4.44	Inc.
CT0327	Construction of 350kV HVdc Transmission Line	8-Aug-14	Valard Construction LP
PH0015	Supply of Isolated Phase Bus	25-Jul-14	Alfa Standard s.p.a
CD0501	HVdc Clearing and Access-Section 1	22-Jul-14	Springdale Forest Resources
CD0501	Supply & Install Converters and Cable Transition Compounds	19-Jun-14	Alstom Grid Canada Inc.
	rransition compounds		

Package #	Package Title	Award Date	Successful Bidder(s)
PT0331	Supply of Tower Hardware 450 kV HVdc	28-May-14	Slacan Industries
			Performed Line Products Limited
CH0034	Supply & Install Powerhouse Elevator	29-Apr-14	Thyssen Krupp Elevator
PT0353	Supply of Optical ground Wire (OPGW) 350 kV	16-Apr-14	Suzhou Furukawa Power Optic Cable
	HVdc		Co.
PT0334	Supply of Steel Wires – 350 kV HVdc	14-Apr-14	Wire Rope Industries Ltd.
SD0564	Provision of Camp Services (CF)	8-Apr-14	Labrador Catering Ltd. Partnership
SH0041	Provision of Ground Transportation Services	14-Mar-14	PENCAL Supplies Ltd & SBH
	(HVGB-MF)		Enterprises Inc., A Joint Venture
LC-SB-011	Subsea Rock Protection Design, Supply and	7-Mar-14	Tideway (Luxembourg) S.A.
SM0709	Installation Provision of Air Transportation	10-Feb-14	Innu Mikun Ltd. Partnership and PAL
31010709	Provision of Air Transportation	10-Feb-14	Airlines
SM0705	Provision of Laboratory Services	10-Feb-14	AMEC Americas Limited
PH0014	Supply of Generator Step-Up Transformers	10-Feb-14	ABB Inc.
PD0537	Supply of Power Transformers, AC Substations	10-Feb-14	ABB Inc.
1 00337	at CF, MF and SP	10 1 CD 14	ADD IIIC.
SH0040	Provision of Garbage Removal and Disposal	23-Jan-14	Pardy's Waste Management &
	Services (MF)		Industrial Services
PH0016	Supply of Generator Circuit Breakers	17-Jan-14	ABB Inc.
PT0328	Supply of Transmission Line Conductors-350 kV	2-Jan-14	General Cable Company Ltd. and
	HVdc		Midal Cables Ltd.
PT0356	Stockbridge Dampers	20-Dec-13	Performed Line Products (Canada) Ltd.
PT0308	Supply of Steel Tower Foundations 350kV HVdc	20-Dec-13	Locweld Inc.
CH0032	Supply & Install Powerhouse & Spillway Hydro-	19-Dec-13	Andritz Hydro Canada Inc.
	Mechanical Equipment		
PT0352	Supply of Anchor Materials 350 kV HVdc	18-Dec-13	Williams Form Hardware & Rockbolt
			(Canada) Ltd.
CT0319	AC Transmission Line Construction	17-Dec-13	Valard Construction LP
SH0018	Camp Catering, Housekeeping and Janitorial Services	16-Dec-13	Labrador Catering Limited Partnership
LC-SB-034	Conduit End Exit Verification	13-Dec-13	DOF Subsea Canada
CH0033	Supply & Install Powerhouse Cranes	9-Dec-13	Groupe LAR Inc.
LC-SB-027	Supply of Casing	4-Dec-13	East Coast Tubulars Ltd.
CH0007	Construction of Intake and Powerhouse	29-Nov-13	Astaldi S.p.A
	Spillway and Transition Dams		
SH0022	Provision of Fuel Supply & Dispensing Services	18-Nov-13	Woodward's Oil Limited and Utapan
			Fuels Limited, a Joint Venture
CT0341	Clearing of Right Of Way for 315kV HVac	15-Nov-13	Great Western Forestry Inc.
1 C CD 026	Transmission Line (MF to CF)	14-Nov-13	HALLIBURTON
LC-SB-026	Drill Bits and Tooling	14-NOV-13	Dreco Energy
			Baker Hughes Canada
			Smith Bits A Schlumberger Company
LC-SB-036	Conduit End Connection	12-Nov-13	Kongsberg Oil and Gas Technologies
	22	15	goverg on and day recimologics
CD0503-002	Construction of Earthworks at Soldier's Pond	18-Oct-13	H.J. O'Connell
PT0330	Supply of Steel Towers-350 kV HVdc	10-Oct-13	Jyoti Amercias LLC
SM0700	Provision of Freight Forwarding Services	3-Oct-13	Panalpina Inc., Panprojects Division
LC-SB-023	Drilling Fluids Services for HDD Program	6-Sep-13	M-I SWACO, a Division of Schlumberger Canada Limited
			Jeniumberger Canada Limited

Package #	Package Title	Award Date	Successful Bidder(s)
LC-SB-024	Directional Services for HDD Program	6-Sep-13	Baker Hughes Canada Company
CD0503-001	Construction of Earthworks at Churchill Falls	5-Sep-13	Johnson's Construction Limited
LC-SB-021	Civil Works-SOBI	22-Aug-13	C&T Enterprises Limited
PH0058	Supply of 600 V Switchgear	25-Jul-13	ABB Inc.
PT0329	Supply of Insulators 350 kV HVdc	22-Jul-13	Seves Canada Inc.
CH0003	Supply and Install Administrative Buildings	19-Jul-13	Opron Construction Inc.
LC-SB-022	Provision of Drilling Rig and Surface Spread for HDD Program	19-Jul-13	Direct Horizontal Drilling Inc.
CT0354	HVAC Marshalling Yard Civil and Electrical Works	17-Jul-13	Johnson's Construction Limited
ST0311	Provision of Survey Services (315) kV HVac	10-Jul-13	MMM Group Limited & N.E. Parrott Surveys Limited, a joint venture
SM0704	Provision of Surveying Services	14-Jun-13	Edwards & Associates Ltd.
SD0565	Provision of Geotech Investigation Shoreline Pond Electrodes	6-Jun-13	Stantec Consulting Ltd.
PT0335	Supply of Anchor Materials – 315 kV HVac	22-Oct-13	Williams Form Hardware & Rockbolt (Canada) Ltd.
CH0024	Construction of Reservoir Clearing North Bank	25-Apr-13	Johnson Construction Ltd.
PT0303	Supply of Hardware 315 kV HVac	17-Apr-13	Mosdorfer GmbH (Austria)
PT0300	Supply of Transmission Line Conductors 315 kV HVac	5-Apr-13	Midal Cables Ltd.
SM0713	Provision of Geotechnical Investigation Services	27-Mar-13	AMEC Environment & Infrastructure
SM0701	Provision of 3rd Party Quality Surveillance and Inspection Services	18-Mar-13	SGS Canada Inc. Killick Group Ltd. GL Noble Denton Canada Ltd Moody International Ltd.
PT0307	Supply of Tower Foundations-315 kV HVac	5-Mar-13	Fabrimet
PT0302	Tower Steels for AC Lines	6-Feb-13	ŞA-RA Energy, Construction, Trade and Industry Inc.
PT0326	Supply of Steel Wires-315 kV HVac	28-Jan-13	Graybar Canada
PT0304	Optical Ground Wire Conductors (OPGW) 315 kV HVac	25-Jan-13	PT0304-001 Mosdorfer North Caroline Inc. PT0304002 Suzhou Furukawa Power Optic Canada Inc.
PT0301	Supply of Insulators 315 kV HVac	18-Jan-13	Seves Canada Inc.
SH0054	Temporary Site Services	10-Jan-13	Labrador Catering Limited Partnership
CH0030	Turbines and Generators	2-Jan-13	Andritz Hydro Canada Inc.
LC-SB-003	Submarine Cable Design, Supply and Install	29-Nov-12	Nexans Norway AS

Package #	Package Title	Award Date	Successful Bidder(s)
LC-SB-018	Provision of Third Party Equipment,	27-Nov-12	Lloyd's Register North America
	Manufacturing, Supply, and Installation		Spectrol Group
	Surveillance Service		
CH0006	Bulk Excavation Works	6-Nov-12	IKC-ONE Earthworks Constructors, a
			Partnership
SH0019	Provision of Security Services	1-Nov-12	Speuata Security Inc.
SH0020	Provision of Medical Services	1-Nov-12	Innu - Med Inc.
CH0002	Supply and Install Accommodations Complex Buildings	22-Oct-12	Liannu Limited Partnership
PH0038	Supply of Emergency Diesel Generator	12-Oct-12	Toromont CAT, a division of Toromont industries Ltd
LC-SB-017	Ocean Characteristic Monitoring and MetOcean Report	13-Sep-12	AMEC Environment & Infrastructure A Division of AMEC Americas
PH0036	Supply of Auxiliary Transformers	13-Aug-12	MVA Power
CD0512	Construction Contract for Construction Power	20-Jun-12	G.J. Cahill & Company Ltd.
CH0004	Southside Access Road	25-Oct-12	Liannu
CH0048	Site Clearing Access Road & Ancillary Areas	20-Apr-12	Nukum Forestry Ltd
PD0522	Pre-Fabricated Control Room Building	11-Apr-12	Automatisation Grimard Inc.
PD0531	MV Instrument Transformer (Combined CT&PT Unit)	19-Mar-12	ABB Inc.
PD0515	138 kV and 25 kV Disconnect Switches (with and without ground switches)	13-Feb-12	Alstom Grid
PD0514	135 kV and 25 kV Circuit Breakers (dead tank type)	6-Feb-12	Alstom Grid Via Power Systems Consulting
PD0518	138 kV Capacitor Voltage Transformers (CVTs)	6-Feb-12	Alstom Grid Via Power Systems Consulting
PD0519	25 kV Vacuum Interrupters	6-Feb-12	Siemens Canada Limited
PD0520	25 kV 6×4 MVAR Capacitor Banks	6-Feb-12	ABB
PD0529	25 kV Reclosers	6-Feb-12	Siemens Canada Limited
PD0530	138 kV and 25 kV Class Surge Arresters	6-Feb-12	Graybar Canada
PD0523	Substation Service Transformers	19-Jan-12	Carte International Inc
LCP 00728	Web-Based Employment and Expenditure Tracking and Reporting Software	22-Aug-11	SCI Resource Software Inc.
LC-SB-002	Iceberg Tracking Program	19-Aug-11	Provincial Aerospace LTD. (PAL)
LC-SB-007	2011 HDD Pilot Bore Field Investigation Program	19-Aug-11	Mears Canada Corp.



Muskrat Falls Project Monthly Report March 2019

May 22, 2019



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1.0 Monthly Report Overview

This report¹ provides the monthly update for March 2019 on the following projects associated with the Muskrat Falls development:

- the 824 megawatt (MW) hydroelectric development at Muskrat Falls (the Muskrat Falls hydroelectric generating facility);
- two 315 kilovolt (kV) High Voltage alternating current (HVac) transmission lines between Muskrat Falls and Churchill Falls (the Labrador Transmission Assets); and
- the 1,100 km long High Voltage direct current (HVdc) transmission line between Muskrat Falls and Soldiers Pond (the Labrador-Island Transmission Link).

Included in this report are details on construction activities and costs, safety and environmental activities, procurement information, and details on stakeholder and community engagement initiatives during the reporting period. The report also provides detailed statistical tables summarizing employment and expenditure benefits generated from the Muskrat Falls development.

2.0 Highlights this Month

Construction of the Muskrat Falls Project progressed during the month on both the generation and transmission components. As of the end of March:

- overall construction of the Muskrat Falls Project remained at 97% complete;
- the Muskrat Falls generation project remained at 94% complete;
- both the Labrador-Island Transmission Link and the transmission line connecting Churchill Falls to Muskrat Falls remained at over 99% complete.

3.0 Construction Update

3.1 Muskrat Falls Hydroelectric Generating Facility

The following outlines some of the construction activities for the components of the Muskrat Falls hydroelectric generation facility undertaken in March:

- Pennecon Heavy Civil Ltd. continued to undertake civil work on the Intake and Powerhouse. In the Intake, civil scope at Intake 2 was completed. In the Powerhouse, the generator slab was completed for Unit 3 and in the pit walls were completed in Unit 4.
- Andritz Hydro Canada Inc. continued assembly of the runner, rotor and head cover for Unit 1 in the South Service Bay.
- Cahill-Ganotec continued to work on balance of plant activities for architectural, electrical and piping work; mechanical completion and commissioning.
- Andritz Hydro Canada Inc. completed installation of Intake gates and hoists and all the electrical work associated with the Intake hoist house.
- Intake was completed for water tight and water-up commenced.

Muskrat Falls Project – March 2019 Project Report

¹ This report is prepared by Lower Churchill Management Corporation (LCMC), the Nalcor Energy subsidiary responsible for managing the construction of the Muskrat Falls hydroelectric generating facility, the Labrador Transmission Assets and the Labrador-Island Transmission Link.

• Barnard – Pennecon Limited Partnership completed the removal of Intake channel fill material.



North Dam – looking north towards the Knoll



Intake and Intake Channel



Tailrace Channel



Unit 1 in the Powerhouse



Assembly of turbine and generator parts in the South Service Bay of the Powerhouse

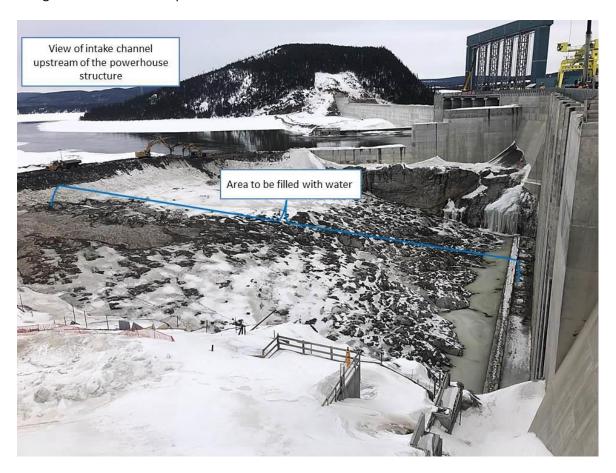
Intake Water-up

Thanks to the continued efforts by our various teams at the Muskrat Falls site, at the end of March we began to fill the intake channel with water. To fill the intake channel, we began by pumping water in a controlled manner into the intake channel.

The intake channel is the area between the river and the intake structure (upstream side of the powerhouse). To provide a dry area for construction of the intake and powerhouse, a rock and earth cofferdam was placed at the entrance to the intake channel. Once the intake channel was filled with water, we then removed the rock and earth cofferdam (this work took place in April).

The intake structure is on the upstream side of the powerhouse structure and consists of four intakes with three bays each. The intake is 56 m high and 143 m wide.

When we are ready to generate power, water will flow through the intakes into each of the four turbine and generator units in the powerhouse.



3.2 Labrador Transmission Assets (LTA)

Construction of LTA is complete. Activities on the LTA continued during the month with work on punch list items at both the Churchill Falls and Muskrat Falls switchyards. Finalization of access road reclamation work is in progress.

3.3 Labrador-Island Transmission Link (LIL)

Construction of the transmission line from Muskrat Falls to Soldiers Pond is complete. Activities for LIL continued during the month and included:

- Continuation of HVdc Control System software development.
- Continuation of work on punch list and clean-up items at the Soldiers Pond AC Switchyard.
- Continuation of Pole 1 and Pole 2 punch list items and Pole 2 static commissioning activities at the Muskrat Falls and Soldiers Pond Converter Stations.
- Continuation of work on punch list items at the Forteau Point and Shoal Cove Transition Compounds.
- Continuation of static commissioning activities at the Soldiers Pond Synchronous Condenser site.

3.4 Construction Cost Summary

The current facilities capital cost estimate of the Muskrat Falls Project is \$10.1 billion. The total cost including interest during construction and capitalized financing costs is \$12.7 billion (see Table 1).

3.4.1 Incurred Cost Overview

Table 1 summarizes the incurred costs for the project for the month of March and for the project to date. Incurred costs refer to the value of work performed during the period regardless of it being paid during the current period or at some point in the future.

Table 1 - Estimate and Incurred costs for Muskrat Falls Project to March 2019 (Costs in millions of CAD \$)*

Project Component	Current Cost	Incurred Cost	Incurred Cost Project
	Estimate	Current Month	to Date
Muskrat Falls Hydroelectric	\$5,500	\$50.6	\$4,756
Generating Facility			
Labrador Transmission Assets	\$904	\$2.7	\$855
Labrador-Island Transmission Link	\$3,714	\$10.6	\$3,510
Total	\$10,118	\$63.9	\$9,121

^{*} Value excludes interest during construction and capitalized financing costs.

3.4.2 Monthly Expenditure Overview

- Total expenditures paid for the Muskrat Falls Project were almost \$62 million in March 2019. This included over \$45 million to Newfoundland and Labrador businesses.
- From January 2013 to the end of the reporting period in March 2019, \$2.9 billion has been spent directly with Newfoundland and Labrador-based companies.
- The cumulative expenditures made to NL business since Project Sanction is illustrated in Figure 1.

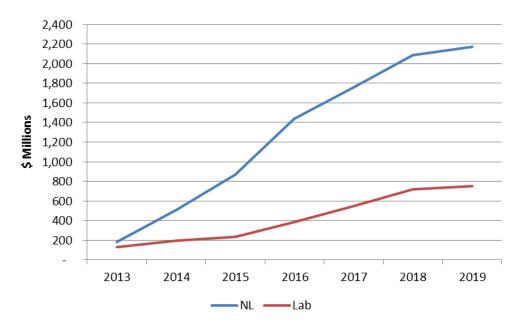


Figure 1 - Cumulative Expenditures to Newfoundland and Labrador Businesses (Jan 2013 to March 2019)

4.0 Safety and Environment

4.1 Safety

LCP and all contractors working on the Muskrat Falls Project have a relentless commitment to the safety of workers and the public. Table 2 outlines the Health and Safety indicators and measurements for the month of March and for the project to date.

Table 2 - Health and Safety Indicators and Measurements - March 2019 and Project to Date

Indicator	March 2019	Project to Date
Orientations completed	216	56,400
Safety Step Backs completed	12,258	1,906,261
Work site inspections	374	99,069
Lost-time injuries	0	16
Medical aid incidents	0	114

Achieving Safety Milestone

In March, the overall Muskrat Falls Project achieved a significant safety milestone by surpassing two years without recording a Lost Time Injury. This milestone exemplifies our unwavering commitment to safe work performance and unrelenting effort to ensure each and every person working on the Muskrat Falls Project goes home safely every day.

We have worked hard to establish a safety culture where every injury is truly seen as preventable and where every day each person performs tasks that demonstrate they actively care for their safety and the safety of those they work with.

4.2 Environment

The LCP Environment and Regulatory Compliance (ERC) Team is committed to maintaining a high standard of environmental responsibility that will help to sustain a diverse and healthy environment for generations of Newfoundlanders and Labradorians.

Since Project construction started in 2012, wildlife sightings have been recorded as part of the environmental effects monitoring program for the Project. One of the species that are recorded is black bear (*Ursus americanus*). To date, we have recorded approximately 700 observations. These observations have been recorded as early as April and as late as November in any given year.

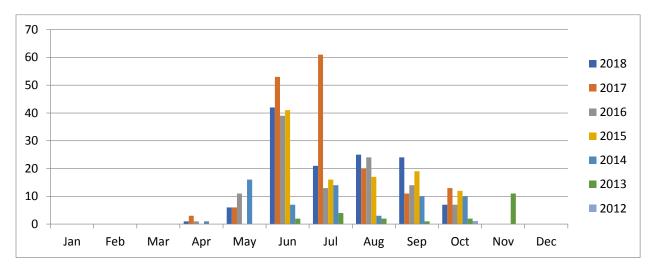


Figure 2 – Black Bear Sightings by Month and Year

As depicted in Figure 2 and in line with the life history of black bears, habitat use by black bears in the lower Churchill River watershed varies by season. During winter, from approximately early November to late April, black bears are in dens. Bears will start to be exiting their dens around April and May.

5.0 Employment, Benefits and Community Engagement

This section provides information on employment benefits generated during the month as well as details on some of the community activities undertaken during the month. Some of these activities are part of commitments made by LCP through the Benefits Strategy with the provincial government, the Impacts and Benefits Agreement (IBA) with Innu Nation, the Gender Equity and Diversity Program, and provincial and federal environmental regulatory commitments.

5.1 Employment Highlights

The employment highlights for the month of March are summarized below. Detailed employment information and statistics are outlined in Section 8.

- In March, almost 463,000 hours were worked by 2,421 individuals on the projects, including over 403,000 hours of work in Labrador.
- During the month of March, 2,252 residents of Newfoundland and Labrador were employed on the projects, representing 93 per cent of the total persons employed.
- In March, there were 2,013 people working in Labrador, of whom 595 were Labrador residents (approximately 30 per cent). Of these 595 Labrador residents, 214 self-identified as a member of a Labrador Aboriginal group (approximately 36 per cent). A breakdown of the employment in Labrador by affiliation is shown in Figure 3 below.

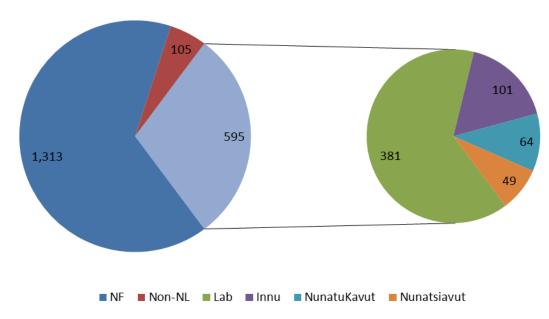


Figure 3 - Employment in Labrador by Affiliation (March 2019)

5.2 Recruitment Activities

Employers continue to utilize <u>muskratfallsjobs.com</u> as a tool to find qualified residents of the province to fill available positions. The website also details current opportunities with the LCP Project Delivery Team as well as contact information for LCP recruitment service providers.

5.2.1 Workplace Orientation

To foster a safe and respectful workplace, all workers complete mandatory training in site safety rules and procedures, respectful workplace protocols, and gender and cultural awareness.

5.2.2 Labrador Aboriginal Training Partnership (LATP) Support

The LATP continued to offer client counseling to Aboriginal individuals seeking employment, as well as providing funding support for safety certifications. While LCP is no longer the industry partner in this organization, as the LATP has engaged with Vale for a multi-year project, LATP still has the ability to assist clients who may be connected to employment at Muskrat Falls.

5.3 Gender Equity and Diversity

5.3.1 Employment of Women

In March, 322 women were working on all project components, comprising approximately 13 per cent of the total workforce. Of these, 110 were working in construction, 8 in engineering, 118 in project management, and 86 in project support. Of the 322 women working on the project, 306 of them are Newfoundland and Labrador residents. Table 3 below breaks down the types of jobs held by female workers during March.

Table 3 - Types of Jobs Worked by Females (March 2019)

Job Type	Number
Camp and Catering Staff	55
Administrative Staff	43
General Labourer	31
Student	28
Financial/Accounting Staff	25
Other trades	23
Other professional	20
Engineering	15
EMR/security	13
HR Staff	13
Civil Technologist	12
H&S Staff	9
Electrician	8
Heavy Equipment Operator	7
Other technical	7
Environmental Staff	5
Procurement	4
Carpenter/Scaffolder	4
Total	322

5.3.2 Promoting Women in Trades

LCP continued to work closely with the Office to Advance Women Apprentices (OAWA) to support female apprentices gain employment on the Project, as well as addressing issues with those already employed.

5.4 Employment of Students and Apprentices

LCP supports the hiring of students and apprentices. Statistical data on the hiring of students and apprentices is provided in the following sections.

5.4.1 Employment of Students

In the first quarter of 2019, there were 40 students working on the Muskrat Falls Project. Figure 4 below illustrates the quarterly time profile of students working on the Project between the first quarter of 2016 and the end of the first quarter of 2019.

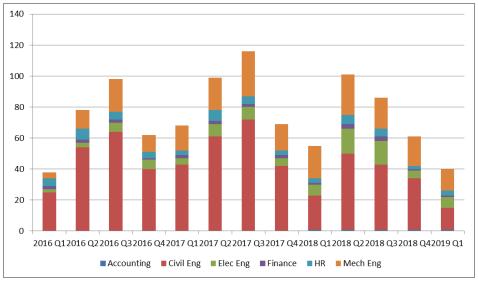


Figure 4 - Employment of Students by Quarter (Q1 2016 to Q1 2019)

5.4.2 Employment of Apprentices

During the first quarter of 2019, 232 apprentices were working on the project, including 30 females. Figure 5 below illustrates the quarterly time profile of apprentices working on the Project between the first quarter of 2016 and the end of the first quarter of 2019.

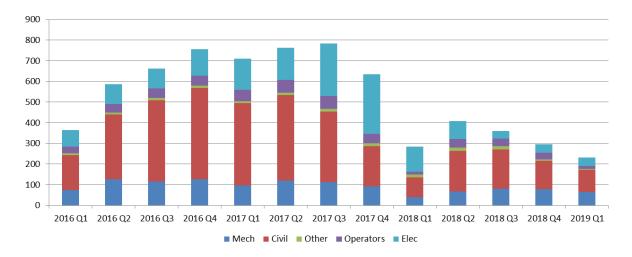


Figure 5 - Employment of Apprentices by Quarter (Q1 2016 to Q1 2019)

5.5 Labrador Innu Initiatives - Impacts and Benefits Agreement (IBA) Implementation Activities

During the month of March, 101 Innu were employed at Muskrat Falls and transmission line sites in Labrador. Innu employees were working in a wide range of occupations, including construction trades, labourers, camp accommodations and food services. The Innu workforce included persons occupying management, apprenticeship, foreperson and shop steward positions.

5.6 Community Engagement

LCP has established multiple venues for members of the public to ask questions, seek employment information, and get details about the Muskrat Falls development. LCP has a website that provides information on project construction activities (muskratfalls.nalcorenergy.com). In addition, people can contact LCP through the toll-free number, by email, or by visiting the project office in Happy Valley-Goose Bay.

6.0 Definitions

Term	Definition
Benefits Strategy	Lower Churchill Construction Project Benefits Strategy as agreed by the Province of Newfoundland and Labrador and LCP.
Expenditures	Expenditures for the month are defined as those expenditures from invoices which have been approved for payment during the month.
Incurred Costs	Value of work performed during the period (month) regardless of it being paid during the current period or at some point in the future.
Industry Category	Based on the North American Industry Classification System (NAICS) and used to categorize companies for expenditure reporting.
Island or NF	Refers to the residency of employees, the location of work completed or the location of a company; includes residents from, work done on or companies located on the island portion of NL.
NOC Code	Occupational codes from the National Occupational Classification system, which is the standard system for classifying jobs in Canada. It is a hierarchical structure with four levels of classifications. Both the 2-digit and 4-digit classifications are used in this report.
Person Hours	Hours worked by individuals on the project.
Persons Employed	Any person who has worked at any time on the Project during the time period referenced.
Project to Date	Cumulative totals for the period from February 1, 2013 up to the end of the current month.
Residents	Residents of Newfoundland and Labrador who meet the requirements as defined in the Benefits Strategy.

7.0 Abbreviations and Acronyms

Abbreviation/Acronym	Definition
BMRS	Benefits Monitoring and Reporting System
C&A	Construction and Assembly
CEC	Conduit End Connection
CLC	Community Liaison Committee
CNA	College of the North Atlantic
CPR	Cardiopulmonary Resuscitation
	Centre Transition Dam
CTD	
DG3	Decision gate 3
E&D	Engineering and Design
EMC	Environmental Management Committee
EMS	Environmental Management System
EPP	Emergency Preparedness Plans
ERC	Environment and Regulatory Compliance
FAT	Factory Acceptance Testing
GIS	Gas Insulated Switchgear
GPR	Ground Penetrating Radar
HDD	Horizontal Directional Drilling
HHRA	Human Health Risk Assessment
HVac	High voltage AC transmission
HVdc	High voltage DC transmission
IBA	Impacts and Benefits Agreement
INT	International (Location of Work or Company)
kV	Kilovolt
LATP	Labrador-Aboriginal Training Partnership
LCP	Lower Churchill Project
LIL	Labrador-Island Transmission Link
LRM	Long Range Mountains
LTA	Labrador Transmission Assets
MeHg	Methylmercury
MFG	Muskrat Falls Hydroelectric Generation Facility
MW	Megawatt
NLESA	Newfoundland and Labrador Endangered Species Act
NLOWE	Newfoundland and Labrador Organization of Women Entrepreneurs
OAWA	Office to Advance Women Apprentices
OC	Other Canada
OSEM	On-site Environmental Monitor
PEGNL	Professional Engineers and Geoscientists of Newfoundland and Labrador
PM	Project Management
RCC	Roller-compacted concrete
Res	Residents of Newfoundland and Labrador
RFP	Request for Proposal
ROW	Right of Way
SOBI	Strait of Belle Isle
T&G	Turbine and Generator
THg	Total Mercury
тто	Transition to Operations
WRDC	Women in Resource Development Corporation
	1

8.0 Employment Benefits

All information on employment is provided by both person hours and the number of persons employed for the following categories:

- Total employment
- Employment by NOC Code
- Employment by Location of Work
- Employment by Aboriginal Affiliation
- Employment by Gender

8.1 Total Employment

Tables 4 through 6 break out the project employment in both person hours and persons employed by location of work and residency.

Table 4 - Person Hours of Employment by Location of Work and Residency (March 2019)

	Residency										
	Island		Labrador		Other (Canada	Non-Ca				
Work Location	at Location	% of Total	Total								
Island	47,736	82.9%	491	0.9%	7,740	13.4%	1,625	2.8%	57,591		
Labrador	273,909	67.9%	107,902	26.7%	20,474	5.1%	1,175	0.3%	403,459		
Other Canada	-	0.0%	-	0.0%	1,294	100.0%	-	0.0%	1,294		
International	-	0.0%	-	0.0%	260	100.0%	-	0.0%	260		
Total	321,645	69.5%	108,392	23.4%	29,768	6.4%	2,800	0.6%	462,605		

Table 5 - Person Hours of Employment by Location of Work and Residency (Project to Date)

	Residency												
	Islan	d	Labra	ador	Other (Canada	Non-Ca						
Work Location	at Location	% of Total	Total										
Island	6,262,302	80.7%	199,202	2.6%	1,158,673	14.9%	137,556	1.8%	7,757,732				
Labrador	21,003,955	58.5%	9,478,358	26.4%	5,039,685	14.0%	397,772	1.1%	35,919,770				
Other Canada	8,940	2.4%	-	0.0%	363,191	95.6%	7,618	2.0%	379,749				
International	-	0.0%	-	0.0%	9,530	12.0%	69,997	88.0%	79,527				
Total	27,275,197	61.8%	9,677,560	21.9%	6,571,079	14.9%	612,943	1.4%	44,136,778				

Table 6 - Number of Persons Employed by Location of Work and Residency (March 2019)

	Residency												
	Island		Labrador		Other (Canada	Non-Ca						
Work Location	at Location	%of Total	Total										
Island	340	86.7%	4	1.0%	39	9.9%	9	2.3%	392				
Labrador	1,313	65.2%	595	29.6%	99	4.9%	6	0.3%	2,013				
Other Canada	-	0.0%	-	0.0%	15	100.0%	-	0.0%	15				
International	-	0.0%	-	0.0%	1	100.0%	-	0.0%	1				
Total	1,653	68.3%	599	24.7%	154	6.4%	15	0.6%	2,421				

8.2 Employment by NOC Code

Tables 7 and 8 summarize project employment by 2-digit NOC Code. Appendix A contains an overview of the methodology used to capture employment by job title and how that information is converted to NOC codes. In addition, occupational information by 4-digit NOC code as well as information on employment by NOC code and gender, Aboriginal affiliation and for residents of Labrador is also provided in Appendix A.

Table 7 - Person Hours of Employment by 2-Digit NOC Code (March 2019 and Project to Date)

		Current	Month			Project to Date			
2-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total	
00 - Senior management occupations	191	-	2,051	2,242	133,159	8,008	78,497	219,663	
01-05 - Specialized middle management occupations	3,589	615	3,311	7,514	517,404	120,819	398,140	1,036,362	
07-09 - Middle management occupations in trades, transportation,	2,240		4,189	6,429	668,968	12,249	254,275	935,491	
production and utilities	2,240		4,169	0,429	000,900	12,249	234,273	333,431	
11 - Professional occupations in business and finance	1,747	-	4,679	6,426	205,852	18,308	321,919	546,079	
12 - Administrative and financial supervisors and administrative occupations	4,857	821	7,408	13,085	599,874	188,924	629,517	1,418,314	
13 - Finance, insurance and related business administrative occupations	480	64	1,249	1,793	105,692	15,472	137,263	258,427	
14 - Office support occupations	2,694	-	179	2,872	324,522	72	5,052	329,646	
21 - Professional occupations in natural and applied sciences	17,179	3,969	29,349	50,496	2,013,819	718,046	1,817,913	4,549,778	
22 - Technical occupations related to natural and applied sciences	12,427	1,072	11,275	24,773	1,492,430	383,542	736,456	2,612,428	
32 - Technical occupations in health	2,586	-	-	2,586	298,235	-	4,188	302,423	
41 - Professional occupations in law and social, community and government	913	1,304	2,615	4,832	227,646	105,495	191,614	524,755	
services	913	1,304	2,013	4,632	227,040	103,433	191,014	324,733	
43 - Occupations in front-line public protection services	2,441	-	304	2,745	47,910	-	3,267	51,177	
63 - Service supervisors and specialized service occupations	2,487	-	-	2,487	286,140	-	7,472	293,612	
65 - Service representatives and other customer and personal services	9,470	189	_	9,659	589,775	12,553	6,593	608,920	
occupations	3,470	103		3,033	303,773	12,333	0,555	000,520	
67 - Service support and other service occupations, n.e.c.	17,837	-	-	17,837	1,598,113	-	4,142	1,602,255	
72 - Industrial, electrical and construction trades	185,380	-	4,479	189,859	12,572,812	12,789	229,213	12,814,814	
73 - Maintenance and equipment operation trades	30,338	-	1,314	31,652	2,232,282	2,193	48,708	2,283,183	
74 - Other installers, repairers and servicers and material handlers	4,673	-	203	4,876	320,786	48	24,993	345,828	
75 - Transport and heavy equipment operation and related maintenance	34,867	_	10	34,877	5,878,059	2,145	112,059	5,992,263	
occupations	34,007		10	3-,077	3,070,033	2,143	112,033	3,332,203	
76 - Trades helpers, construction labourers and related occupations	42,786	-	599	43,385	6,594,491	3,995	110,981	6,709,468	
82 - Supervisors and technical occupations in natural resources, agriculture	_	_	_	_	542,351	_	7,696	550,046	
and related production	_			_	342,331		7,090	330,040	
86 - Harvesting, landscaping and natural resources labourers	-	-	-	-	80,937	60	6,723	87,720	
92 - Processing, manufacturing and utilities supervisors and central control	356	_	1,827	2,183	37,358	_	26,768	64,125	
operators	550		1,027	2,103	37,330		20,700	04,123	
All Occupation Categories	379,536	8,033	75,037	462,605	37,368,615	1,604,715	5,163,448	44,136,777	

Table 8 - Residents Hired by 2-Digit NOC Code (March 2019)

		C&A			E&D			PM			Total	
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
2-Digit NOC	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
00 - Senior management occupations	13	2	650%	-	-	0%	-	13	0%	13	15	87%
01-05 - Specialized middle management occupations	17	19	89%	2	5	40%	29	28	104%	48	52	92%
07-09 - Middle management occupations in trades,	11	12	92%			0%	15	21	71%	26	33	79%
transportation, production and utilities	11	12	92%		-	0%	15	21	/1%	20	33	79%
11 - Professional occupations in business and finance	6	8	75%	-	-	0%	30	30	100%	36	38	95%
12 - Administrative and financial supervisors and	15	25	60%	5	5	100%	22	42	52%	42	72	58%
administrative occupations	15	25	60%	Э	5	100%	22	42	52%	42	72	38%
13 - Finance, insurance and related business	1	2	50%	1	1	100%	11	11	100%	13	14	93%
administrative occupations	1	2	3076	1	1	100/6	11	11	100/6	13	14	33/0
14 - Office support occupations	14	11	127%	-	-	0%	11	2	550%	25	13	192%
21 - Professional occupations in natural and applied	97	74	131%	5	25	20%	129	174	74%	231	273	85%
sciences	37	74	131/0	J	23	20/6	129	1/4	74/0	231	2/3	03/0
22 - Technical occupations related to natural and applied	47	57	82%	9	11	82%	73	82	89%	129	150	86%
sciences	٦,	37	02/0	3	11		/3	02	05/0	123		
32 - Technical occupations in health	14	15	93%	-	-	0%	-	-	0%	14	15	93%
41 - Professional occupations in law and social, community	4	5	80%	1	3	33%	29	17	171%	34	25	136%
and government services	7	3	0070	-	3		23	17	171/0	34	25	130/0
43 - Occupations in front-line public protection services	12	12	100%	-	-	0%	1	1	100%	13	13	100%
63 - Service supervisors and specialized service	9	12	75%	_	_	0%	_	_	0%	9	12	75%
occupations	3		7370			0,0			070	,		7370
65 - Service representatives and other customer and	6	54	11%	1	1	100%	9	_	0%	16	55	29%
personal services occupations	-		-	_	_							
67 - Service support and other service occupations, n.e.c.	107	107	100%	-	-	0%	-	-	0%	107	107	100%
72 - Industrial, electrical and construction trades	872	905	96%	-	-	0%	53	54	98%	925	959	96%
73 - Maintenance and equipment operation trades	147	150	98%	-	-	0%	11	11	100%	158	161	98%
74 - Other installers, repairers and servicers and material	19	19	100%	_	_	0%	2	2	100%	21	21	100%
handlers	13	13	100/0			070	2	2	100/0	21	21	100/0
75 - Transport and heavy equipment operation and	166	167	99%	_	_	0%	2	2	100%	168	169	99%
related maintenance occupations	100	107	3370			0,0	_	_	100/0	100	103	3370
76 - Trades helpers, construction labourers and related	195	195	100%	_	_	0%	12	12	100%	207	207	100%
occupations	133	133	100/0			0 70			100/0	207		20070
82 - Supervisors and technical occupations in natural	-	_	0%	_	-	0%	-	_	0%	-	_	0%
resources, agriculture and related production			-/-			-,-			-,-			-,-
86 - Harvesting, landscaping and natural resources	-	-	0%	_	-	0%	-	_	0%	-	-	0%
labourers												
92 - Processing, manufacturing and utilities supervisors	2	2	100%	-	-	0%	15	15	100%	17	17	100%
and central control operators												
All Occupation Categories	1,774	1,853	96%	24	51	47%	454	517	88%	2,252	2,421	93%

8.3 Employment by Location of Work

Table 9 - Person Hours of Employment by Location of Work (March 2019 and Project to Date)

	Current Period					Project to Date				
Work Location	C&A	E&D	PM	Total	C&A	E&D	PM	Total		
NL										
Island	5,422	6,577	45,593	57,591	3,599,660	1,111,316	3,046,756	7,757,732		
Labrador	373,753	654	29,052	403,459	33,517,570	325,391	2,077,030	35,919,991		
Total NL	379,175	7,231	74,645	461,051	37,117,231	1,436,706	5,123,787	43,677,723		
Other Canada	360	802	132	1,294	186,831	167,899	24,798	379,528		
Total Canada	379,536	8,033	74,777	462,345	37,304,061	1,604,605	5,148,584	44,057,251		
International	-	-	260	260	64,554	109	14,864	79,527		
All Locations	379,536	8,033	75,037	462,605	37,368,615	1,604,714	5,163,448	44,136,778		

Table 10 - Residents Hired by Location of Work (March 2019)

	C&A			E&D				PM		Total		
Work Location	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total
NL												
Island	39	40	98%	19	36	53%	286	316	91%	344	392	88%
Labrador	1,735	1,809	96%	5	5	100%	168	199	84%	1,908	2,013	95%
Total NL	1,774	1,849	96%	24	41	59%	454	515	88%	2,252	2,405	94%
Other Canada	-	4	0%	-	10	0%	-	1	0%	-	15	0%
Total Canada	1,774	1,853	96%	24	51	47%	454	516	88%	2,252	2,420	93%
International	-	-	0%	-	-	0%	-	1	0%	-	1	0%
Total	1,774	1,853	96%	24	51	47%	454	517	88%	2,252	2,421	93%

8.4 Employment by Aboriginal Affiliation

Table 11 - Person Hours of Employment by Aboriginal Affiliation (March 2019 and Project to Date)

		Current Period				Project to Date			
Aboriginal Group	C&A	E&D	PM	Total	C&A	E&D	PM	Total	
Labrador Innu ^(a)	17,111	-	476	17,587	1,378,063	-	34,115	1,412,178	
Nunatsiavut ^(a)	9,843	-	160	10,003	988,764	23,146	37,430	1,049,339	
NunatuKavut ^(a)	13,608	270	416	14,294	1,274,548	14,150	41,618	1,330,316	
Other NL Aboriginal ^(a)	6,512	-	337	6,848	531,143	-	39,324	570,467	
Aboriginal - Other Canada	396	-	-	396	202,326	-	2,362	204,688	
Non-Aboriginal ^(b)	332,066	7,763	73,649	413,477	33,067,077	1,567,669	4,935,042	39,569,789	
All Groups	379,536	8,033	75,037	462,605	37,441,920	1,604,965	5,089,892	44,136,777	

⁽a) Also NL residents

Table 12 - Persons Employed by Aboriginal Affiliation (March 2019)

	C8	kΑ	E8	k D	P	M	Tot	al
Aboriginal Group	Persons	%	Persons	%	Persons	%	Persons	%
Residents								
Labrador Innu	98	5.5%	-	0.0%	3	0.7%	101	4.5%
Nunatsiavut	49	2.8%	-	0.0%	1	0.2%	50	2.2%
NunatuKavut	63	3.6%	1	4.2%	2	0.4%	66	2.9%
Other Aboriginal	31	1.7%	-	0.0%	3	0.7%	34	1.5%
All Aboriginal	241	13.6%	1	4.2%	9	2.0%	251	11.1%
Non-Aboriginal	1,533	86.4%	23	95.8%	445	98.0%	2,001	88.9%
Total	1,774	100%	24	100%	454	100%	2,252	100%
Non Residents								
Aboriginal – Canada	2	2.5%	-	0.0%	-	0.0%	2	1.2%
Non-Aboriginal	77	97.5%	27	100.0%	63	100.0%	167	98.8%
Total	79	100%	27	100%	63	100%	169	100%
Summary								
Aboriginal	243	13.1%	1	2.0%	9	1.7%	253	10.5%
Non-Aboriginal	1,610	86.9%	50	98.0%	508	98.3%	2,168	89.5%
Total	1,853	100%	51	100%	517	100%	2,421	100%

⁽b) Includes residents and non-residents

Tables 13 through 15 summarize the employment of Aboriginal people and non-Aboriginal people both in terms of hours worked and persons employed by location of work during the month and for the Project to Date.

Table 13 - Person Hours of Employment by Location of Work and Aboriginal Affiliation (March 2019)

	Labrador	Innu	Nunatuk	avut	Nunatsia	avut	Other Ab	original	Non-Abo	original	
Work	At		At		At		At		At		
Location	Location	%	Location	%	Location	%	Location	%	Location	%	Total
Island	-	0.0%	287	0.5%	60	0.1%	337	0.6%	56,908	98.8%	57,591
Labrador	17,587	4.4%	14,008	3.5%	9,943	2.5%	6,728	1.7%	355,195	88.0%	403,459
Other Canada	-	0.0%	-	0.0%	-	0.0%	180	13.9%	1,114	86.1%	1,294
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	260	100.0%	260
All Locations	17,587	3.8%	14,294	3.1%	10,003	2.2%	7,244	1.6%	413,477	89.4%	462,605

Table 14 - Person Hours of Employment by Location of Work and Aboriginal Affiliation (Project to Date)

	Labrador Innu		NunatuKavut		Nunatsiavut		Other Aboriginal		Non-Aboriginal		
Work Location	At Location	%	At Location	%	At Location	%	At Location	%	At Location	%	Total
Island	2,961	0.0%	67,421	0.9%	24,797	0.3%	77,519	1.0%	7,585,034	97.8%	7,757,732
Labrador	1,409,217	3.9%	1,262,894	3.5%	1,024,542	2.9%	696,233	1.9%	31,526,883	87.8%	35,919,770
Other Canada	-	0.0%	-	0.0%	-	0.0%	1,403	0.4%	378,346	99.6%	379,749
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	79,527	100.0%	79,527
All Locations	1,412,178	3.2%	1,330,316	3.0%	1,049,339	2.4%	775,155	1.8%	39,569,789	89.7%	44,136,778

Table 15 - Number of Persons Employed by Location of Work and Aboriginal Affiliation (March 2019)

	Labrador Innu		NunatuKavut		Nunatsiavut		Other Aboriginal		Non-Aboriginal		
Work	At		At		At		At		At		
Location	Location	%	Location	%	Location	%	Location	%	Location	%	Total
Island	-	0.0%	2	0.5%	1	0.3%	3	0.8%	386	98.5%	392
Labrador	101	5.0%	64	3.2%	49	2.4%	32	1.6%	1,767	87.8%	2,013
Other Canada	-	0.0%	-	0.0%	-	0.0%	1	6.7%	14	93.3%	15
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	1	100.0%	1
All Locations	101	4.2%	66	2.7%	50	2.1%	36	1.5%	2,168	89.5%	2,421

8.5 Employment by Gender

Table 16 - Person Hours of Employment by Gender (March 2019 and Project to Date)

		Curren	t Period		Project to Date			
Gender	C&A	E&D	PM	Total	C&A	E&D	PM	Total
Female	37,954	1,113	16,743	55,809	3,706,529	233,683	1,102,194	5,042,406
Male	341,582	6,920	58,294	406,796	33,735,391	1,371,282	3,987,698	39,094,371
Total	379,536	8,033	75,037	462,605	37,441,920	1,604,965	5,089,892	44,136,777

Table 17 - Persons Employed by Gender (March 2019)

	C&	C&A		E&D		M	Total	
Gender	Persons	%	Persons	%	Persons	%	Persons	%
Residents								
Female	187	10.5%	7	29.2%	112	24.7%	306	13.6%
Male	1,587	89.5%	17	70.8%	342	75.3%	1,946	86.4%
Total	1,774	100%	24	100%	454	100%	2,252	100%
Non Residents								
Female	9	11.4%	1	3.7%	6	9.5%	16	9.5%
Male	70	88.6%	26	96.3%	57	90.5%	153	90.5%
Total	79	100%	27	100%	63	100%	169	100%
Summary								
Female	196	10.6%	8	15.7%	118	22.8%	322	13.3%
Male	1,657	89.4%	43	84.3%	399	77.2%	2,099	86.7%
Total	1,853	100%	51	100%	517	100%	2,421	100%

9.0 Expenditures and Procurement

Expenditures are captured through direct entry of expenditure breakdowns by contractors which enter directly into the benefits system. For all other contractors, a listing of payments approved during the month from the project's financial accounting system is used. In all cases, expenditure totals are those that are approved for payment during the month.

9.1 Expenditures by Location of Company and Industry Category

Table 18 - Total Value of Expenditures by Location of Company and Industry Category (\$CDN; March 2019)

Industry	Labrador	Newfoundland	Other Canada	Non- Canadian	Totals
Accommodation and Food Services	15,970	3,377,191	ı	=	3,393,161
Administrative and Support, Waste Management and Remediation Services	5,457	40	-	-	5,497
Agriculture, Forestry, Fishing and Hunting	1	1	1	-	1
Arts, Entertainment and Recreation	-	-	1	-	-
Construction	3,410,821	27,270,601	718,258	8,117	31,407,796
Educational Services	1	1,055	1	-	1,055
Finance and Insurance	-	-	70,223	-	70,223
Health Care and Social Assistance	1	1	290,274	-	290,274
Information and Cultural Industries	ı	ı	191,854	=	191,854
Management of Companies and Enterprises	ı	ı	ı	=	-
Manufacturing	9,454	95,029	11,283,351	-	11,387,833
Mining, Quarrying, and Oil and Gas Extraction	184,392	ı	ı	=	184,392
Other Services, Including Maintenance and Repair	12,976	256,340	45,241	-	314,557
Professional, Scientific and Technical Services	21,925	4,691,056	3,482,447	96,597	8,292,026
Public Administration	1,401,573	3,047	ı	=	1,404,620
Real Estate, Rental and Leasing	13,500	50,173	2,604	-	66,277
Retail Trade	3,063	68,343	-	-	71,406
Transportation and Warehousing	456,520	752,534	44,145	-	1,253,200
Utilities	-	2,971,816	161,156	-	3,132,972
Wholesale Trade	4,850	63,232	14,037	-	82,119
Grand Total	5,540,502	39,600,456	16,303,590	104,714	61,549,262

Table 19 - Total Value of Expenditures by Location of Company and Industry Category (\$CDN; Project to Date)

Industry	Labrador	Newfoundland	Other Canada	Non- Canadian	Totals
Accommodation and Food Services	3,066,007	247,237,770	18,506,754	139,278	268,949,808
Administrative and Support, Waste Management and Remediation Services	775,108	11,256,364	284,858	7,333	12,323,662
Agriculture, Forestry, Fishing and Hunting	15,240	117,674,074	5,635,780	-	123,325,094
Arts, Entertainment and Recreation	304,621	133,498	44,500	22,611	505,230
Construction	656,106,206	981,108,190	3,504,786,902	50,515,443	5,192,516,741
Educational Services	142,854	564,774	4,943,448	15,580	5,666,655
Finance and Insurance	360,831	49,697,598	36,388,735	5,459,029	91,906,194
Health Care and Social Assistance	4,500	4,765,315	4,882,154	-	9,651,968
Information and Cultural Industries	44,921	1,490,738	3,880,706	3,285,240	8,701,605
Management of Companies and Enterprises	1	1	1	1	•
Manufacturing	8,420,854	35,511,404	790,417,490	263,894,839	1,098,244,587
Mining, Quarrying, and Oil and Gas Extraction	4,501,809	1,495,159	24,831,141	1,200	30,829,309
Other Services, Including Maintenance and Repair	1,090,835	114,839,605	431,438,810	95,409,979	642,779,229
Professional, Scientific and Technical Services	7,516,708	363,513,613	539,775,676	21,576,700	932,382,696
Public Administration	24,355,196	3,884,395	1,550,637	3,170	29,793,399
Real Estate, Rental and Leasing	875,001	984,248	3,067,751	22,500	4,949,500
Retail Trade	1,407,217	15,188,531	816,441	14,619	17,426,807
Transportation and Warehousing	32,312,022	40,045,954	52,845,685	1,365,823	126,569,484
Utilities	751,874	175,877,208	48,292,919	15,531	224,937,531
Wholesale Trade	6,836,426	4,276,546	3,402,022	16,405,931	30,920,925
Totals	748,888,230	2,169,544,983	5,475,792,408	458,154,806	8,852,380,427

9.2 Procurement

Tables 20 - 22 provide details on procurement activities for all components of the Muskrat Falls Project. Appendix B contains a list of all contracts awarded to date since Project Sanction.

Table 20 - Contracts Awarded During March 2019

Package #	Package Title	Award Date	Successful Bidder(s)
	No contracts awarded durin	g March 2019	

Table 21 - Request for Proposals Issued

Package #	Package Title	RFP Issue Status	Qualified Bidders
	No requests for prop	osals were issued durin	ng March 2019

Table 22 - Upcoming Request for Proposals (RFP)

Package #	Package Title	Forecasted Bidder Selection	Forecasted RFP Issue
		Start	Date
	There are currently no up	coming requests for proposals.	

Appendix A – Employment by 4-Digit NOC Code

Table 23 - Person Hours of Employment by 4-Digit NOC Code (March 2019)

		Current	t Month			Project t	o Date	
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
0016 - Senior Managers - Goods Production, Utilities, Transportation	101		2.051	2 242	122.150	0.000	70.407	240.662
and Construction	191	-	2,051	2,242	133,159	8,008	78,497	219,663
0111 - Financial Managers	745	-	310	1,055	10,133	-	29,509	39,642
0112 - Human Resources Managers	1,899	80	500	2,478	221,072	21,479	55,055	297,605
0113 - Purchasing Managers	397	-	176	573	18,426	9,932	19,708	48,066
0114 - Other Administrative Services Managers	240	-	238	478	146,805	3,023	40,349	190,177
0124 - Advertising, marketing and public relations managers	-	-	75	75	6,616	-	3,289	9,905
0125 - Other Business Services Managers	-	-	425	425	22,626	137	58,207	80,969
0211 - Engineering Managers	308	375	1,405	2,088	80,468	74,463	164,283	319,213
0213 - Computer and Information Systems Managers	-	160	183	343	11,259	11,785	27,742	50,786
0711 - Construction Managers	2,240	-	4,189	6,429	668,968	12,249	254,275	935,491
1111 - Financial Auditors and Accountants	300	-	297	597	37,846	1,658	26,773	66,276
1114 - Other Financial Officers	687	-	2,345	3,032	15,827	3,073	108,856	127,756
1121 - Human Resources professionals	760	-	1,558	2,318	121,150	13,547	133,571	268,267
1122 - Professional Occupations in Business management consulting	-	-	-	-	-	-	-	-
1123 - Professional occupations in advertising, marketing and public			470	470	24 020	21	F2 720	02.700
relations	-	-	479	479	31,030	31	52,720	83,780
1221 - Administrative Officers	315	661	1,050	2,026	51,935	79,653	58,394	189,982
1223 - Human resources and Recruitment Officers	-	-	154	154	3,058	3,741	25,097	31,895
1225 - Purchasing Agents and Officers	1,997	-	3,853	5,850	175,840	65,509	368,976	610,325
1241 - Administrative Assistants	2,545	160	2,352	5,057	369,041	40,021	177,051	586,113
1311 - Accounting technicians and bookkeepers	480	64	1,249	1,793	105,692	15,472	137,263	258,427
1411 - General Office support workers	2,694	-	149	2,842	323,197	72	1,572	324,840
1431 - Accounting and Related Clerks	-	-	30	30	1,325	-	3,481	4,805
2113 - Geologists, Geochemists and Geophysicists	-	-	-	-	7,849	12,446	15,145	35,439
2131 - Civil Engineers	3,564	472	3,525	7,560	539,717	225,196	340,551	1,105,464
2132 - Mechanical Engineers	2,281	741	5,278	8,300	106,046	65,477	213,754	385,277
2133 - Electrical and Electronics Engineers	701	1,474	6,376	8,551	106,146	213,504	270,900	590,549
2141 - Industrial and Manufacturing Engineers	4,397	-	4,224	8,621	497,872	19,202	313,756	830,829
2144 - Geological Engineers	-	540	-	540	3,647	29,947	7,836	41,429
2147 - Computer Engineers (Except Software Engineers and Designers)	-	-	150	150	4,449	11,503	4,063	20,014
2148 - Other Professional Engineers, n.e.c.	878	607	7,000	8,484	279,634	109,313	414,798	803,745
2151 – Architects	-	-	-	-	320	5,156	-	5,476
2153 - Urban and Land Use Planners	220	-	309	529	14,222	10,793	68,677	93,691
2154 - Land Surveyors	5,139	-	460	5,599	427,767	173	74,461	502,400
2171 - Information Systems Analysts and Consultants	-	136	2,028	2,164	26,152	15,337	93,975	135,464
2221 - Biological Technologists and Technicians	_	-	-	-	-	_	-	-

		Curren	t Month			Project t	o Date	
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
2231 - Civil Engineering Technologists and Technicians	2,661	208	593	3,461	369,805	89,184	77,390	536,379
2232 - Mechanical Engineering Technologists and Technicians	710	3	1,139	1,851	208,915	16,800	26,707	252,422
2234 - Construction Estimators	-	-	226	226	34,034	25,558	28,438	88,029
2241 - Electrical and Electronics Engineering Technologists and	4 0 4 7	460	4.026	6.040	·			•
Technicians	1,047	160	4,836	6,043	42,051	34,667	175,826	252,544
2243 - Industrial Instrument Technicians and Mechanics	362	-	-	362	20,624	-	7,994	28,618
2251 - Architectural Technologists and Technicians	266	7	-	273	5,373	5,295	300	10,967
2253 - Drafting Technologists and Technicians	1,150	154	6	1,310	176,316	77,285	14,655	268,256
2263 - Inspectors in Public and Environmental Health and Occupational	F 734	F40	2 001	0.252	E 40, 404	04.756	100 502	022.020
Health and Safety	5,721	540	3,091	9,352	549,481	94,756	188,593	832,829
2264 - Construction Inspectors	510	-	1,360	1,870	85,768	39,919	215,272	340,959
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	26	26	64	80	1,283	1,426
3234 - Paramedical Occupations	2,586	-	-	2,586	298,235	-	4,188	302,423
4112 - Lawyers and Quebec Notaries	-	-	7	7	686	-	5,151	5,837
4161 - Natural and Applied Science Policy Researchers, Consultants and	658	1 204	2 240	4 202	107 174	105 405	157 777	460 445
Program Officers	058	1,304	2,240	4,202	197,174	105,495	157,777	460,445
4162 - Economists and Economic Policy Researchers and Analysts	-	-	368	368	1,146	-	28,647	29,793
4169 - Other Professional Occupations in Social Science, n.e.c.	255	-	-	255	28,639	-	41	28,680
4312 – Firefighters	2,441	-	304	2,745	47,910	-	3,267	51,177
6313 - Accommodation, travel, tourism and related services supervisors	804		-	804	97,495	-	4,470	101,965
6321 – Chefs	-	-	-	-	1,134	-	-	1,134
6322 – Cooks	1,683	-	-	1,683	187,511	-	3,002	190,513
6541 - Security Guards and Related security service Occupations	9,470	189	-	9,659	589,775	12,553	6,593	608,920
6711 - Food Counter Attendants, Kitchen Helpers and Related support	17,837		_	17 027	1 500 113		4 1 4 2	1 602 255
Occupations	17,837	-	-	17,837	1,598,113	-	4,142	1,602,255
7201 - Contractors and supervisors, machining, metal forming, shaping	6,053			6.053	206 272	124	0 124	214 620
and erecting trades and related occupations	0,053	-	-	6,053	306,372	134	8,134	314,639
7202 - Contractors and Supervisors, Electrical Trades and	2,765		722	2.496	220,769	57	12,088	232,913
Telecommunications Occupations	2,705	-	122	3,486	220,769	57	12,088	232,913
7203 - Contractors and Supervisors, Pipefitting Trades	1,301	-	-	1,301	80,826	-	705	81,531
7204 - Contractors and Supervisors, Carpentry Trades	5,308		1	5,308	435,617	-	22,152	457,769
7205 - Contractors and Supervisors, Other Construction Trades,	6,655		901	7,556	764,627	9,829	37,810	812,266
Installers, Repairers and Servicers	0,055	-	901	7,550	704,027	9,029	37,610	812,200
7233 - Sheet Metal Workers	2,654	-	-	2,654	109,503	-	1,825	111,328
7234 – Boilermakers	656	-	-	656	43,497	-	-	43,497
7236 – Ironworkers	36,197	-	-	36,197	2,096,751	-	4,014	2,100,765
7237 - Welders and Related Machine Operators	4,165	-	-	4,165	271,779	192	2,401	274,372
7242 - Industrial Electricians	29,226	-	1,294	30,520	1,435,492	1,849	34,322	1,471,663
7244 - Electrical Power Line and Cable Workers	210	-	1,563	1,773	698,141	-	19,204	717,345
7251 – Plumbers	385	-	-	385	77,846	-	3,684	81,530
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	9,153	-	-	9,153	347,283	280	619	348,182

		Current	Month			Project t	o Date	
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
7271 – Carpenters	48,959	-	-	48,959	5,143,366	448	73,162	5,216,976
7281 – Bricklayers	29,271	-	-	29,271	464,738	-	8,957	473,695
7293 – Insulators	1,213	-	-	1,213	19,204	-	-	19,204
7294 - Painters and Decorators (except interior decorators)	1,211	-	-	1,211	57,002	-	137	57,139
7301 - Contractors and supervisors, mechanic trades	2,171	-	-	2,171	99,518	-	358	99,875
7302 - Contractors and supervisors, heavy equipment operator crews	2,781	-	-	2,781	354,219	-	5,678	359,896
7311 - Construction Millwrights and Industrial Mechanics	13,308	-	1,310	14,618	183,960	-	28,071	212,031
7312 - Heavy- Duty Equipment Mechanics	4,446	-	4	4,449	687,957	1,033	2,558	691,547
7371 - Crane Operators	7,633	-	-	7,633	666,300	-	11,724	678,025
7372 - Drillers and Blasters - Surface Mining, Quarrying and					210.057	1 160	182	212 100
Construction	-	-	-	-	210,857	1,160	182	212,198
7384 - Other Trades and Related Occupations, n.e.c.	-	-	-	-	29,471	-	139	29,610
7452 - Material Handlers	4,673	-	203	4,876	320,786	48	24,993	345,828
7511 - Transport Truck Drivers	15,271	-	8	15,279	1,901,840	689	27,504	1,930,032
7512 - Bus Drivers, Subway Operators and Other Transit Operators	3,912	-	-	3,912	294,427	-	1,539	295,967
7521 - Heavy Equipment Operators (Except Crane)	15,685	-	2	15,687	3,681,114	1,457	83,015	3,765,586
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	-	-	678	-	-	678
7611 - Construction Trades Helpers and Labourers	6,638	-	13	6,651	1,102,666	189	45,121	1,147,976
7612 - Other Trades Helpers and Labourers	36,148	-	586	36,733	5,491,825	3,807	65,860	5,561,492
8211 - Supervisors, Logging and Forestry	-	-	-	-	58,359	-	700	59,059
8241 - Logging Machinery Operators	-	-	-	-	483,992	-	6,996	490,988
8616 - Logging and Forestry Labourers	-	-	-	-	80,937	60	6,723	87,720
9241 - Power Engineers and power system operators	356	-	1,827	2,183	37,358	-	26,768	64,125
All Occupation Codes	379,536	8,033	75,037	462,605	37,368,615	1,604,715	5,163,448	44,136,777

Table 24 - Residents Hired by 4-Digit NOC Code (March 2019)

		C&A			E&D			PM			Total	
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
4-Digit NOC Code	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
0016 - Senior Managers - Goods Production, Utilities,	13	2	650%	_	_	0%	_	13	0%	13	15	87%
Transportation and Construction	13	2	03070			070		13	070	15	13	07/0
0111 - Financial Managers	1	3	33%	-	-	0%	5	5	100%	6	8	75%
0112 - Human Resources Managers	10	10	100%	1	1	100%	4	4	100%	15	15	100%
0113 - Purchasing Managers	2	2	100%	-	-	0%	4	1	400%	6	3	200%
0114 - Other Administrative Services Managers	1	1	100%	-	-	0%	2	2	100%	3	3	100%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	1	1	100%	1	1	100%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	2	3	67%	2	3	67%
0211 - Engineering Managers	3	3	100%	-	3	0%	9	10	90%	12	16	75%
0213 - Computer and Information Systems Managers	-	-	0%	1	1	100%	2	2	100%	3	3	100%
0711 - Construction Managers	11	12	92%	-	-	0%	15	21	71%	26	33	79%
1111 - Financial Auditors and Accountants	-	1	0%	-	-	0%	3	3	100%	3	4	75%
1114 - Other Financial Officers	3	4	75%	-	-	0%	14	14	100%	17	18	94%
1121 - Human Resources professionals	3	3	100%	-	-	0%	9	9	100%	12	12	100%
1122 - Professional Occupations in Business management			0%			0%			0%			0%
consulting	-	-	U%	_	-	0%	-	-	0%	_	-	U%
1123 - Professional occupations in advertising, marketing	_	_	0%	_	_	0%	4	4	100%	4	4	100%
and public relations			0 70			0 /0			100/0	_	•	100/0
1221 - Administrative Officers	1	2	50%	4	4	100%	5	5	100%	10	11	91%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	2	0%	-	2	0%
1225 - Purchasing Agents and Officers	5	10	50%	-	-	0%	4	21	19%	9	31	29%
1241 - Administrative Assistants	9	13	69%	1	1	100%	13	14	93%	23	28	82%
1311 - Accounting technicians and bookkeepers	1	2	50%	1	1	100%	11	11	100%	13	14	93%
1411 - General Office support workers	11	11	100%	-	-	0%	1	1	100%	12	12	100%
1431 - Accounting and Related Clerks	3	-	0%	-	-	0%	10	1	1000%	13	1	1300%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	11	15	73%	1	4	25%	15	22	68%	27	41	66%
2132 - Mechanical Engineers	5	11	45%	1	4	25%	21	28	75%	27	43	63%
2133 - Electrical and Electronics Engineers	1	3	33%	1	10	10%	25	40	63%	27	53	51%
2141 - Industrial and Manufacturing Engineers	57	19	300%	-	-	0%	12	21	57%	69	40	173%
2144 - Geological Engineers	-	-	0%	-	1	0%	-	-	0%	-	1	0%
2147 - Computer Engineers (Except Software Engineers and Designers)	-	-	0%	-	-	0%	1	1	100%	1	1	100%
2148 - Other Professional Engineers, n.e.c.	3	5	60%	1	5	20%	37	43	86%	41	53	77%

		C&A			E&D			PM			Total	
		Total	Res as %									
4-Digit NOC Code	Res	Persons	of Total									
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	3	3	100%	3	4	75%
2154 - Land Surveyors	20	20	100%	-	-	0%	2	2	100%	22	22	100%
2171 - Information Systems Analysts and Consultants	-	-	0%	1	1	100%	13	14	93%	14	15	93%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	14	16	88%	1	2	50%	6	7	86%	21	25	84%
2232 - Mechanical Engineering Technologists and Technicians	3	3	100%	-	1	0%	5	6	83%	8	10	80%
2234 - Construction Estimators	_	_	0%	_	_	0%	1	1	100%	1	1	100%
2241 - Electrical and Electronics Engineering Technologists			076	_		070	_	1	100/6	_	•	100/6
and Technicians	4	5	80%	1	1	100%	36	39	92%	41	45	91%
2243 - Industrial Instrument Technicians and Mechanics	1	2	50%	-	-	0%	-	-	0%	1	2	50%
2251 - Architectural Technologists and Technicians	1	1	100%	1	1	100%	-	-	0%	2	2	100%
2253 - Drafting Technologists and Technicians	2	4	50%	1	1	100%	1	1	100%	4	6	67%
2263 - Inspectors in Public and Environmental Health and	20	24	83%	5	5	100%	16	18	89%	41	47	87%
Occupational Health and Safety					J							
2264 - Construction Inspectors	2	2	100%	-	-	0%	5	7	71%	7	9	78%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	3	3	100%	3	3	100%
3234 - Paramedical Occupations	14	15	93%	-	-	0%	-	-	0%	14	15	93%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	2	2	100%	2	2	100%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	1	4	25%	1	3	33%	13	13	100%	15	20	75%
4162 - Economists and Economic Policy Researchers and Analysts	2	-	0%	-	-	0%	14	2	700%	16	2	800%
4169 - Other Professional Occupations in Social Science,		_								_	_	
n.e.c.	1	1	100%	-	-	0%	-	-	0%	1	1	100%
4312 - Firefighters	12	12	100%	-	-	0%	1	1	100%	13	13	100%
6313 - Accommodation, travel, tourism and related	1	4	25%	_	_	0%	_	_	0%	1	4	25%
services supervisors	_	7								_	•	
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	8	8	100%	-	-	0%	-	-	0%	8	8	100%
6541 - Security Guards and Related security service Occupations	6	54	11%	1	1	100%	9	-	0%	16	55	29%
6711 - Food Counter Attendants, Kitchen Helpers and												
Related support Occupations	107	107	100%	-	-	0%	-	-	0%	107	107	100%
7201 - Contractors and supervisors, machining, metal												
forming, shaping and erecting trades and related	18	25	72%	-	-	0%	1	-	0%	19	25	76%
occupations												

		C&A			E&D			PM			Total	
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
4-Digit NOC Code	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
7202 - Contractors and Supervisors, Electrical Trades and	16	17	94%	_	_	0%	3	4	75%	19	21	90%
Telecommunications Occupations	10	17	34/0	_	-	0/6	3	4	73/0	19	21	30/6
7203 - Contractors and Supervisors, Pipefitting Trades	6	6	100%	-	-	0%	-	-	0%	6	6	100%
7204 - Contractors and Supervisors, Carpentry Trades	23	25	92%	-	-	0%	-	-	0%	23	25	92%
7205 - Contractors and Supervisors, Other Construction	21	25	84%	_	_	0%	8	8	100%	29	33	88%
Trades, Installers, Repairers and Servicers												
7233 - Sheet Metal Workers	5	13	38%	-	-	0%	-	-	0%	5	13	38%
7234 - Boilermakers	3	3	100%	-	-	0%	-	-	0%	3	3	100%
7236 - Ironworkers	155	156	99%	-	-	0%	-	-	0%	155	156	99%
7237 - Welders and Related Machine Operators	19	20	95%	-	-	0%	-	-	0%	19	20	95%
7242 - Industrial Electricians	159	162	98%	-	-	0%	15	16	94%	174	178	98%
7244 - Electrical Power Line and Cable Workers	1	1	100%	-	-	0%	26	26	100%	27	27	100%
7251 - Plumbers	2	2	100%	-	-	0%	-	-	0%	2	2	100%
7252 - Steamfitters, Pipefitters and Sprinkler System	40	42	95%			0%			0%	40	42	95%
Installers	40	42	95%	-	-	0%	-	-	U%	40	42	95%
7271 - Carpenters	247	250	99%	-	-	0%	-	-	0%	247	250	99%
7281 - Bricklayers	140	141	99%	-	-	0%	-	-	0%	140	141	99%
7293 - Insulators	6	6	100%	-	-	0%	-	-	0%	6	6	100%
7294 - Painters and Decorators (except interior	11	11	100%			0%			0%	11	11	100%
decorators)	11	11	100%	-	-	0%	-	-	U%	11	11	100%
7301 - Contractors and supervisors, mechanic trades	11	11	100%	-	-	0%	-	-	0%	11	11	100%
7302 - Contractors and supervisors, heavy equipment	12	12	100%			0%			0%	12	12	100%
operator crews	12	12	100%	_	-	0/6	_	-	0/0	12	12	100%
7311 - Construction Millwrights and Industrial Mechanics	75	77	97%	-	-	0%	10	10	100%	85	87	98%
7312 - Heavy- Duty Equipment Mechanics	18	19	95%	-	-	0%	1	1	100%	19	20	95%
7371 - Crane Operators	31	31	100%	-	-	0%	-	-	0%	31	31	100%
7372 - Drillers and Blasters - Surface Mining, Quarrying	_	_	0%	_	_	0%	_	_	0%	_		0%
and Construction		_	076	_	_	070	_	_	076	_	_	076
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	19	19	100%	-	-	0%	2	2	100%	21	21	100%
7511 - Transport Truck Drivers	64	65	98%	-	-	0%	1	1	100%	65	66	98%
7512 - Bus Drivers, Subway Operators and Other Transit	26	26	100%	_	_	0%	_	_	0%	26	26	100%
Operators		20		_	-			_	U /0	20		
7521 - Heavy Equipment Operators (Except Crane)	76	76	100%	-	-	0%	1	1	100%	77	77	100%
7533 - Boat and Cable Ferry Operators and Related	_	_	0%	_	_	0%	_	_	0%	-	_	0%
Occupations												
7611 - Construction Trades Helpers and Labourers	28	28	100%	-	-	0%	2	2	100%	30	30	100%
7612 - Other Trades Helpers and Labourers	167	167	100%	-	-	0%	10	10	100%	177	177	100%

	C&A			E&D				PM		Total		
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
4-Digit NOC Code	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators	2	2	100%	-	-	0%	15	15	100%	17	17	100%
Totals	1,774	1,853	96%	24	51	47%	454	517	88%	2,252	2,421	93%

Table 25 - Female Workers Hired by 4-Digit NOC Code (March 2019)

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
		Total	as % of		Total	as % of	Female	Total	as % of		Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
0016 - Senior Managers - Goods Production, Utilities,	1	2	50%	-	-	0%	1	13	8%	2	15	13%
Transportation and Construction	1	2	220/			00/	,	_	400/	,		200/
0111 - Financial Managers	1	3	33%	_	-	0%	2	5	40%	3	8	38%
0112 - Human Resources Managers	1	10	10%	1	1	100%	2	4	50%	4	15	27%
0113 - Purchasing Managers		2	0%	-	-	0%	-	1	0%	-	3	0%
0114 - Other Administrative Services Managers	1	1	100%	-	-	0%	1	2	50%	2	3	67%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	1	1	100%	1	1	100%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	2	3	67%	2	3	67%
0211 - Engineering Managers	1	3	33%	-	3	0%	1	10	10%	2	16	13%
0213 - Computer and Information Systems Managers	-	-	0%	-	1	0%	-	2	0%	-	3	0%
0711 - Construction Managers	-	12	0%	-	-	0%	-	21	0%	-	33	0%
1111 - Financial Auditors and Accountants	-	1	0%	-	-	0%	-	3	0%	-	4	0%
1114 - Other Financial Officers	3	4	75%	_	-	0%	8	14	57%	11	18	61%
1121 - Human Resources professionals	1	3	33%	_	-	0%	3	9	33%	4	12	33%
1122 - Professional Occupations in Business management			0%			0%			0%			0%
consulting	_	-	0%	-	-	0%	_	-	U%	-	-	0%
1123 - Professional occupations in advertising, marketing	_	_	0%	_	_	0%	3	4	75%	3	4	75%
and public relations			0 70			0,0			7370			73/0
1221 - Administrative Officers	2	2	100%	4	4	100%	4	5	80%	10	11	91%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	1	2	50%	1	2	50%
1225 - Purchasing Agents and Officers	5	10	50%	-	-	0%	8	21	38%	13	31	42%
1241 - Administrative Assistants	10	13	77%	1	1	100%	11	14	79%	22	28	79%
1311 - Accounting technicians and bookkeepers	1	2	50%	-	1	0%	11	11	100%	12	14	86%
1411 - General Office support workers	10	11	91%	-	-	0%	1	1	100%	11	12	92%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	1	1	100%	1	1	100%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	-	15	0%	-	4	0%	7	22	32%	7	41	17%
2132 - Mechanical Engineers	3	11	27%	1	4	25%	7	28	25%	11	43	26%
2133 - Electrical and Electronics Engineers	-	3	0%	-	10	0%	8	40	20%	8	53	15%
2141 - Industrial and Manufacturing Engineers	-	19	0%	-	-	0%	3	21	14%	3	40	8%
2144 - Geological Engineers	-	-	0%	-	1	0%	-	-	0%	-	1	0%
2147 - Computer Engineers (Except Software Engineers and Designers)	-	-	0%	-	-	0%	1	1	100%	1	1	100%
2148 - Other Professional Engineers, n.e.c.	1	5	20%	1	5	20%	5	43	12%	7	53	13%
2140 - Other Fluiessional Engineers, n.e.c.	1	3	20/0		<u> </u>	20/0	,	43	12/0			13/0

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
A Pitta Noc calls		Total	as % of	e a constant	Total	as % of	Female	Total	as % of	Familia.	Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	3	0%	-	4	0%
2154 - Land Surveyors	-	20	0%	-	-	0%	-	2	0%	-	22	0%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	1	0%	3	14	21%	3	15	20%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	4	16	25%	-	2	0%	-	7	0%	4	25	16%
2232 - Mechanical Engineering Technologists and	_	3	0%	_	1	0%	2	6	33%	2	10	20%
Technicians		3	070	_	1	070		U	33/0		10	20/8
2234 - Construction Estimators	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2241 - Electrical and Electronics Engineering Technologists	_	5	0%	_	1	0%	2	39	5%	2	45	4%
and Technicians					-		_	33		_		
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	1	0%	-	1	0%	-	-	0%	-	2	0%
2253 - Drafting Technologists and Technicians	2	4	50%	-	1	0%	1	1	100%	3	6	50%
2263 - Inspectors in Public and Environmental Health and	7	24	29%	_	5	0%	5	18	28%	12	47	26%
Occupational Health and Safety	,	24	23/0		5			10	2070	12	٦,	2070
2264 - Construction Inspectors	-	2	0%	-	-	0%	-	7	0%	-	9	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	-	3	0%	-	3	0%
3234 - Paramedical Occupations	5	15	33%	-	-	0%	-	-	0%	5	15	33%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	1	2	50%	1	2	50%
4161 - Natural and Applied Science Policy Researchers,		4	0%		3	0%	7	13	54%	7	20	35%
Consultants and Program Officers	_	4	U/0	_	3	0%	′	15	34%	·	20	33%
4162 - Economists and Economic Policy Researchers and	_	_	0%	_		0%	1	2	50%	1	2	50%
Analysts			070	_		070	1	2	30/6	_		3076
4169 - Other Professional Occupations in Social Science,	1	1	100%	_	_	0%	_	_	0%	1	1	100%
n.e.c.	-					• • • • • • • • • • • • • • • • • • • •				_		10070
4312 - Firefighters	1	12	8%	-	-	0%	-	1	0%	1	13	8%
6313 - Accommodation, travel, tourism and related	_	4	0%	_	_	0%	_	_	0%	_	4	0%
services supervisors		7									•	
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	2	8	25%	-	-	0%	-	-	0%	2	8	25%
6541 - Security Guards and Related security service	7	54	13%	_	1	0%	_	_	0%	7	55	13%
Occupations	'	54	19/0		_	5 /0			3 70	l	55	13/0
6711 - Food Counter Attendants, Kitchen Helpers and	55	107	51%	_	_	0%	_	-	0%	55	107	51%
Related support Occupations		=='										

			E&D			PM		Total				
			Females			Females			Females			Females
		Total	as % of		Total	as % of	Female	Total	as % of		Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
7201 - Contractors and supervisors, machining, metal												
forming, shaping and erecting trades and related	-	25	0%	-	-	0%	-	-	0%	-	25	0%
occupations												
7202 - Contractors and Supervisors, Electrical Trades and	_	17	0%	_	_	0%	_	4	0%	_	21	0%
Telecommunications Occupations												
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	25	0%	-	-	0%	-	-	0%	-	25	0%
7205 - Contractors and Supervisors, Other Construction	_	25	0%	_	_	0%	_	8	0%	_	33	0%
Trades, Installers, Repairers and Servicers								_				
7233 - Sheet Metal Workers	1	13	8%	-	-	0%	-	-	0%	1	13	8%
7234 - Boilermakers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7236 - Ironworkers	5	156	3%	-	-	0%	-	-	0%	5	156	3%
7237 - Welders and Related Machine Operators	-	20	0%	-	-	0%	-	-	0%	-	20	0%
7242 - Industrial Electricians	4	162	2%	-	-	0%	1	16	6%	5	178	3%
7244 - Electrical Power Line and Cable Workers	-	1	0%	-	-	0%	-	26	0%	-	27	0%
7251 - Plumbers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7252 - Steamfitters, Pipefitters and Sprinkler System	_	42	0%			0%		_	0%		42	0%
Installers	_	42	0/0	_	-	0/6	_	-	U/0	_	42	0/0
7271 - Carpenters	9	250	4%	-	-	0%	-	-	0%	9	250	4%
7281 - Bricklayers	13	141	9%	-	-	0%	-	-	0%	13	141	9%
7293 - Insulators	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7294 - Painters and Decorators (except interior		11	0%			0%			0%		11	0%
decorators)	_	11	U70	-	-	0%	_	-	U%	-	11	0%
7301 - Contractors and supervisors, mechanic trades	-	11	0%	-	-	0%	-	-	0%	-	11	0%
7302 - Contractors and supervisors, heavy equipment	_	12	0%		_	0%	_	_	0%	_	12	0%
operator crews		12	070		_	070		_	070	_	12	070
7311 - Construction Millwrights and Industrial Mechanics	5	77	6%	-	-	0%	1	10	10%	6	87	7%
7312 - Heavy- Duty Equipment Mechanics	-	19	0%	-	-	0%	-	1	0%	-	20	0%
7371 - Crane Operators	2	31	6%	-	-	0%	-	-	0%	2	31	6%
7372 - Drillers and Blasters - Surface Mining, Quarrying		_	0%			0%			0%			0%
and Construction	_	-	0/0	_	-	0/6	_	-	U/0	_	-	0/6
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	1	19	5%	-	-	0%	1	2	50%	2	21	10%
7511 - Transport Truck Drivers	1	65	2%	-	-	0%	-	1	0%	1	66	2%
7512 - Bus Drivers, Subway Operators and Other Transit		26	0%			0%			0%		26	0%
Operators	_	20	U%	_	-	U%] -	-	U%	_	20	U%
7521 - Heavy Equipment Operators (Except Crane)	3	76	4%	-	-	0%		1	0%	3	77	4%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Females	Total Persons	Females as % of Total	Females	Total Persons	Females as % of Total	Female s	Total Persons	Females as % of Total	Females	Total Persons	Females as % of Total
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	2	28	7%	-	-	0%	-	2	0%	2	30	7%
7612 - Other Trades Helpers and Labourers	25	167	15%	-	-	0%	1	10	10%	26	177	15%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators	-	2	0%	-	-	0%	-	15	0%	-	17	0%
Totals	196	1,853	11%	8	51	16%	118	517	23%	322	2,421	13%

Table 26 - Aboriginal Workers by 4-Digit NOC Code (March 2019)

	C&A			E&D			PM			Total		
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
0016 - Senior Managers - Goods Production, Utilities,	_	2	0%	_	_	0%	_	13	0%	-	15	0%
Transportation and Construction											_	• • • •
0111 - Financial Managers	-	3	0%	-	-	0%	-	5	0%	-	8	0%
0112 - Human Resources Managers	3	10	30%	-	1	0%	-	4	0%	3	15	20%
0113 - Purchasing Managers	-	2	0%	-	-	0%	-	1	0%	-	3	0%
0114 - Other Administrative Services Managers	-	1	0%	-	-	0%	-	2	0%	-	3	0%
0124 - Advertising, marketing and public relations	-	-	0%	-	-	0%	-	1	0%	-	1	0%
managers			0%			0%		3	0%		3	0%
0125 - Other Business Services Managers	_	3	0%	-	3	0% 0%	_	10	0%	-	16	0%
0211 - Engineering Managers	_	3	0%	-	1	0%	_	2	0%	-	3	0%
0213 - Computer and Information Systems Managers	-	- 12	0%	-	1	0% 0%	-	21	0%	-	33	0%
0711 - Construction Managers	-			-	-		_			-		
1111 - Financial Auditors and Accountants	-	1	0%	-	-	0%	-	3	0%	-	4	0%
1114 - Other Financial Officers	-	4	0%	-	-	0%	-	14	0%	-	18	0%
1121 - Human Resources professionals	-	3	0%	-	-	0%	3	9	33%	3	12	25%
1122 - Professional Occupations in Business management consulting	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1123 - Professional occupations in advertising, marketing and public relations	-	-	0%	-	-	0%	-	4	0%	ı	4	0%
1221 - Administrative Officers	1	2	50%	-	4	0%	-	5	0%	1	11	9%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	1	2	50%	1	2	50%
1225 - Purchasing Agents and Officers	1	10	10%	-	-	0%	-	21	0%	1	31	3%
1241 - Administrative Assistants	1	13	8%	-	1	0%	-	14	0%	1	28	4%
1311 - Accounting technicians and bookkeepers	-	2	0%	-	1	0%	-	11	0%	-	14	0%
1411 - General Office support workers	3	11	27%	-	-	0%	-	1	0%	3	12	25%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	1	15	7%	-	4	0%	-	22	0%	1	41	2%
2132 - Mechanical Engineers	2	11	18%	1	4	25%	-	28	0%	3	43	7%
2133 - Electrical and Electronics Engineers	-	3	0%	-	10	0%	-	40	0%	-	53	0%
2141 - Industrial and Manufacturing Engineers	-	19	0%	-	-	0%	1	21	5%	1	40	3%
2144 - Geological Engineers	-	-	0%	-	1	0%	-	-	0%	-	1	0%

	C&A				E&D			PM			Total	
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
2147 - Computer Engineers (Except Software Engineers	_	_	0%	-	-	0%	_	1	0%	-	1	0%
and Designers)												
2148 - Other Professional Engineers, n.e.c.	-	5	0%	-	5	0%	-	43	0%	-	53	0%
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	3	0%	-	4	0%
2154 - Land Surveyors	3	20	15%	-	-	0%	-	2	0%	3	22	14%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	1	0%	1	14	7%	1	15	7%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	-	16	0%	-	2	0%	1	7	14%	1	25	4%
2232 - Mechanical Engineering Technologists and Technicians	1	3	33%	-	1	0%	-	6	0%	1	10	10%
2234 - Construction Estimators	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2241 - Electrical and Electronics Engineering Technologists and Technicians	-	5	0%	-	1	0%	1	39	3%	1	45	2%
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	1	0%	-	1	0%	-	-	0%	-	2	0%
2253 - Drafting Technologists and Technicians	-	4	0%	-	1	0%	-	1	0%	-	6	0%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	-	24	0%	-	5	0%	1	18	6%	1	47	2%
2264 - Construction Inspectors	-	2	0%	-	-	0%	-	7	0%	-	9	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	-	3	0%	-	3	0%
3234 - Paramedical Occupations	-	15	0%	-	-	0%	-	-	0%	-	15	0%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	-	2	0%	-	2	0%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	1	4	25%	-	3	0%	-	13	0%	1	20	5%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	-	2	0%	-	2	0%
4169 - Other Professional Occupations in Social Science, n.e.c.	1	1	100%	-	-	0%	-	-	0%	1	1	100%
4312 - Firefighters	-	12	0%	-	-	0%	-	1	0%	-	13	0%
6313 - Accommodation, travel, tourism and related services supervisors	-	4	0%	-	-	0%	-	-	0%	-	4	0%
6321 - Chefs	_	_	0%	_	_	0%	_	_	0%	_	_	0%
6322 - Cooks	1	8	13%	_	_	0%	_	_	0%	1	8	13%

	C&A			E&D			PM			Total		
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
6541 - Security Guards and Related security service	5	54	9%	_	1	0%	_	_	0%	5	55	9%
Occupations 6711 - Food Counter Attendants, Kitchen Helpers and Related support Occupations 7201 - Contractors and supervisors, machining, metal	39	107	36%	-	-	0%	-	-	0%	39	107	36%
forming, shaping and erecting trades and related occupations	1	25	4%	-	-	0%	-	-	0%	1	25	4%
7202 - Contractors and Supervisors, Electrical Trades and Telecommunications Occupations	1	17	6%	-	-	0%	-	4	0%	1	21	5%
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	1	25	4%	-	-	0%	-	-	0%	1	25	4%
7205 - Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers	1	25	4%	-	-	0%	-	8	0%	1	33	3%
7233 - Sheet Metal Workers	-	13	0%	-	-	0%	-	-	0%	-	13	0%
7234 - Boilermakers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7236 - Ironworkers	3	156	2%	-	-	0%	-	-	0%	3	156	2%
7237 - Welders and Related Machine Operators	1	20	5%	-	-	0%	-	-	0%	1	20	5%
7242 - Industrial Electricians	11	162	7%	-	-	0%	-	16	0%	11	178	6%
7244 - Electrical Power Line and Cable Workers	-	1	0%	-	-	0%	-	26	0%	-	27	0%
7251 - Plumbers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	6	42	14%	-	-	0%	-	-	0%	6	42	14%
7271 - Carpenters	18	250	7%	-	-	0%	-	-	0%	18	250	7%
7281 - Bricklayers	9	141	6%	-	-	0%	-	-	0%	9	141	6%
7293 - Insulators	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7294 - Painters and Decorators (except interior decorators)	1	11	9%	-	-	0%	-	-	0%	1	11	9%
7301 - Contractors and supervisors, mechanic trades	-	11	0%	-	-	0%	-	-	0%	-	11	0%
7302 - Contractors and supervisors, heavy equipment operator crews	-	12	0%	-	-	0%	-	-	0%	-	12	0%
7311 - Construction Millwrights and Industrial Mechanics	2	77	3%	-	-	0%	-	10	0%	2	87	2%
7312 - Heavy- Duty Equipment Mechanics	2	19	11%	-	-	0%	-	1	0%	2	20	10%
7371 - Crane Operators	2	31	6%	-	-	0%	-	-	0%	2	31	6%
7372 - Drillers and Blasters - Surface Mining, Quarrying and Construction	-	-	0%	-	-	0%	-	-	0%	,	-	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	1	19	5%	-	-	0%	-	2	0%	1	21	5%
7511 - Transport Truck Drivers	14	65	22%	-	-	0%	-	1	0%	14	66	21%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	5	26	19%	1	-	0%	1	-	0%	5	26	19%
7521 - Heavy Equipment Operators (Except Crane)	14	76	18%	-	-	0%	-	1	0%	14	77	18%
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	10	28	36%	-	-	0%	-	2	0%	10	30	33%
7612 - Other Trades Helpers and Labourers	77	167	46%	-	-	0%	-	10	0%	77	177	44%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	•	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators	ı	2	0%	ı	-	0%	-	15	0%	1	17	0%
Totals	243	1,853	13%	1	51	2%	9	517	2%	253	2,421	10%

Table 27 - Labrador Residents by 4-Digit NOC Code (March 2019)

	C&A			E&D			PM			Total		
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
0016 - Senior Managers - Goods Production, Utilities,	_	2	0%	_	_	0%	3	13	23%	3	15	20%
Transportation and Construction			-,-									
0111 - Financial Managers	-	3	0%	-	-	0%	-	5	0%	-	8	0%
0112 - Human Resources Managers	3	10	30%	-	1	0%	1	4	25%	4	15	27%
0113 - Purchasing Managers	-	2	0%	-	-	0%	-	1	0%	-	3	0%
0114 - Other Administrative Services Managers	-	1	0%	-	-	0%	1	2	50%	1	3	33%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	-	1	0%	-	1	0%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	-	3	0%	-	3	0%
0211 - Engineering Managers	-	3	0%	-	3	0%	1	10	10%	1	16	6%
0213 - Computer and Information Systems Managers	-	-	0%	-	1	0%	-	2	0%	-	3	0%
0711 - Construction Managers	-	12	0%	-	-	0%	1	21	5%	1	33	3%
1111 - Financial Auditors and Accountants	-	1	0%	-	-	0%	-	3	0%	-	4	0%
1114 - Other Financial Officers	-	4	0%	-	-	0%	-	14	0%	-	18	0%
1121 - Human Resources professionals	1	3	33%	-	-	0%	3	9	33%	4	12	33%
1122 - Professional Occupations in Business management consulting	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1123 - Professional occupations in advertising, marketing and public relations	-	-	0%	-	-	0%	-	4	0%	-	4	0%
1221 - Administrative Officers	1	2	50%	-	4	0%	2	5	40%	3	11	27%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	2	0%	-	2	0%
1225 - Purchasing Agents and Officers	1	10	10%	-	-	0%	-	21	0%	1	31	3%
1241 - Administrative Assistants	1	13	8%	-	1	0%	1	14	7%	2	28	7%
1311 - Accounting technicians and bookkeepers	-	2	0%	-	1	0%	-	11	0%	-	14	0%
1411 - General Office support workers	8	11	73%	-	-	0%	-	1	0%	8	12	67%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	-	15	0%	-	4	0%	1	22	5%	1	41	2%
2132 - Mechanical Engineers	-	11	0%	1	4	25%	1	28	4%	2	43	5%
2133 - Electrical and Electronics Engineers	-	3	0%	-	10	0%	3	40	8%	3	53	6%
2141 - Industrial and Manufacturing Engineers	1	19	5%	-	-	0%	1	21	5%	2	40	5%
2144 - Geological Engineers	-	-	0%	-	1	0%	-	-	0%	-	1	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
2147 - Computer Engineers (Except Software Engineers			0%			0%	_	1	0%	_	1	0%
and Designers)	-	-	U%	_	-	0%	_	1	U/0	_	-	U%
2148 - Other Professional Engineers, n.e.c.	-	5	0%	-	5	0%	2	43	5%	2	53	4%
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	1	3	33%	1	4	25%
2154 - Land Surveyors	11	20	55%	-	-	0%	-	2	0%	11	22	50%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	1	0%	1	14	7%	1	15	7%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	1	16	6%	-	2	0%	1	7	14%	2	25	8%
2232 - Mechanical Engineering Technologists and Technicians	1	3	33%	-	1	0%	1	6	17%	2	10	20%
2234 - Construction Estimators	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2241 - Electrical and Electronics Engineering Technologists and Technicians	-	5	0%	-	1	0%	13	39	33%	13	45	29%
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	1	0%	-	1	0%	-	-	0%	-	2	0%
2253 - Drafting Technologists and Technicians	1	4	25%	-	1	0%	-	1	0%	1	6	17%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	1	24	4%	1	5	20%	3	18	17%	5	47	11%
2264 - Construction Inspectors	-	2	0%	-	-	0%	-	7	0%	-	9	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	3	3	100%	3	3	100%
3234 - Paramedical Occupations	7	15	47%	-	-	0%	-	-	0%	7	15	47%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	-	2	0%	-	2	0%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	1	4	25%	-	3	0%	1	13	8%	2	20	10%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	-	2	0%	-	2	0%
4169 - Other Professional Occupations in Social Science,	1	1	100%	-	-	0%	-	-	0%	1	1	100%
n.e.c.		12	00/			00/	1	1	1000/	4	12	00/
4312 - Firefighters	_	12	0%	-	-	0%	1	1	100%	1	13	8%
6313 - Accommodation, travel, tourism and related services supervisors	-	4	0%	-	-	0%	-	-	0%	-	4	0%
6321 - Chefs	_	_	0%	_	_	0%	_	_	0%	_	_	0%
6322 - Cooks	2	8	25%	_	_	0%	_	_	0%	2	8	25%

	C&A				E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
6541 - Security Guards and Related security service	29	54	54%	1	1	100%	-	_	0%	30	55	55%
Occupations 6711 - Food Counter Attendants, Kitchen Helpers and Related support Occupations	72	107	67%	-	-	0%	-	-	0%	72	107	67%
7201 - Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	1	25	4%	-	-	0%	-	-	0%	1	25	4%
7202 - Contractors and Supervisors, Electrical Trades and Telecommunications Occupations	-	17	0%	-	-	0%	-	4	0%	-	21	0%
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	25	0%	-	-	0%	-	-	0%	-	25	0%
7205 - Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers	3	25	12%	-	-	0%	3	8	38%	6	33	18%
7233 - Sheet Metal Workers	6	13	46%	-	-	0%	-	-	0%	6	13	46%
7234 - Boilermakers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7236 - Ironworkers	16	156	10%	-	-	0%	-	-	0%	16	156	10%
7237 - Welders and Related Machine Operators	2	20	10%	-	-	0%	-	-	0%	2	20	10%
7242 - Industrial Electricians	36	162	22%	-	-	0%	9	16	56%	45	178	25%
7244 - Electrical Power Line and Cable Workers	-	1	0%	-	-	0%	14	26	54%	14	27	52%
7251 - Plumbers	1	2	50%	-	-	0%	-	-	0%	1	2	50%
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	5	42	12%	-	-	0%	-	-	0%	5	42	12%
7271 - Carpenters	28	250	11%	-	-	0%	-	-	0%	28	250	11%
7281 - Bricklayers	8	141	6%	-	-	0%	-	-	0%	8	141	6%
7293 - Insulators	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7294 - Painters and Decorators (except interior decorators)	1	11	9%	-	-	0%	-	-	0%	1	11	9%
7301 - Contractors and supervisors, mechanic trades	2	11	18%	-	-	0%	-	-	0%	2	11	18%
7302 - Contractors and supervisors, heavy equipment operator crews	-	12	0%	-	-	0%	-	-	0%	-	12	0%
7311 - Construction Millwrights and Industrial Mechanics	8	77	10%	-	-	0%	-	10	0%	8	87	9%
7312 - Heavy- Duty Equipment Mechanics	5	19	26%	-	-	0%	1	1	100%	6	20	30%
7371 - Crane Operators	7	31	23%	-	-	0%	-	-	0%	7	31	23%
7372 - Drillers and Blasters - Surface Mining, Quarrying and Construction	-	-	0%	-	-	0%	-	-	0%	-	-	0%

	C&A			E&D			PM			Total		
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	9	19	47%	-	-	0%	1	2	50%	10	21	48%
7511 - Transport Truck Drivers	31	65	48%	-	-	0%	1	1	100%	32	66	48%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	21	26	81%	-	-	0%	-	-	0%	21	26	81%
7521 - Heavy Equipment Operators (Except Crane)	29	76	38%	-	-	0%	1	1	100%	30	77	39%
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	18	28	64%	-	-	0%	2	2	100%	20	30	67%
7612 - Other Trades Helpers and Labourers	126	167	75%	-	-	0%	8	10	80%	134	177	76%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators	-	2	0%	-	-	0%	4	15	27%	4	17	24%
Totals	506	1,853	27%	3	51	6%	90	517	17%	599	2,421	25%

Table 28 - Labrador Residents Working in Labrador by 4-Digit NOC Code (March 2019)

	C&A				E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
0016 - Senior Managers - Goods Production, Utilities,		1	0%	_	_	0%	3	4	75%	3	5	60%
Transportation and Construction		1	•,-			076		4			,	
0111 - Financial Managers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
0112 - Human Resources Managers	2	8	25%	-	-	0%	1	1	100%	3	9	33%
0113 - Purchasing Managers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
0114 - Other Administrative Services Managers	-	1	0%	-	-	0%	1	1	100%	1	2	50%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	-	1	0%	-	1	0%
0211 - Engineering Managers	-	1	0%	-	-	0%	1	1	100%	1	2	50%
0213 - Computer and Information Systems Managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0711 - Construction Managers	-	9	0%	-	-	0%	1	17	6%	1	26	4%
1111 - Financial Auditors and Accountants	-	1	0%	-	-	0%	-	-	0%	-	1	0%
1114 - Other Financial Officers	-	1	0%	-	-	0%	-	3	0%	-	4	0%
1121 - Human Resources professionals	1	2	50%	-	-	0%	3	3	100%	4	5	80%
1122 - Professional Occupations in Business management consulting	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1123 - Professional occupations in advertising, marketing and public relations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1221 - Administrative Officers	1	1	100%	-	-	0%	2	2	100%	3	3	100%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1225 - Purchasing Agents and Officers	1	7	14%	-	-	0%	-	9	0%	1	16	6%
1241 - Administrative Assistants	1	11	9%	-	-	0%	1	2	50%	2	13	15%
1311 - Accounting technicians and bookkeepers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
1411 - General Office support workers	8	11	73%	-	-	0%	-	-	0%	8	11	73%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	-	12	0%	-	-	0%	1	8	13%	1	20	5%
2132 - Mechanical Engineers	-	10	0%	-	-	0%	1	12	8%	1	22	5%
2133 - Electrical and Electronics Engineers	-	3	0%	-	-	0%	3	13	23%	3	16	19%
2141 - Industrial and Manufacturing Engineers	1	18	6%	-	-	0%	1	10	10%	2	28	7%
2144 - Geological Engineers	-	-	0%	-	-	0%	-	-	0%	-	-	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
2147 - Computer Engineers (Except Software Engineers			0%			0%			0%			0%
and Designers)	-	-	U%	-	-	U%	_	-	0%	-	-	0%
2148 - Other Professional Engineers, n.e.c.	-	5	0%	-	-	0%	2	10	20%	2	15	13%
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	1	1	100%	1	2	50%
2154 - Land Surveyors	11	20	55%	-	-	0%	-	2	0%	11	22	50%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	-	0%	1	4	25%	1	4	25%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	1	16	6%	-	-	0%	1	1	100%	2	17	12%
2232 - Mechanical Engineering Technologists and Technicians	1	3	33%	-	-	0%	1	3	33%	2	6	33%
2234 - Construction Estimators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2241 - Electrical and Electronics Engineering Technologists and Technicians	-	5	0%	-	-	0%	13	17	76%	13	22	59%
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	_	2	0%
2251 - Architectural Technologists and Technicians	-	1	0%	-	-	0%	-	-	0%	-	1	0%
2253 - Drafting Technologists and Technicians	1	4	25%	-	-	0%	-	_	0%	1	4	25%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	1	22	5%	1	3	33%	3	9	33%	5	34	15%
2264 - Construction Inspectors	_	2	0%	_	_	0%	_	4	0%	_	6	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	_	-	0%	_		0%	3	3	100%	3	3	100%
3234 - Paramedical Occupations	7	15	47%	_	_	0%	-	-	0%	7	15	47%
4112 - Lawyers and Quebec Notaries	,	-	0%	_	_	0%	_	_	0%	_	-	0%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	-	2	0%	-	1	0%	1	3	33%	1	6	17%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	-	-	0%	-	-	0%
4169 - Other Professional Occupations in Social Science,	1	1	100%			0%			0%	1	1	100%
n.e.c.	1	1	100%	_	-	U%	_	-	U%		1	100%
4312 - Firefighters	-	10	0%	-	-	0%	1	1	100%	1	11	9%
6313 - Accommodation, travel, tourism and related	_	4	0%	_	_	0%	_	_	0%	_	4	0%
services supervisors	_	4	0/0	_	-	U /0	_	-	0/0	_	7	0/0
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	2	8	25%	-	-	0%	-	-	0%	2	8	25%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
6541 - Security Guards and Related security service	29	54	54%	1	1	100%	-	-	0%	30	55	55%
Occupations 6711 - Food Counter Attendants, Kitchen Helpers and Related support Occupations	71	106	67%	-	-	0%	-	-	0%	71	106	67%
7201 - Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	1	25	4%	-	-	0%	-	-	0%	1	25	4%
7202 - Contractors and Supervisors, Electrical Trades and Telecommunications Occupations	-	17	0%	-	-	0%	-	-	0%	-	17	0%
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	25	0%	-	-	0%	-	-	0%	-	25	0%
7205 - Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers	3	24	13%	-	-	0%	3	4	75%	6	28	21%
7233 - Sheet Metal Workers	6	13	46%	-	-	0%	-	-	0%	6	13	46%
7234 - Boilermakers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7236 - Ironworkers	16	155	10%		-	0%	-	-	0%	16	155	10%
7237 - Welders and Related Machine Operators	2	19	11%	-	-	0%	-	-	0%	2	19	11%
7242 - Industrial Electricians	36	158	23%	-	-	0%	9	13	69%	45	171	26%
7244 - Electrical Power Line and Cable Workers	-	1	0%	-	-	0%	14	14	100%	14	15	93%
7251 - Plumbers	1	2	50%	-	-	0%	-	-	0%	1	2	50%
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	5	41	12%	-	-	0%	-	-	0%	5	41	12%
7271 - Carpenters	28	250	11%	-	-	0%	-	-	0%	28	250	11%
7281 - Bricklayers	8	141	6%	-	-	0%	-	-	0%	8	141	6%
7293 - Insulators	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7294 - Painters and Decorators (except interior decorators)	1	11	9%	-	-	0%	-	-	0%	1	11	9%
7301 - Contractors and supervisors, mechanic trades	2	10	20%	-	-	0%	-	-	0%	2	10	20%
7302 - Contractors and supervisors, heavy equipment operator crews	-	12	0%	-	-	0%	-	-	0%	-	12	0%
7311 - Construction Millwrights and Industrial Mechanics	8	75	11%	-	-	0%	-	2	0%	8	77	10%
7312 - Heavy- Duty Equipment Mechanics	5	19	26%	-	-	0%	1	1	100%	6	20	30%
7371 - Crane Operators	7	31	23%	-	-	0%	-	-	0%	7	31	23%
7372 - Drillers and Blasters - Surface Mining, Quarrying and Construction	-	-	0%	-	-	0%	-	-	0%	-	-	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	9	18	50%	-	-	0%	1	1	100%	10	19	53%
7511 - Transport Truck Drivers	31	65	48%	-	-	0%	1	1	100%	32	66	48%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	21	26	81%	-	-	0%	-	-	0%	21	26	81%
7521 - Heavy Equipment Operators (Except Crane)	29	76	38%	-	-	0%	1	1	100%	30	77	39%
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	18	28	64%	-	-	0%	2	2	100%	20	30	67%
7612 - Other Trades Helpers and Labourers	126	167	75%		-	0%	8	9	89%	134	176	76%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators	-	2	0%	-	-	0%	4	6	67%	4	8	50%
Totals	503	1,809	28%	2	5	40%	90	199	45%	595	2,013	30%

Appendix B – Contracts Awarded Since Project Sanction

Table 29 - Contracts Awarded Since Project Sanction

Package #	Package Title	Award Date	Successful Bidder(s)
CH0011-002	Civil Works Agreement Intake, Powerhouse,	15-Feb-19	Pennecon Heavy Civil Limited
	Transition Dams & Spillway – Remaining		
	Construction		
CH0031-001	Supply and Install Mechanical and Electrical	16-Jun-17	Cahill-Ganotec Joint Venture
	Auxiliaries (MF)		
CH0052-002	Muskrat Falls Habitat Compensation Works	18-Aug-2016	Johnsons Construction Limited
CH0049-004	Installation of Debris/Ice/Safety Boom	18-Jul-2016	Johnson's Construction Limited
CT0327-024	350 kV HVdc Long Range Mountains (LRM)	18-May-2016	Mike Kelly & Sons Ltd.
	Access Clearing		
CH0049-003	Fabrication and Supply of Debris, Ice, Safety	7-Apr-2016	M&M Offshore Ltd.
	Boom		
CT0327-051	HVdc Clearing – Blocks 17 & 18	01-Apr-16	Springdale Forest Resources Inc.
CD0501-001	Supply and Install Permanent Communication	21-Mar-16	Bell Aliant Regional Communications,
	Systems, Optical Transport Network (OTN)		L.P.
CD0501-004	Transition Compounds – Civil Works	2-Mar-16	Pennecon Heavy Civil Limited
SM0700-024	Transportation of Transmission Line Material	07-Jan-16	Hunt's Transport
	(Island of Newfoundland)		PTL Services / CSL Services
			Christopher's Trucking
			Akita Equipment & Auto Transport
CD510-002	Supply and Install Permanent Communications	06-Jan-16	Talon Energy Services Inc.
	Systems-Prefabricated Buildings		
CT0327-017	HVdc Clearing and Access – Blocks 15 & 16	18-Sept-15	Springdale Forest Resources
CH0009-001	Construction of North and South Dams	14-Aug-15	Barnard Pennecon Limited Partnership
CT0342-002	Transmission Line Construction (HVac 230kV	11-Aug-15	Locke's Electrical Limited
	Modifications and NL Electrode Line)		
LC-PM-186	Project Completion System	23-Jun-15	IBS Canada
CD0508	Supply and Install Electrode Sites	02-Mar-15	H.J.O' Connell Construction Ltd.
CT0327-015	HVdc Clearing and Access – Section 1 (Blocks	09-Jan-15	Johnson's Construction Limited
	Nos. 9, 10, 11, and 12)		
CH0008	North Spur Stabilization Works	23-Dec-14	Gilbert Newfoundland & Labrador
CT0327-014	HVdc Clearing and Access – Section 1 (Blocks	19-Dec-14	Contracting Limited Springdale Forest Resources Inc.
C10327-014	Nos. 13 & 14)	19-Det-14	springuale rolest resources inc.
CT0327-011	HVdc Clearing and Access – Section 1 (Blocks	23-Sep-14	C&T Enterprises Ltd.
	Nos. 7 & Partial 6)	•	· ·
CT0327-013	HVdc Clearing and Access-Section 1 (Blocks 4, 5	2-Sep-14	Johnson's Construction Limited
	and 6)		
CD0502	Construction of AC Substations	22-Aug-14	Alstom Grid Canada, Inc.
CT0342	Construction of AC Transmission Lines – Island	19-Aug-14	Locke's Electrical Limited
CD0534	Supply & Install Synchronous Condensers at Soldiers Pond	15-Aug-14	ALSTOM Renewable Power Canada Inc.
CT0327	Construction of 350kV HVdc Transmission Line	8-Aug-14	Valard Construction LP
PH0015	Supply of Isolated Phase Bus	25-Jul-14	Alfa Standard s.p.a
CT0327-010	HVdc Clearing and Access-Section 1	22-Jul-14	Springdale Forest Resources
CD0501	Supply & Install Converters and Cable	19-Jun-14	Alstom Grid Canada Inc.
	Transition Compounds		

Package #	Package Title	Award Date	Successful Bidder(s)
PT0331	Supply of Tower Hardware 450 kV HVdc	28-May-14	Slacan Industries
		,	Performed Line Products Limited
CH0034	Supply & Install Powerhouse Elevator	29-Apr-14	Thyssen Krupp Elevator
PT0353	Supply of Optical ground Wire (OPGW) 350 kV	16-Apr-14	Suzhou Furukawa Power Optic Cable
	HVdc		Co.
PT0334	Supply of Steel Wires – 350 kV HVdc	14-Apr-14	Wire Rope Industries Ltd.
SD0564	Provision of Camp Services (CF)	8-Apr-14	Labrador Catering Ltd. Partnership
SH0041	Provision of Ground Transportation Services	14-Mar-14	PENCAL Supplies Ltd & SBH
	(HVGB-MF)		Enterprises Inc., A Joint Venture
LC-SB-011	Subsea Rock Protection Design, Supply and Installation	7-Mar-14	Tideway (Luxembourg) S.A.
SM0709	Provision of Air Transportation	10-Feb-14	Innu Mikun Ltd. Partnership and PAL Airlines
SM0705	Provision of Laboratory Services	10-Feb-14	AMEC Americas Limited
PH0014	Supply of Generator Step-Up Transformers	10-Feb-14	ABB Inc.
PD0537	Supply of Power Transformers, AC Substations at CF, MF and SP	10-Feb-14	ABB Inc.
SH0040	Provision of Garbage Removal and Disposal	23-Jan-14	Pardy's Waste Management &
PH0016	Services (MF)	17-Jan-14	Industrial Services ABB Inc.
PT0328	Supply of Generator Circuit Breakers Supply of Transmission Line Conductors-350 kV	2-Jan-14	General Cable Company Ltd. and
	HVdc		Midal Cables Ltd.
PT0356	Stockbridge Dampers	20-Dec-13	Performed Line Products (Canada) Ltd.
PT0308	Supply of Steel Tower Foundations 350kV HVdc	20-Dec-13	Locweld Inc.
CH0032	Supply & Install Powerhouse & Spillway Hydro- Mechanical Equipment	19-Dec-13	Andritz Hydro Canada Inc.
PT0352	Supply of Anchor Materials 350 kV HVdc	18-Dec-13	Williams Form Hardware & Rockbolt (Canada) Ltd.
CT0319	AC Transmission Line Construction	17-Dec-13	Valard Construction LP
SH0018	Camp Catering, Housekeeping and Janitorial Services	16-Dec-13	Labrador Catering Limited Partnership
LC-SB-034	Conduit End Exit Verification	13-Dec-13	DOF Subsea Canada
CH0033	Supply & Install Powerhouse Cranes	9-Dec-13	Groupe LAR Inc.
LC-SB-027	Supply of Casing	4-Dec-13	East Coast Tubulars Ltd.
CH0007	Construction of Intake and Powerhouse Spillway and Transition Dams	29-Nov-13	Astaldi S.p.A
SH0022	Provision of Fuel Supply & Dispensing Services	18-Nov-13	Woodward's Oil Limited and Utapan Fuels Limited, a Joint Venture
CT0341	Clearing of Right Of Way for 315kV HVac	15-Nov-13	Great Western Forestry Inc.
0.00.1	Transmission Line (MF to CF)	10 10	Great Tresterm Foresti, mer
LC-SB-026	Drill Bits and Tooling	14-Nov-13	HALLIBURTON
			Dreco Energy
			Baker Hughes Canada
			Smith Bits A Schlumberger Company
LC-SB-036	Conduit End Connection	12-Nov-13	Kongsberg Oil and Gas Technologies
CD0503-002	Construction of Earthworks at Soldier's Pond	18-Oct-13	H.J. O'Connell
PT0330	Supply of Steel Towers-350 kV HVdc	10-Oct-13	Jyoti Amercias LLC
SM0700	Provision of Freight Forwarding Services	3-Oct-13	Panalpina Inc., Panprojects Division
LC-SB-023	Drilling Fluids Services for HDD Program	6-Sep-13	M-I SWACO, a Division of Schlumberger Canada Limited

Package #	Package Title	Award Date	Successful Bidder(s)
LC-SB-024	Directional Services for HDD Program	6-Sep-13	Baker Hughes Canada Company
CD0503-001	Construction of Earthworks at Churchill Falls	5-Sep-13	Johnson's Construction Limited
LC-SB-021	Civil Works-SOBI	22-Aug-13	C&T Enterprises Limited
PH0058	Supply of 600 V Switchgear	25-Jul-13	ABB Inc.
PT0329	Supply of Insulators 350 kV HVdc	22-Jul-13	Seves Canada Inc.
CH0003	Supply and Install Administrative Buildings	19-Jul-13	Opron Construction Inc.
LC-SB-022	Provision of Drilling Rig and Surface Spread for HDD Program	19-Jul-13	Direct Horizontal Drilling Inc.
CT0354	HVAC Marshalling Yard Civil and Electrical Works	17-Jul-13	Johnson's Construction Limited
ST0311	Provision of Survey Services (315) kV HVac	10-Jul-13	MMM Group Limited & N.E. Parrott Surveys Limited, a joint venture
SM0704	Provision of Surveying Services	14-Jun-13	Edwards & Associates Ltd.
SD0565	Provision of Geotech Investigation Shoreline Pond Electrodes	6-Jun-13	Stantec Consulting Ltd.
PT0335	Supply of Anchor Materials – 315 kV HVac	22-Oct-13	Williams Form Hardware & Rockbolt (Canada) Ltd.
CH0024	Construction of Reservoir Clearing North Bank	25-Apr-13	Johnson Construction Ltd.
PT0303	Supply of Hardware 315 kV HVac	17-Apr-13	Mosdorfer GmbH (Austria)
PT0300	Supply of Transmission Line Conductors 315 kV HVac	5-Apr-13	Midal Cables Ltd.
SM0713	Provision of Geotechnical Investigation Services	27-Mar-13	AMEC Environment & Infrastructure
SM0701	Provision of 3rd Party Quality Surveillance and Inspection Services	18-Mar-13	SGS Canada Inc. Killick Group Ltd. GL Noble Denton Canada Ltd Moody International Ltd.
PT0307	Supply of Tower Foundations-315 kV HVac	5-Mar-13	Fabrimet
PT0302	Tower Steels for AC Lines	6-Feb-13	ŞA-RA Energy, Construction, Trade and Industry Inc.
PT0326	Supply of Steel Wires-315 kV HVac	28-Jan-13	Graybar Canada
PT0304	Optical Ground Wire Conductors (OPGW) 315 kV HVac	25-Jan-13	PT0304-001 Mosdorfer North Caroline Inc. PT0304002 Suzhou Furukawa Power Optic Canada Inc.
PT0301	Supply of Insulators 315 kV HVac	18-Jan-13	Seves Canada Inc.
SH0054	Temporary Site Services	10-Jan-13	Labrador Catering Limited Partnership
CH0030	Turbines and Generators	2-Jan-13	Andritz Hydro Canada Inc.
LC-SB-003	Submarine Cable Design, Supply and Install	29-Nov-12	Nexans Norway AS

Package #	Package Title	Award Date	Successful Bidder(s)
LC-SB-018	Provision of Third Party Equipment, Manufacturing, Supply, and Installation Surveillance Service	27-Nov-12	Lloyd's Register North America Spectrol Group
СН0006	Bulk Excavation Works	6-Nov-12	IKC-ONE Earthworks Constructors, a Partnership
SH0019	Provision of Security Services	1-Nov-12	Speuata Security Inc.
SH0020	Provision of Medical Services	1-Nov-12	Innu - Med Inc.
CH0002	Supply and Install Accommodations Complex Buildings	22-Oct-12	Liannu Limited Partnership
PH0038	Supply of Emergency Diesel Generator	12-Oct-12	Toromont CAT, a division of Toromont industries Ltd
LC-SB-017	Ocean Characteristic Monitoring and MetOcean Report	13-Sep-12	AMEC Environment & Infrastructure A Division of AMEC Americas
PH0036	Supply of Auxiliary Transformers	13-Aug-12	MVA Power
CD0512	Construction Contract for Construction Power	20-Jun-12	G.J. Cahill & Company Ltd.
CH0004	Southside Access Road	25-Oct-12	Liannu
CH0048	Site Clearing Access Road & Ancillary Areas	20-Apr-12	Nukum Forestry Ltd
PD0522	Pre-Fabricated Control Room Building	11-Apr-12	Automatisation Grimard Inc.
PD0531	MV Instrument Transformer (Combined CT&PT Unit)	19-Mar-12	ABB Inc.
PD0515	138 kV and 25 kV Disconnect Switches (with and without ground switches)	13-Feb-12	Alstom Grid
PD0514	135 kV and 25 kV Circuit Breakers (dead tank type)	6-Feb-12	Alstom Grid Via Power Systems Consulting
PD0518	138 kV Capacitor Voltage Transformers (CVTs)	6-Feb-12	Alstom Grid Via Power Systems Consulting
PD0519	25 kV Vacuum Interrupters	6-Feb-12	Siemens Canada Limited
PD0520	25 kV 6×4 MVAR Capacitor Banks	6-Feb-12	ABB
PD0529	25 kV Reclosers	6-Feb-12	Siemens Canada Limited
PD0530	138 kV and 25 kV Class Surge Arresters	6-Feb-12	Graybar Canada
PD0523	Substation Service Transformers	19-Jan-12	Carte International Inc
LCP 00728	Web-Based Employment and Expenditure Tracking and Reporting Software	22-Aug-11	SCI Resource Software Inc.
LC-SB-002	Iceberg Tracking Program	19-Aug-11	Provincial Aerospace LTD. (PAL)
LC-SB-007	2011 HDD Pilot Bore Field Investigation Program	19-Aug-11	Mears Canada Corp.



Muskrat Falls Project

Monthly Report February 2019

April 18, 2019



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1.0 Monthly Report Overview

This report¹ provides the monthly update for February 2019 on the following projects associated with the Muskrat Falls development:

- the 824 megawatt (MW) hydroelectric development at Muskrat Falls (the Muskrat Falls hydroelectric generating facility);
- two 315 kilovolt (kV) High Voltage alternating current (HVac) transmission lines between Muskrat Falls and Churchill Falls (the Labrador Transmission Assets); and
- the 1,100 km long High Voltage direct current (HVdc) transmission line between Muskrat Falls and Soldiers Pond (the Labrador-Island Transmission Link).

Included in this report are details on construction activities and costs, safety and environmental activities, procurement information, and details on stakeholder and community engagement initiatives during the reporting period. The report also provides detailed statistical tables summarizing employment and expenditure benefits generated from the Muskrat Falls development.

2.0 Highlights this Month

Construction of the Muskrat Falls Project progressed during the month on both the generation and transmission components. As of the end of February:

- overall construction of the Muskrat Falls Project remained at 97% complete;
- the Muskrat Falls generation project reached 94% complete;
- both the Labrador-Island Transmission Link and the transmission line connecting Churchill Falls to Muskrat Falls remained at over 99% complete.



View looking upstream at the Muskrat Falls generation facility

Muskrat Falls Project – February 2019 Project Report

¹ This report is prepared by Lower Churchill Management Corporation (LCMC), the Nalcor Energy subsidiary responsible for managing the construction of the Muskrat Falls hydroelectric generating facility, the Labrador Transmission Assets and the Labrador-Island Transmission Link.

3.0 Construction Update

3.1 Muskrat Falls Hydroelectric Generating Facility

The following outlines some of the construction activities for the components of the Muskrat Falls hydroelectric generation facility undertaken in February:

- Pennecon Heavy Civil Ltd. continued to undertake civil work on the Intake and Powerhouse. In the Intake, completion of Bays 4 and 5 occurred and continuation of concreting finishing of Bay 6 is ongoing. In the Powerhouse, Unit 2 achieved pit free and preparations are continuing for stage 7 concrete at Units 3 and 4.
- Andritz completed preservation work on the turbine and generator components, along with continuation of Unit 1 runner, rotor, and head cover assembly in the South Service Bay.
- Cahill-Ganotec continued to work on balance of plant activities for architectural, electrical and piping work; mechanical completion and commissioning.
- Barnard Pennecon Limited Partnership continued with the removal of Intake channel fill material.



North Dam – looking south towards the Spillway



Upstream view of the Spillway (left) and Intake (right)



Powerhouse and Tailrace Channel

2018: A Year of Progress & Achievements

Through the hard work and dedication of thousands of skilled men and women from across our province and throughout Canada, we achieved many important milestones in 2018.

At the Muskrat Falls generating site, the final concrete was placed on the third and final dam required for the facility. In the powerhouse, our teams started the assembly and installation of the massive turbine and generator for the first of four units. The work our teams completed on the generation project last year moves us closer to delivering first power in 2019.



In June 2018, history was made with the flow of power from the Churchill Falls Generating Station across our newly constructed transmission system to the island. Although commissioning and testing continues, bringing power from Labrador to the island added to winter reliability and produced savings for Hydro customers this past winter. Through 2018, commissioning and testing of the new transmission assets continued and power flowed across LIL from the Churchill Falls Generating Station to the island. Economic savings related to avoided fuel costs at Holyrood in 2018 related to LIL was \$6.3 million.



3.2 Labrador Transmission Assets (LTA)

Construction of LTA is complete. Activities on the LTA continued during the month with work on punch list items at both the Churchill Falls and Muskrat Falls switchyards. Finalization of access road reclamation work is in progress.



Aerial view of the switchyard at the Muskrat Falls site

3.3 Labrador-Island Transmission Link (LIL)

Construction of the transmission line from Muskrat Falls to Soldiers Pond is complete. Activities for LIL continued during the month and included:

- Continuation of HVdc Control System software development.
- Continuation of work on punch list and clean-up items at the Soldiers Pond AC Switchyard.
- Continuation of Pole 1 and Pole 2 punch list items at the Muskrat Falls and Soldiers Pond Converter Stations.
- Continuation of static commissioning activities at the Soldiers Pond Synchronous Condenser site.

3.4 Construction Cost Summary

The current facilities capital cost estimate of the Muskrat Falls Project is \$10.1 billion. The total cost including interest during construction and capitalized financing costs is \$12.7 billion (see Table 1).

3.4.1 Incurred Cost Overview

Table 1 summarizes the incurred costs for the project for the month of February and for the project to date. Incurred costs refer to the value of work performed during the period regardless of it being paid during the current period or at some point in the future.

Table 1 - Estimate and Incurred costs for Muskrat Falls Project to February 2019 (Costs in millions of CAD \$)*

Project Component	Current Cost	Incurred Cost	Incurred Cost Project	
	Estimate	Current Month	to Date	
Muskrat Falls Hydroelectric	\$5,500	\$34	\$4,706	
Generating Facility				
Labrador Transmission Assets	\$904	\$0.2	\$852	
Labrador-Island Transmission Link	\$3,714	\$19	\$3,500	
Total	\$10,118	\$53.2	\$9,058	

^{*} Value excludes interest during construction and capitalized financing costs.

3.4.2 Monthly Expenditure Overview

- Total expenditures paid for the Muskrat Falls Project were \$57 million in February 2019. This included almost \$34 million to Newfoundland and Labrador businesses.
- From January 2013 to the end of the reporting period in February 2019, almost \$2.9 billion has been spent directly with Newfoundland and Labrador-based companies.
- The cumulative expenditures made to NL business since Project Sanction is illustrated in Figure 1.

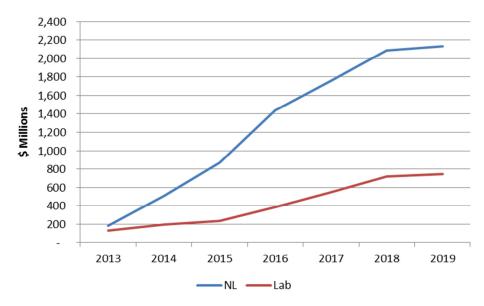


Figure 1 - Cumulative Expenditures to Newfoundland and Labrador Businesses (Jan 2013 to February 2019)

4.0 Safety and Environment

4.1 Safety

LCP and all contractors working on the Muskrat Falls Project have a relentless commitment to the safety of workers and the public. Table 2 outlines the Health and Safety indicators and measurements for the month of February and for the project to date.

Table 2 - Health and Safety Indicators and Measurements – February 2019 and Project to Date

Indicator	February 2019	Project to Date
Orientations completed	815	56,184
Safety Step Backs completed	9,151	1,894,003
Work site inspections	293	98,695
Lost-time injuries	0	16
Medical aid incidents	0	114

4.2 Environment

The LCP Environment and Regulatory Compliance (ERC) Team is committed to maintaining a high standard of environmental responsibility that will help to sustain a diverse and healthy environment for generations of Newfoundlanders and Labradorians.

A component of the aquatic environmental effects monitoring program includes seal sampling. Ringed seals have been collected since 2011 from the Upper Lake Melville area. The aquatic program is led by Wood E&IS, who employs a local resident, Wally Best, to collect seal samples. Mr. Best is a long-time resident of Goose Bay and Nunatsiavut Beneficiary. He has been an active trapper in the area for 33 years, and has hunted seal with his father since he was 10 years old.

Mr. Best hunts seals for the local community freezer and provides samples to Wood from these same animals. As a result no additional animals are harvested for the sampling program, and the samples that are collected represent those that are consumed by local residents.

Measurements on each seal are recorded, and a muscle and liver sample is collected for mercury analysis, teeth are collected for aging and a muscle sample is also collected for stable isotope analysis to determine the animal's place within the Lake Melville food chain.

Mr. Best's local knowledge plays a key role in the success of the seal sampling program. He provides advice on when crews should mobilize to execute the program. "Basically all I do is hunt, fish and trap when I'm not working, which is why I really like my job with Wood," said Mr. Best.



Wally Best collecting samples on Lake Melville.

5.0 Employment, Benefits and Community Engagement

This section provides information on employment benefits generated during the month as well as details on some of the community activities undertaken during the month. Some of these activities are part of commitments made by LCP through the Benefits Strategy with the provincial government, the Impacts and Benefits Agreement (IBA) with Innu Nation, the Gender Equity and Diversity Program, and provincial and federal environmental regulatory commitments.

Skilled Newfoundlanders and Labradorians Powering Our Province

Last year, more than 4,650 jobs were filled by people from across our province. Our workers came together to apply their skills and expertise to help us reach 96% construction completion on the Muskrat Falls generation and transmission projects. We thank each and every person for their hard work and their continued dedication to safety, quality and the environment.

We believe our province and society as a whole benefits from a diverse and inclusive environment where different perspectives combine to push our entire team to its fullest potential. We are proud that the total number of people working on our project in 2018 included over 600 females and over 450 people who identified as Indigenous.



5.1 Employment Highlights

The employment highlights for the month of February are summarized below. Detailed employment information and statistics are outlined in Section 8.

- In February, over 338,000 hours were worked by 2,320 individuals on the projects, including almost 287,000 hours of work in Labrador.
- During the month of February, 2,133 residents of Newfoundland and Labrador were employed on the projects, representing 92 per cent of the total persons employed.
- In February, there were 1,909 people working in Labrador, of whom 596 were Labrador residents (approximately 31 per cent). Of these 596 Labrador residents, 218 self-identified as a member of a Labrador Aboriginal group (approximately 37 per cent). A breakdown of the employment in Labrador by affiliation is shown in Figure 2 below.

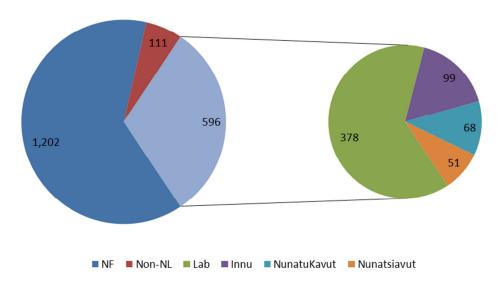


Figure 2 - Employment in Labrador by Affiliation (February 2019)

5.2 Recruitment Activities

Employers continue to utilize <u>muskratfallsjobs.com</u> as a tool to find qualified residents of the province to fill available positions. The website also details current opportunities with the LCP Project Delivery Team as well as contact information for LCP recruitment service providers.

5.2.1 Workplace Orientation

To foster a safe and respectful workplace, all workers complete mandatory training in site safety rules and procedures, respectful workplace protocols, and gender and cultural awareness.

5.2.2 Labrador Aboriginal Training Partnership (LATP) Support

The LATP continued to offer client counseling to Aboriginal individuals seeking employment, as well as providing funding support for safety certifications. While LCP is no longer the industry partner in this organization, as the LATP has engaged with Vale for a multi-year project, LATP still has the ability to assist clients who may be connected to employment at Muskrat Falls.

5.3 Gender Equity and Diversity

5.3.1 Employment of Women

In February, 314 women were working on all project components, comprising approximately 14 per cent of the total workforce. Of these, 108 were working in construction, 9 in engineering, 112 in project management, and 85 in project support. Of the 314 women working on the project, 295 of them are Newfoundland and Labrador residents. Table 3 below breaks down the types of jobs held by female workers during February.

Table 3 - Types of Jobs Worked by Females (February 2019)

Job Type	Number
Camp and Catering Staff	54
Administrative Staff	47
Student	23
General Labourer	29
Financial/Accounting Staff	30
Engineering	14
Other professional	21
Other trades	20
EMR/security	13
Civil Technologist	10
Heavy Equipment Operator	8
Procurement	4
HR Staff	13
Carpenter/Scaffolder	4
Electrician	7
H&S Staff	8
Other technical	5
Environmental Staff	4
Total	314

5.3.2 Promoting Women in Trades

LCP continued to work closely with the Office to Advance Women Apprentices (OAWA) to support female apprentices gain employment on the Project, as well as addressing issues with those already employed.

5.4 Employment of Students and Apprentices

LCP supports the hiring of students and apprentices. Statistical data on the hiring of students and apprentices is provided in the following sections.

5.4.1 Employment of Students

In the fourth quarter of 2018, there were 61 students working on the Muskrat Falls Project. Figure 3 below illustrates the quarterly time profile of students working on the Project between the first quarter of 2016 and the end of the fourth quarter of 2018.

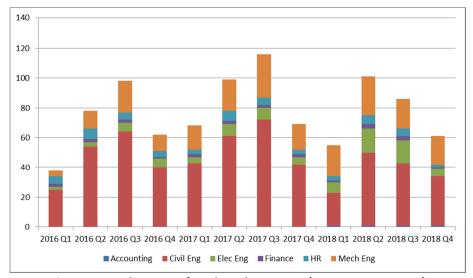


Figure 3 - Employment of Students by Quarter (Q1 2016 to Q4 2018)

5.4.2 Employment of Apprentices

During the fourth quarter of 2018, 297 apprentices were working on the project, including 44 females. Figure 4 below illustrates the quarterly time profile of apprentices working on the Project between the first quarter of 2016 and the end of the fourth quarter of 2018.

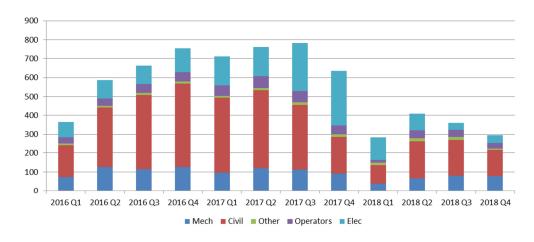


Figure 4 - Employment of Apprentices by Quarter (Q1 2016 to Q4 2018)

5.5 Labrador Innu Initiatives - Impacts and Benefits Agreement (IBA) Implementation Activities

During the month of February, 99 Innu were employed at Muskrat Falls and transmission line sites in Labrador. Innu employees were working in a wide range of occupations, including construction trades, labourers, camp accommodations and food services. The Innu workforce included persons occupying management, apprenticeship, foreperson and shop steward positions.

5.6 Community Engagement

LCP has established multiple venues for members of the public to ask questions, seek employment information, and get details about the Muskrat Falls development. LCP has a website for people to apply for jobs (muskratfalls.com) as well as a website that provides information on project construction activities (muskratfalls.nalcorenergy.com). In addition, people can contact LCP through the toll-free number, by email, or by visiting the project office in Happy Valley-Goose Bay.

6.0 Definitions

Term	Definition
Benefits Strategy	Lower Churchill Construction Project Benefits Strategy as agreed by the Province of Newfoundland and Labrador and LCP.
Expenditures	Expenditures for the month are defined as those expenditures from invoices which have been approved for payment during the month.
Incurred Costs	Value of work performed during the period (month) regardless of it being paid during the current period or at some point in the future.
Industry Category	Based on the North American Industry Classification System (NAICS) and used to categorize companies for expenditure reporting.
Island or NF	Refers to the residency of employees, the location of work completed or the location of a company; includes residents from, work done on or companies located on the island portion of NL.
NOC Code	Occupational codes from the National Occupational Classification system, which is the standard system for classifying jobs in Canada. It is a hierarchical structure with four levels of classifications. Both the 2-digit and 4-digit classifications are used in this report.
Person Hours	Hours worked by individuals on the project.
Persons Employed	Any person who has worked at any time on the Project during the time period referenced.
Project to Date	Cumulative totals for the period from February 1, 2013 up to the end of the current month.
Residents	Residents of Newfoundland and Labrador who meet the requirements as defined in the Benefits Strategy.

7.0 Abbreviations and Acronyms

Abbreviation/Acronym	Definition
BMRS	Benefits Monitoring and Reporting System
C&A	Construction and Assembly
CEC	Conduit End Connection
CLC	Community Liaison Committee
CNA	College of the North Atlantic
CPR	Cardiopulmonary Resuscitation
	Centre Transition Dam
CTD	
DG3	Decision gate 3
E&D EMC	Engineering and Design
	Environmental Management Committee
EMS	Environmental Management System
EPP	Emergency Preparedness Plans
ERC	Environment and Regulatory Compliance
FAT	Factory Acceptance Testing
GIS	Gas Insulated Switchgear
GPR	Ground Penetrating Radar
HDD	Horizontal Directional Drilling
HHRA	Human Health Risk Assessment
HVac	High voltage AC transmission
HVdc	High voltage DC transmission
IBA	Impacts and Benefits Agreement
INT	International (Location of Work or Company)
kV	Kilovolt
LATP	Labrador-Aboriginal Training Partnership
LCP	Lower Churchill Project
LIL	Labrador-Island Transmission Link
LRM	Long Range Mountains
LTA	Labrador Transmission Assets
MeHg	Methylmercury
MFG	Muskrat Falls Hydroelectric Generation Facility
MW	Megawatt
NLESA	Newfoundland and Labrador Endangered Species Act
NLOWE	Newfoundland and Labrador Organization of Women Entrepreneurs
OAWA	Office to Advance Women Apprentices
ОС	Other Canada
OSEM	On-site Environmental Monitor
PEGNL	Professional Engineers and Geoscientists of Newfoundland and Labrador
PM	Project Management
RCC	Roller-compacted concrete
Res	Residents of Newfoundland and Labrador
RFP	Request for Proposal
ROW	Right of Way
SOBI	Strait of Belle Isle
T&G	Turbine and Generator
THg	Total Mercury
TTO	Transition to Operations
WRDC	Women in Resource Development Corporation
	The state of the s

8.0 Employment Benefits

All information on employment is provided by both person hours and the number of persons employed for the following categories:

- Total employment
- Employment by NOC Code
- Employment by Location of Work
- Employment by Aboriginal Affiliation
- Employment by Gender

8.1 Total Employment

Tables 4 through 6 break out the project employment in both person hours and persons employed by location of work and residency.

Table 4 - Person Hours of Employment by Location of Work and Residency (February 2019)

Residency									
	Island		Labrador		Other Canada		Non-Canadian		
Work Location	at Location	% of Total	at Location	% of Total	at Location	% of Total	at Location	% of Total	Total
Island	41,803	83.7%	461	0.9%	6,407	12.8%	1,283	2.6%	49,953
Labrador	189,007	66.0%	78,730	27.5%	17,324	6.0%	1,480	0.5%	286,542
Other Canada	-	0.0%	-	0.0%	2,179	100.0%	-	0.0%	2,179
International	-	0.0%	-	0.0%	160	100.0%	-	0.0%	160
Total	230,810	68.1%	79,191	23.4%	26,070	7.7%	2,763	0.8%	338,834

Table 5 - Person Hours of Employment by Location of Work and Residency (Project to Date)

	Residency								
	Islan	Island		Labrador		Other Canada		Non-Canadian	
Work Location	at Location	% of Total	at Location	% of Total	at Location	% of Total	at Location	% of Total	Total
Island	6,214,566	80.7%	198,711	2.6%	1,150,933	14.9%	135,931	1.8%	7,700,141
Labrador	20,730,047	58.4%	9,370,457	26.4%	5,019,211	14.1%	396,597	1.1%	35,516,311
Other Canada	8,940	2.4%	-	0.0%	361,897	95.6%	7,618	2.0%	378,455
International	-	0.0%	-	0.0%	9,270	11.7%	69,997	88.3%	79,267
Total	26,953,552	61.7%	9,569,168	21.9%	6,541,311	15.0%	610,143	1.4%	43,674,173

Table 6 - Number of Persons Employed by Location of Work and Residency (February 2 2019)

	Residency											
	Islaı	nd	Labra	ador	Other (Canada	Non-Ca					
Work Location	at Location	%of Total	Total									
Island	332	86.7%	3	0.8%	40	10.4%	8	2.1%	383			
Labrador	1,202	63.0%	596	31.2%	103	5.4%	8	0.4%	1,909			
Other Canada	-	0.0%	-	0.0%	27	100.0%	-	0.0%	27			
International	-	0.0%	-	0.0%	1	100.0%	-	0.0%	1			
Total	1,534	66.1%	599	25.8%	171	7.4%	16	0.7%	2,320			

8.2 Employment by NOC Code

Tables 7 and 8 summarize project employment by 2-digit NOC Code. Appendix A contains an overview of the methodology used to capture employment by job title and how that information is converted to NOC codes. In addition, occupational information by 4-digit NOC code as well as information on employment by NOC code and gender, Aboriginal affiliation and for residents of Labrador is also provided in Appendix A.

Table 7 - Person Hours of Employment by 2-Digit NOC Code (February 2019 and Project to Date)

		Current	Month			Project	to Date	
2-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
00 - Senior management occupations	316	-	1,502	1,818	132,968	8,008	76,446	217,421
01-05 - Specialized middle management occupations	2,748	539	3,178	6,465	513,816	120,204	394,829	1,028,848
07-09 - Middle management occupations in trades, transportation,	2,405	_	3,417	F 933	666,728	12,249	250,086	929,063
production and utilities	2,405	-	3,417	5,822	000,728	12,249	250,086	929,063
11 - Professional occupations in business and finance	1,628	-	3,947	5,575	204,105	18,308	317,241	539,654
12 - Administrative and financial supervisors and administrative occupations	3,856	970	6,050	10,876	595,017	188,103	622,109	1,405,229
13 - Finance, insurance and related business administrative occupations	383	64	1,441	1,888	105,212	15,408	136,015	256,634
14 - Office support occupations	1,778	-	319	2,097	321,828	72	4,874	326,774
21 - Professional occupations in natural and applied sciences	11,831	5,133	22,968	39,932	1,996,639	714,078	1,788,564	4,499,282
22 - Technical occupations related to natural and applied sciences	10,484	2,111	10,647	23,242	1,480,003	382,471	725,181	2,587,655
32 - Technical occupations in health	2,369	-	-	2,369	295,649	-	4,188	299,837
41 - Professional occupations in law and social, community and government	730	400	1,844	2,973	226,733	104,191	188,999	519,923
services	730	400	1,044	2,973	220,733	104,191	100,999	515,525
43 - Occupations in front-line public protection services	2,038	_	283	2,321	45,470	-	2,963	48,432
63 - Service supervisors and specialized service occupations	2,313	-	-	2,313	283,653	-	7,472	291,125
65 - Service representatives and other customer and personal services	7,546	194	_	7,740	580,305	12,364	6,593	599,261
occupations	7,340	194		7,740	380,303	12,304	0,595	333,201
67 - Service support and other service occupations, n.e.c.	14,244	-	-	14,244	1,580,276	-	4,142	1,584,418
72 - Industrial, electrical and construction trades	121,709	-	4,293	126,001	12,387,432	12,789	224,735	12,624,956
73 - Maintenance and equipment operation trades	20,880	-	1,989	22,868	2,201,944	2,193	47,395	2,251,531
74 - Other installers, repairers and servicers and material handlers	2,267	-	174	2,441	316,113	48	24,791	340,952
75 - Transport and heavy equipment operation and related maintenance	24,566		13	24,579	5,843,192	2,145	112,049	5,957,386
occupations	24,300	_	13	24,373	3,643,132	2,143	112,049	3,337,380
76 - Trades helpers, construction labourers and related occupations	30,698	-	539	31,237	6,551,705	3,995	110,383	6,666,083
82 - Supervisors and technical occupations in natural resources, agriculture					542,351		7,696	550,046
and related production	_	-	-	-	342,331	-	7,090	550,046
86 - Harvesting, landscaping and natural resources labourers	-	-	-	-	80,937	60	6,723	87,720
92 - Processing, manufacturing and utilities supervisors and central control			1,671	2,037	37,001		24,941	61,942
operators	366		1,071	2,037	37,001		24,941	01,342
All Occupation Categories	265,151	9,411	64,272	338,834	36,989,079	1,596,682	5,088,411	43,674,172

Table 8 - Residents Hired by 2-Digit NOC Code (February 2019)

		C&A			E&D			PM		Total		
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
2-Digit NOC	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
00 - Senior management occupations	3	3	100%	1	-	0%	8	11	73%	11	14	79%
01-05 - Specialized middle management occupations	16	20	80%	2	4	50%	28	30	93%	46	54	85%
07-09 - Middle management occupations in trades,	11	15	720/			00/	4.5	20	750/	20	25	740/
transportation, production and utilities	11	15	73%	-	-	0%	15	20	75%	26	35	74%
11 - Professional occupations in business and finance	7	10	70%	-	-	0%	30	30	100%	37	40	93%
12 - Administrative and financial supervisors and	16	27	F00/	6	c	1000/	24	42	81%	r.c	75	75%
administrative occupations	16	27	59%	6	6	100%	34	42	81%	56	/5	75%
13 - Finance, insurance and related business	1	3	33%	1	1	100%	13	13	100%	15	17	88%
administrative occupations		3	33%	1	1	100%	15	13	100%	15	17	00%
14 - Office support occupations	11	11	100%	-	-	0%	3	3	100%	14	14	100%
21 - Professional occupations in natural and applied	49	73	67%	7	36	19%	133	163	82%	189	272	69%
sciences	49	/3	07%	,	30	15%	133	105	0270	109	212	03%
22 - Technical occupations related to natural and applied	49	59	83%	8	12	67%	78	85	92%	135	156	87%
sciences	43	33	63/6	0	12	07/6	76	63	32/0	133	130	07/0
32 - Technical occupations in health	13	14	93%	-	-	0%	-	-	0%	13	14	93%
41 - Professional occupations in law and social, community	2	5	40%	2	4	50%	17	17	100%	21	26	81%
and government services		J	40/0	2	4	30%	17	17	100%	21	20	01/0
43 - Occupations in front-line public protection services	12	12	100%	-	-	0%	1	1	100%	13	13	100%
63 - Service supervisors and specialized service	9	12	75%	_	_	0%	_	_	0%	9	12	75%
occupations	9	12	73/0			070	_		070	9	12	73/0
65 - Service representatives and other customer and	50	51	98%	1	1	100%	_	_	0%	51	52	98%
personal services occupations	30	31	3070	_	-	100/0			070	31	32	3070
67 - Service support and other service occupations, n.e.c.	105	105	100%	-	-	0%	-	-	0%	105	105	100%
72 - Industrial, electrical and construction trades	777	801	97%	-	-	0%	47	49	96%	824	850	97%
73 - Maintenance and equipment operation trades	142	144	99%	-	-	0%	13	13	100%	155	157	99%
74 - Other installers, repairers and servicers and material	16	16	100%			0%	4	4	100%	20	20	100%
handlers	10	10	100%	-	-	0%	4	4	100%	20	20	100%
75 - Transport and heavy equipment operation and	157	158	99%	_	_	0%	3	3	100%	160	161	99%
related maintenance occupations	137	130	3376	_	_	070	3	J	100/6	100	101	3376
76 - Trades helpers, construction labourers and related	205	205	100%	_	_	0%	11	11	100%	216	216	100%
occupations	203	203	100/0			0,0			100/0	210	210	100/0
82 - Supervisors and technical occupations in natural	_	_	0%	_	_	0%	_	_	0%	_	_	0%
resources, agriculture and related production			0,0			0/0			0 /0			•/0
86 - Harvesting, landscaping and natural resources	_	_	0%	_	_	0%	_	_	0%	_	_	0%
labourers			•,-			2,5			2,5			•
92 - Processing, manufacturing and utilities supervisors	3	3	100%	-	-	0%	14	14	100%	17	17	100%
and central control operators												
All Occupation Categories	1,654	1,747	95%	27	64	42%	452	509	89%	2,133	2,320	92%

8.3 Employment by Location of Work

Table 9 - Person Hours of Employment by Location of Work (February 2019 and Project to Date)

		Current	Period		Project to Date						
Work Location	C&A	E&D	PM	Total	C&A	E&D	PM	Total			
NL											
Island	4,420	6,965	38,568	49,953	3,594,238	1,104,739	3,001,164	7,700,141			
Labrador	260,139	979	25,424	286,542	33,143,817	324,737	2,047,978	35,516,532			
Total NL	264,559	7,944	63,992	336,495	36,738,055	1,429,475	5,049,142	43,216,672			
Other Canada	592	1,467	120	2,179	186,471	167,098	24,666	378,234			
Total Canada	265,151	9,411	64,112	338,674	36,924,526	1,596,573	5,073,808	43,594,906			
International	-	-	160	160	64,554	109	14,604	79,267			
All Locations	265,151	9,411	64,272	338,834	36,989,080	1,596,682	5,088,412	43,674,173			

Table 10 - Residents Hired by Location of Work (February 2019)

		C&A			E&D			PM		Total		
Work Location	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total
NL												
Island	36	37	97%	21	42	50%	278	304	91%	335	383	87%
Labrador	1,618	1,700	95%	6	6	100%	174	203	86%	1,798	1,909	94%
Total NL	1,654	1,737	95%	27	48	56%	452	507	89%	2,133	2,292	93%
Other Canada	-	10	0%	-	16	0%	-	1	0%	-	27	0%
Total Canada	1,654	1,747	95%	27	64	42%	452	508	89%	2,133	2,319	92%
International	-	-	0%	-	-	0%	-	1	0%	-	1	0%
Total	1,654	1,747	95%	27	64	42%	452	509	89%	2,133	2,320	92%

8.4 Employment by Aboriginal Affiliation

Table 11 - Person Hours of Employment by Aboriginal Affiliation (February 2019 and Project to Date)

		Curren	t Period		Project to Date			
Aboriginal Group	C&A	E&D	PM	Total	C&A	E&D	PM	Total
Labrador Innu ^(a)	11,747	-	266	12,013	1,360,952	-	33,640	1,394,592
Nunatsiavut ^(a)	7,004	50	143	7,197	978,921	23,146	37,270	1,039,337
NunatuKavut ^(a)	10,143	200	393	10,736	1,260,939	13,880	41,202	1,316,021
Other NL Aboriginal ^(a)	4,946	-	299	5,245	524,631	-	38,988	563,619
Aboriginal - Other Canada	378	-	-	378	201,930	-	2,362	204,292
Non-Aboriginal ^(b)	230,934	9,161	63,171	303,265	32,735,011	1,559,907	4,861,394	39,156,312
All Groups	265,151	9,411	64,272	338,834	37,062,384	1,596,933	5,014,855	43,674,172

⁽a) Also NL residents

Table 12 - Persons Employed by Aboriginal Affiliation (February 2019)

	C&	A	E8	kD.	PI	VI	Tot	al
Aboriginal Group	Persons	%	Persons	%	Persons	%	Persons	%
Residents								
Labrador Innu	96	5.8%	-	0.0%	3	0.7%	99	4.6%
Nunatsiavut	50	3.0%	1	3.7%	1	0.2%	52	2.4%
NunatuKavut	66	4.0%	1	3.7%	2	0.4%	69	3.2%
Other Aboriginal	30	1.8%	-	0.0%	2	0.4%	32	1.5%
All Aboriginal	242	14.6%	2	7.4%	8	1.8%	252	11.8%
Non-Aboriginal	1,412	85.4%	25	92.6%	444	98.2%	1,881	88.2%
Total	1,654	100%	27	100%	452	100%	2,133	100%
Non Residents								
Aboriginal – Canada	2	2.2%	-	0.0%		0.0%	2	1.1%
Non-Aboriginal	91	97.8%	37	100.0%	57	100.0%	185	98.9%
Total	93	100%	37	100%	57	100%	187	100%
Summary								
Aboriginal	244	14.0%	2	3.1%	8	1.6%	254	10.9%
Non-Aboriginal	1,503	86.0%	62	96.9%	501	98.4%	2,066	89.1%
Total	1,747	100%	64	100%	509	100%	2,320	100%

⁽b) Includes residents and non-residents

Tables 13 through 15 summarize the employment of Aboriginal people and non-Aboriginal people both in terms of hours worked and persons employed by location of work during the month and for the Project to Date.

Table 13 - Person Hours of Employment by Location of Work and Aboriginal Affiliation (February 2019)

	Labrador	Innu	Nunatuk	avut	Nunatsi	avut	Other Ab	original	Non-Abo	original	
Work	At		At		At		At		At		
Location	Location	%	Location	%	Location	%	Location	%	Location	%	Total
Island	-	0.0%	200	0.4%	115	0.2%	299	0.6%	49,339	98.8%	49,953
Labrador	12,013	4.2%	10,536	3.7%	7,082	2.5%	5,114	1.8%	251,797	87.9%	286,542
Other Canada	-	0.0%	-	0.0%	-	0.0%	210	9.6%	1,969	90.4%	2,179
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	160	100.0%	160
All Locations	12,013	3.5%	10,736	3.2%	7,197	2.1%	5,623	1.7%	303,265	89.5%	338,834

Table 14 - Person Hours of Employment by Location of Work and Aboriginal Affiliation (Project to Date)

	Labrador	Innu	NunatuKa	avut	Nunatsi	avut	Other Abo	riginal	Non-Abo	original	
Work Location	At Location	%	At Location	%	At Location	%	At Location	%	At Location	%	Total
Island	2,961	0.0%	67,135	0.9%	24,737	0.3%	77,182	1.0%	7,528,125	97.8%	7,700,141
Labrador	1,391,631	3.9%	1,248,886	3.5%	1,014,600	2.9%	689,505	1.9%	31,171,688	87.8%	35,516,311
Other Canada	-	0.0%	-	0.0%	-	0.0%	1,223	0.3%	377,232	99.7%	378,455
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	79,267	100.0%	79,267
All Locations	1,394,592	3.2%	1,316,021	3.0%	1,039,337	2.4%	767,911	1.8%	39,156,313	89.7%	43,674,173

Table 15 - Number of Persons Employed by Location of Work and Aboriginal Affiliation (February 2019)

	Labrador	Innu	Nunatuk	avut	Nunatsi	avut	Other Abo	riginal	Non-Ab	original	
Work	At		At		At		At		At		
Location	Location	%	Location	%	Location	%	Location	%	Location	%	Total
Island	-	0.0%	1	0.3%	1	0.3%	2	0.5%	379	99.0%	383
Labrador	99	5.2%	68	3.6%	51	2.7%	31	1.6%	1,660	87.0%	1,909
Other Canada	-	0.0%	-	0.0%	-	0.0%	1	3.7%	26	96.3%	27
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	1	100.0%	1
All Locations	99	4.3%	69	3.0%	52	2.2%	34	1.5%	2,066	89.1%	2,320

8.5 Employment by Gender

Table 16 - Person Hours of Employment by Gender (February 2019 and Project to Date)

		Curren	t Period		Project to Date			
Gender	C&A	E&D	PM	Total	C&A	E&D	PM	Total
Female	27,419	1,185	14,434	43,038	3,668,575	232,571	1,085,451	4,986,597
Male	237,733	8,226	49,838	295,796	33,393,809	1,364,362	3,929,404	38,687,575
Total	265,151	9,411	64,272	338,834	37,062,384	1,596,933	5,014,855	43,674,173

Table 17 - Persons Employed by Gender (February 2019)

	C8	kΑ	E8	dD.	P	M	Tot	tal
Gender	Persons	%	Persons	%	Persons	%	Persons	%
Residents								
Female	180	10.9%	8	29.6%	107	23.7%	295	13.8%
Male	1,474	89.1%	19	70.4%	345	76.3%	1,838	86.2%
Total	1,654	100%	27	100%	452	100%	2,133	100%
Non Residents								
Female	13	14.0%	1	2.7%	5	8.8%	19	10.2%
Male	80	86.0%	36	97.3%	52	91.2%	168	89.8%
Total	93	100%	37	100%	57	100%	187	100%
Summary								
Female	193	11.0%	9	14.1%	112	22.0%	314	13.5%
Male	1,554	89.0%	55	85.9%	397	78.0%	2,006	86.5%
Total	1,747	100%	64	100%	509	100%	2,320	100%

9.0 Expenditures and Procurement

Expenditures are captured through direct entry of expenditure breakdowns by contractors which enter directly into the benefits system. For all other contractors, a listing of payments approved during the month from the project's financial accounting system is used. In all cases, expenditure totals are those that are approved for payment during the month.

9.1 Expenditures by Location of Company and Industry Category

Table 18 - Total Value of Expenditures by Location of Company and Industry Category (\$CDN; February 2019)

Industry	Labrador	Newfoundland	Other Canada	Non- Canadian	Totals
Accommodation and Food Services	20,333	3,040,741	3,366	-	3,064,440
Administrative and Support, Waste Management and Remediation Services	4,593	1,026	1	-	5,619
Agriculture, Forestry, Fishing and Hunting	-	-	-	-	-
Arts, Entertainment and Recreation	-	1,500	ı	-	1,500
Construction	11,146,752	8,984,989	2,614,556	-	22,746,297
Educational Services	-	-	-	-	-
Finance and Insurance	-	-	T	141,417	141,417
Health Care and Social Assistance	-	-	284,997	-	284,997
Information and Cultural Industries	-	954	11,378	37,311	49,642
Management of Companies and Enterprises	-	-		-	-
Manufacturing	-	386,711	9,875,483	-	10,262,194
Mining, Quarrying, and Oil and Gas Extraction	133,595	=	ı	-	133,595
Other Services, Including Maintenance and Repair	9,100	3,074,506	4,363,484	-	7,447,090
Professional, Scientific and Technical Services	13,400	3,641,117	5,233,283	232,716	9,120,517
Public Administration	3,020	53,980	13,434	-	70,434
Real Estate, Rental and Leasing	3,750	29,422	101,711	-	134,883
Retail Trade	4,008	29,028	899	-	33,935
Transportation and Warehousing	492,923	272,980	15,761	-	781,663
Utilities	-	2,402,191	18,891	-	2,421,082
Wholesale Trade	219,976	28,274	134,256	-	382,506
Grand Total	12,051,450	21,947,419	22,671,498	411,444	57,081,811

Table 19 - Total Value of Expenditures by Location of Company and Industry Category (\$CDN; Project to Date)

Industry	Labrador	Newfoundland	Other Canada	Non- Canadian	Totals
Accommodation and Food Services	3,050,037	243,860,579	18,506,754	139,278	265,556,647
Administrative and Support, Waste Management and Remediation Services	769,651	11,256,324	284,858	7,333	12,318,165
Agriculture, Forestry, Fishing and Hunting	15,240	117,674,074	5,635,780	-	123,325,094
Arts, Entertainment and Recreation	304,621	133,498	44,500	22,611	505,230
Construction	652,695,385	953,837,589	3,504,068,645	50,507,327	5,161,108,945
Educational Services	142,854	563,719	4,943,448	15,580	5,665,600
Finance and Insurance	360,831	49,697,598	36,318,513	5,459,029	91,835,971
Health Care and Social Assistance	4,500	4,765,315	4,591,880	-	9,361,694
Information and Cultural Industries	44,921	1,490,738	3,688,852	3,285,240	8,509,751
Management of Companies and Enterprises	1	1	1	1	•
Manufacturing	8,411,401	35,416,375	779,134,140	263,894,839	1,086,856,754
Mining, Quarrying, and Oil and Gas Extraction	4,317,417	1,495,159	24,831,141	1,200	30,644,917
Other Services, Including Maintenance and Repair	1,077,859	114,583,265	431,393,569	95,409,979	642,464,672
Professional, Scientific and Technical Services	7,494,783	358,822,556	536,293,228	21,480,102	924,090,670
Public Administration	22,953,623	3,881,349	1,550,637	3,170	28,388,779
Real Estate, Rental and Leasing	861,501	934,075	3,065,147	22,500	4,883,223
Retail Trade	1,404,154	15,120,188	816,441	14,619	17,355,402
Transportation and Warehousing	31,855,502	39,293,420	52,801,539	1,365,823	125,316,284
Utilities	751,874	172,905,392	48,131,763	15,531	221,804,559
Wholesale Trade	6,831,576	4,213,314	3,387,985	16,405,931	30,838,806
Totals	743,347,728	2,129,944,526	5,459,488,818	458,050,092	8,790,831,165

9.2 Procurement

Tables 20 - 22 provide details on procurement activities for all components of the Muskrat Falls Project. Appendix B contains a list of all contracts awarded to date since Project Sanction.

Table 20 - Contracts Awarded During February 2019

Package #	Package Title	Award Date	Successful Bidder(s)
CH0011-002	Civil Works Agreement Intake, Powerhouse, Transition Dams & Spillway – Remaining Construction	15 Feb 2019	Pennecon Heavy Civil Limited

Table 21 - Request for Proposals Issued

Package #	Package Title	RFP Issue Status	Qualified Bidders					
	No requests for proposals were issued during February 2019							

Table 22 - Upcoming Request for Proposals (RFP)

Package #	Package Title	Forecasted Bidder Selection Start	Forecasted RFP Issue Date					
	There are currently no upcoming requests for proposals.							

Appendix A – Employment by 4-Digit NOC Code

Table 23 - Person Hours of Employment by 4-Digit NOC Code (February 2019)

		Curren	t Month		Project t	o Date		
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
0016 - Senior Managers - Goods Production, Utilities, Transportation	316		1,502	1,818	132,968	8,008	76,446	217,421
and Construction	210	-	1,502	1,010	132,900	8,008	70,440	217,421
0111 - Financial Managers	524	-	374	898	9,388	-	29,199	38,587
0112 - Human Resources Managers	1,486	64	405	1,955	219,173	21,399	54,555	295,127
0113 - Purchasing Managers	380	-	176	556	18,029	9,932	19,532	47,493
0114 - Other Administrative Services Managers	180	-	168	348	146,565	3,023	40,111	189,699
0124 - Advertising, marketing and public relations managers	-	-	143	143	6,616	-	3,214	9,830
0125 - Other Business Services Managers	-	-	416	416	22,626	137	57,782	80,545
0211 - Engineering Managers	179	351	1,336	1,866	80,160	74,088	162,878	317,126
0213 - Computer and Information Systems Managers	-	124	160	284	11,259	11,625	27,559	50,443
0711 - Construction Managers	2,405	-	3,417	5,822	666,728	12,249	250,086	929,063
1111 - Financial Auditors and Accountants	240	-	231	471	37,546	1,658	26,477	65,680
1114 - Other Financial Officers	679	-	1,806	2,485	15,140	3,073	106,511	124,724
1121 - Human Resources professionals	709	-	1,399	2,108	120,390	13,547	132,013	265,949
1122 - Professional Occupations in Business management consulting	-	-	-	-	-	-	-	-
1123 - Professional occupations in advertising, marketing and public			F44	544	24.020	24	F2 244	02.204
relations	-	-	511	511	31,030	31	52,241	83,301
1221 - Administrative Officers	111	810	814	1,735	51,619	78,993	57,344	187,956
1223 - Human resources and Recruitment Officers	-	-	150	150	3,058	3,741	24,943	31,741
1225 - Purchasing Agents and Officers	1,775	-	3,096	4,871	173,843	65,509	365,123	604,475
1241 - Administrative Assistants	1,971	160	1,990	4,121	366,497	39,861	174,699	581,057
1311 - Accounting technicians and bookkeepers	383	64	1,441	1,888	105,212	15,408	136,015	256,634
1411 - General Office support workers	1,778	-	169	1,947	320,503	72	1,423	321,998
1431 - Accounting and Related Clerks	-	-	150	150	1,325	-	3,451	4,775
2113 - Geologists, Geochemists and Geophysicists	-	6	-	6	7,849	12,446	15,145	35,439
2131 - Civil Engineers	2,185	710	2,795	5,690	536,153	224,725	337,026	1,097,904
2132 - Mechanical Engineers	2,277	478	4,527	7,282	103,765	64,737	208,476	376,977
2133 - Electrical and Electronics Engineers	484	1,660	4,798	6,942	105,445	212,030	264,524	581,999
2141 - Industrial and Manufacturing Engineers	3,760	-	3,686	7,446	493,475	19,202	309,532	822,208
2144 - Geological Engineers	-	-	-	-	3,647	29,407	7,836	40,889
2147 - Computer Engineers (Except Software Engineers and Designers)	-	-	143	143	4,449	11,503	3,913	19,864
2148 - Other Professional Engineers, n.e.c.	434	2,138	5,079	7,651	278,756	108,707	407,798	795,261
2151 – Architects	-	-	-	-	320	5,156	-	5,476
2153 - Urban and Land Use Planners	200	-	224	424	14,002	10,793	68,368	93,162
2154 - Land Surveyors	2,492	-	360	2,852	422,628	173	74,001	496,801
2171 - Information Systems Analysts and Consultants	-	141	1,357	1,498	26,152	15,201	91,948	133,300
2221 - Biological Technologists and Technicians	-	-	-	-	-	-		

		Curren	t Month			Project t	o Date	
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
2231 - Civil Engineering Technologists and Technicians	3,617	201	569	4,387	367,144	88,976	76,797	532,917
2232 - Mechanical Engineering Technologists and Technicians	543	-	1,096	1,639	208,205	16,797	25,568	250,571
2234 - Construction Estimators	-	-	220	220	34,034	25,558	28,212	87,803
2241 - Electrical and Electronics Engineering Technologists and	740	270	4.000		44.004	24.507	470.004	245 - 24
Technicians	740	279	4,809	5,828	41,004	34,507	170,991	246,501
2243 - Industrial Instrument Technicians and Mechanics	365	-	-	365	20,262	-	7,994	28,256
2251 - Architectural Technologists and Technicians	290	16	-	306	5,107	5,288	300	10,694
2253 - Drafting Technologists and Technicians	540	676	6	1,222	175,166	77,131	14,649	266,946
2263 - Inspectors in Public and Environmental Health and Occupational	4,389	940	2,605	7,934	543,760	94,216	185,502	823,478
Health and Safety	4,369	940	2,603	7,334	343,760	94,210	165,502	823,478
2264 - Construction Inspectors	-	-	1,268	1,268	85,258	39,919	213,912	339,089
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	75	75	64	80	1,257	1,400
3234 - Paramedical Occupations	2,369	-	-	2,369	295,649	-	4,188	299,837
4112 - Lawyers and Quebec Notaries	-	-	76	76	686	-	5,144	5,830
4161 - Natural and Applied Science Policy Researchers, Consultants and	595	400	1,404	2,399	196,516	104,191	155,537	456,244
Program Officers	393	400	1,404	2,399	190,310	104,131	155,557	430,244
4162 - Economists and Economic Policy Researchers and Analysts	-	-	364	364	1,146	-	28,279	29,425
4169 - Other Professional Occupations in Social Science, n.e.c.	135	-	-	135	28,384	-	41	28,425
4312 – Firefighters	2,038	-	283	2,321	45,470	-	2,963	48,432
6313 - Accommodation, travel, tourism and related services supervisors	936	-	-	936	96,691	-	4,470	101,161
6321 – Chefs	-	-	-	-	1,134	-	-	1,134
6322 – Cooks	1,377	-	-	1,377	185,828	-	3,002	188,830
6541 - Security Guards and Related security service Occupations	7,546	194	-	7,740	580,305	12,364	6,593	599,261
6711 - Food Counter Attendants, Kitchen Helpers and Related support	14,244	_	_	14,244	1,580,276	_	4,142	1,584,418
Occupations	14,244			14,244	1,300,270		7,172	1,304,410
7201 - Contractors and supervisors, machining, metal forming, shaping	4,890	_	3	4,893	300,319	134	8,134	308,587
and erecting trades and related occupations	4,050		3	4,055	300,313	154	0,154	300,307
7202 - Contractors and Supervisors, Electrical Trades and	1,748	_	522	2,269	218,004	57	11,367	229,427
Telecommunications Occupations	,		522	-	,	<i>3.</i>	,	•
7203 - Contractors and Supervisors, Pipefitting Trades	1,095	-	-	1,095	79,526	-	705	80,231
7204 - Contractors and Supervisors, Carpentry Trades	4,521	-	-	4,521	430,309	-	22,152	452,461
7205 - Contractors and Supervisors, Other Construction Trades,	4,257	_	757	5,013	757,972	9,829	36,910	804,710
Installers, Repairers and Servicers	·		757	•		3,023	,	-
7233 - Sheet Metal Workers	2,370	-	-	2,370	106,849	-	1,825	108,674
7234 – Boilermakers	493	-	-	493	42,841	-	-	42,841
7236 – Ironworkers	17,231	-	-	17,231	2,060,554	-	4,014	2,064,568
7237 - Welders and Related Machine Operators	3,397	-	4	3,401	267,615	192	2,401	270,207
7242 - Industrial Electricians	20,664	-	1,429	22,093	1,406,266	1,849	33,028	1,441,143
7244 - Electrical Power Line and Cable Workers	141	-	1,579	1,720	697,931	-	17,641	715,572
7251 – Plumbers	272	-	-	272	77,461	-	3,684	81,145
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	4,357	-	-	4,357	338,130	280	619	339,029

		Current	Month			Project t	o Date	
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
7271 – Carpenters	37,350	-	-	37,350	5,094,408	448	73,162	5,168,018
7281 – Bricklayers	18,531	-	-	18,531	435,467	-	8,957	444,424
7293 – Insulators	258	-	-	258	17,991	-	-	17,991
7294 - Painters and Decorators (except interior decorators)	134	-	-	134	55,791	-	137	55,928
7301 - Contractors and supervisors, mechanic trades	1,319	-	-	1,319	97,347	-	358	97,705
7302 - Contractors and supervisors, heavy equipment operator crews	1,903	-	-	1,903	351,438	-	5,678	357,115
7311 - Construction Millwrights and Industrial Mechanics	9,210	-	1,969	11,179	170,653	-	26,761	197,413
7312 - Heavy- Duty Equipment Mechanics	3,282	-	20	3,302	683,511	1,033	2,554	687,098
7371 - Crane Operators	5,164	-	-	5,164	658,668	-	11,724	670,392
7372 - Drillers and Blasters - Surface Mining, Quarrying and					210 057	1 160	182	212 100
Construction	-	-	-	-	210,857	1,160	182	212,198
7384 - Other Trades and Related Occupations, n.e.c.	-	-	-	-	29,471	-	139	29,610
7452 - Material Handlers	2,267	-	174	2,441	316,113	48	24,791	340,952
7511 - Transport Truck Drivers	9,964	-	7	9,971	1,886,569	689	27,496	1,914,753
7512 - Bus Drivers, Subway Operators and Other Transit Operators	3,233	-	-	3,233	290,516	-	1,539	292,055
7521 - Heavy Equipment Operators (Except Crane)	11,369	-	6	11,375	3,665,429	1,457	83,013	3,749,899
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	-	-	678	-	-	678
7611 - Construction Trades Helpers and Labourers	4,617	-	7	4,624	1,096,028	189	45,108	1,141,325
7612 - Other Trades Helpers and Labourers	26,082	-	532	26,614	5,455,677	3,807	65,275	5,524,758
8211 - Supervisors, Logging and Forestry	-	-	-	-	58,359	-	700	59,059
8241 - Logging Machinery Operators	- 1	-	-	-	483,992	-	6,996	490,988
8616 - Logging and Forestry Labourers	-	-	-	-	80,937	60	6,723	87,720
9241 - Power Engineers and power system operators	366	-	1,671	2,037	37,001	-	24,941	61,942
All Occupation Codes	265,151	9,411	64,272	338,834	36,989,079	1,596,682	5,088,411	43,674,172

Table 24 - Residents Hired by 4-Digit NOC Code (February 2019)

		C&A			E&D			PM			Total	
		Total	Res as %									
4-Digit NOC Code	Res	Persons	of Total									
0016 - Senior Managers - Goods Production, Utilities,	3	3	100%	_	_	0%	8	11	73%	11	14	79%
Transportation and Construction												
0111 - Financial Managers	1	4	25%	-	-	0%	6	6	100%	7	10	70%
0112 - Human Resources Managers	10	10	100%	1	1	100%	4	4	100%	15	15	100%
0113 - Purchasing Managers	1	2	50%	-	-	0%	1	1	100%	2	3	67%
0114 - Other Administrative Services Managers	1	1	100%	-	-	0%	2	2	100%	3	3	100%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	1	1	100%	1	1	100%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	3	4	75%	3	4	75%
0211 - Engineering Managers	3	3	100%	-	2	0%	10	11	91%	13	16	81%
0213 - Computer and Information Systems Managers	-	-	0%	1	1	100%	1	1	100%	2	2	100%
0711 - Construction Managers	11	15	73%	-	-	0%	15	20	75%	26	35	74%
1111 - Financial Auditors and Accountants	-	2	0%	-	-	0%	3	3	100%	3	5	60%
1114 - Other Financial Officers	3	4	75%	-	-	0%	13	13	100%	16	17	94%
1121 - Human Resources professionals	4	4	100%	-	-	0%	10	10	100%	14	14	100%
1122 - Professional Occupations in Business management			0%			0%			0%			0%
consulting	_	-	070	_	-	0/6	_	-	0/0	-	-	U/0
1123 - Professional occupations in advertising, marketing	_	_	0%	_	_	0%	4	4	100%	4	4	100%
and public relations										·		
1221 - Administrative Officers	1	2	50%	5	5	100%	5	5	100%	11	12	92%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	1	0%	-	1	0%
1225 - Purchasing Agents and Officers	6	11	55%	-	-	0%	15	21	71%	21	32	66%
1241 - Administrative Assistants	9	14	64%	1	1	100%	14	15	93%	24	30	80%
1311 - Accounting technicians and bookkeepers	1	3	33%	1	1	100%	13	13	100%	15	17	88%
1411 - General Office support workers	11	11	100%	-	-	0%	2	2	100%	13	13	100%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	1	1	100%	1	1	100%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	2	0%	-	-	0%	-	2	0%
2131 - Civil Engineers	13	14	93%	2	6	33%	18	19	95%	33	39	85%
2132 - Mechanical Engineers	5	12	42%	2	5	40%	21	28	75%	28	45	62%
2133 - Electrical and Electronics Engineers	1	3	33%	1	12	8%	27	38	71%	29	53	55%
2141 - Industrial and Manufacturing Engineers	10	21	48%	-	-	0%	17	22	77%	27	43	63%
2144 - Geological Engineers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2147 - Computer Engineers (Except Software Engineers and Designers)	-	-	0%	-	-	0%	1	1	100%	1	1	100%
2148 - Other Professional Engineers, n.e.c.	2	4	50%	1	10	10%	32	38	84%	35	52	67%

		C&A			E&D			PM			Total	
		Total	Res as %									
4-Digit NOC Code	Res	Persons	of Total									
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	2	2	100%	2	3	67%
2154 - Land Surveyors	18	18	100%	-	-	0%	2	2	100%	20	20	100%
2171 - Information Systems Analysts and Consultants	-	-	0%	1	1	100%	13	13	100%	14	14	100%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	18	20	90%	1	2	50%	7	8	88%	26	30	87%
2232 - Mechanical Engineering Technologists and	3	3	100%			0%	6	6	100%	9	9	100%
Technicians	3	3	100%	-	-	0%	0	O	100%	9	9	100%
2234 - Construction Estimators	-	-	0%	-	-	0%	1	1	100%	1	1	100%
2241 - Electrical and Electronics Engineering Technologists	4	4	100%	1	1	100%	39	41	95%	44	46	96%
and Technicians	-	•		_	_							
2243 - Industrial Instrument Technicians and Mechanics	1	2	50%	-	-	0%	-	-	0%	1	2	50%
2251 - Architectural Technologists and Technicians	1	2	50%	1	1	100%	-	-	0%	2	3	67%
2253 - Drafting Technologists and Technicians	2	4	50%	1	4	25%	1	1	100%	4	9	44%
2263 - Inspectors in Public and Environmental Health and	20	24	83%	4	4	100%	14	16	88%	38	44	86%
Occupational Health and Safety			00/			00/	_	7	710/	_	-	740/
2264 - Construction Inspectors	-	-	0%	-	-	0% 0%	5	7	71%	5	7	71%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-		0%	-	-	0%	5	5	100%	5	5	100%
3234 - Paramedical Occupations	13	14	93%	-	-	0%	-	-	0%	13	14	93%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	3	3	100%	3	3	100%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	1	4	25%	2	4	50%	11	11	100%	14	19	74%
4162 - Economists and Economic Policy Researchers and												
Analysts	-	-	0%	-	-	0%	3	3	100%	3	3	100%
4169 - Other Professional Occupations in Social Science,		_								_		
n.e.c.	1	1	100%	-	-	0%	-	-	0%	1	1	100%
4312 - Firefighters	12	12	100%	-	-	0%	1	1	100%	13	13	100%
6313 - Accommodation, travel, tourism and related	1	4	25%			0%			0%	1	4	25%
services supervisors	1	4	25%	-	-	0%	-	-	U%	1	4	25%
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	8	8	100%	-	-	0%	-	-	0%	8	8	100%
6541 - Security Guards and Related security service	50	51	98%	1	1	100%	_	_	0%	51	52	98%
Occupations	30	31	3676	1	1	100/6			076	31	32	3070
6711 - Food Counter Attendants, Kitchen Helpers and	105	105	100%	-	-	0%	-	-	0%	105	105	100%
Related support Occupations												
7201 - Contractors and supervisors, machining, metal	22	26	0.0/			00/	1	1	1000/	22	27	OF0/
forming, shaping and erecting trades and related	22	26	85%	-	-	0%	1	1	100%	23	27	85%
occupations							l					

		C&A			E&D			PM			Total	
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
4-Digit NOC Code	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
7202 - Contractors and Supervisors, Electrical Trades and	11	11	100%			0%	4	5	80%	15	16	94%
Telecommunications Occupations	11	11	100%	_	-	0/6	4	J	8076	13	10	J4/0
7203 - Contractors and Supervisors, Pipefitting Trades	6	6	100%	-	-	0%	-	-	0%	6	6	100%
7204 - Contractors and Supervisors, Carpentry Trades	25	27	93%	-	-	0%	-	-	0%	25	27	93%
7205 - Contractors and Supervisors, Other Construction	16	21	76%	_	_	0%	8	8	100%	24	29	83%
Trades, Installers, Repairers and Servicers												
7233 - Sheet Metal Workers	13	13	100%	-	-	0%	-	-	0%	13	13	100%
7234 - Boilermakers	3	3	100%	-	-	0%	-	-	0%	3	3	100%
7236 - Ironworkers	108	112	96%	-	-	0%	-	-	0%	108	112	96%
7237 - Welders and Related Machine Operators	18	19	95%	-	-	0%	1	1	100%	19	20	95%
7242 - Industrial Electricians	144	144	100%	-	-	0%	12	13	92%	156	157	99%
7244 - Electrical Power Line and Cable Workers	1	1	100%	-	-	0%	21	21	100%	22	22	100%
7251 - Plumbers	2	2	100%	-	-	0%	-	-	0%	2	2	100%
7252 - Steamfitters, Pipefitters and Sprinkler System	33	35	94%			0%		_	0%	33	35	94%
Installers	33	33	94%	_		U%	_		U%	33	33	94%
7271 - Carpenters	239	244	98%	-	-	0%	-	-	0%	239	244	98%
7281 - Bricklayers	132	133	99%	-	-	0%	-	-	0%	132	133	99%
7293 - Insulators	2	2	100%	-	-	0%	-	-	0%	2	2	100%
7294 - Painters and Decorators (except interior	2	2	100%			0%		_	0%	2	2	100%
decorators)	2	2	100%	-		0%	-	-	0%	2	2	100%
7301 - Contractors and supervisors, mechanic trades	10	10	100%	-	-	0%	-	-	0%	10	10	100%
7302 - Contractors and supervisors, heavy equipment	12	12	100%	_		0%	_	_	0%	12	12	100%
operator crews	12	12	100/6			076	_		076	12	12	100%
7311 - Construction Millwrights and Industrial Mechanics	68	69	99%	-	-	0%	11	11	100%	79	80	99%
7312 - Heavy- Duty Equipment Mechanics	20	21	95%	-	-	0%	2	2	100%	22	23	96%
7371 - Crane Operators	32	32	100%	-	-	0%	-	-	0%	32	32	100%
7372 - Drillers and Blasters - Surface Mining, Quarrying	_	_	0%	_	_	0%	_	_	0%	_	_	0%
and Construction			070			0/0			070	_	_	0,0
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	16	16	100%	-	-	0%	4	4	100%	20	20	100%
7511 - Transport Truck Drivers	59	60	98%	-	-	0%	1	1	100%	60	61	98%
7512 - Bus Drivers, Subway Operators and Other Transit	23	23	100%	_	_	0%	_	_	0%	23	23	100%
Operators		23	100/0						3 /0	23	23	
7521 - Heavy Equipment Operators (Except Crane)	75	75	100%	-	-	0%	2	2	100%	77	77	100%
7533 - Boat and Cable Ferry Operators and Related	_	_	0%	_	_	0%	_	_	0%	-	_	0%
Occupations												
7611 - Construction Trades Helpers and Labourers	28	28	100%	-	-	0%	2	2	100%	30	30	100%
7612 - Other Trades Helpers and Labourers	177	177	100%	-	-	0%	9	9	100%	186	186	100%

		C&A			E&D			PM		Total		
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
4-Digit NOC Code	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators	3	3	100%	-	-	0%	14	14	100%	17	17	100%
Totals	1,654	1,747	95%	27	64	42%	452	509	89%	2,133	2,320	92%

Table 25 - Female Workers Hired by 4-Digit NOC Code (February 2019)

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
		Total	as % of		Total	as % of	Female	Total	as % of		Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
0016 - Senior Managers - Goods Production, Utilities,	1	3	33%	-	_	0%	1	11	9%	2	14	14%
Transportation and Construction			=00/			00/	_	-	220/		40	400/
0111 - Financial Managers	2	4	50%	-	-	0%	2	6	33%	4	10	40%
0112 - Human Resources Managers	1	10	10%	1	1	100%	2	4	50%	4	15	27%
0113 - Purchasing Managers	-	2	0%	-	-	0%	-	1	0%	-	3	0%
0114 - Other Administrative Services Managers	1	1	100%	-	-	0%	1	2	50%	2	3	67%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	1	1	100%	1	1	100%
0125 - Other Business Services Managers	_	-	0%	-	-	0%	2	4	50%	2	4	50%
0211 - Engineering Managers	1	3	33%	-	2	0%	1	11	9%	2	16	13%
0213 - Computer and Information Systems Managers	-	-	0%	-	1	0%	-	1	0%	-	2	0%
0711 - Construction Managers	_	15	0%	-	-	0%	-	20	0%	-	35	0%
1111 - Financial Auditors and Accountants	1	2	50%	-	-	0%	-	3	0%	1	5	20%
1114 - Other Financial Officers	3	4	75%	-	_	0%	8	13	62%	11	17	65%
1121 - Human Resources professionals	2	4	50%	-	_	0%	3	10	30%	5	14	36%
1122 - Professional Occupations in Business management			20/			00/			20/			201
consulting	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1123 - Professional occupations in advertising, marketing		_	0%	_	_	0%	3	4	75%	3	4	75%
and public relations	-		070	_		0/6	3	4	73/0	3	-	75/0
1221 - Administrative Officers	2	2	100%	5	5	100%	4	5	80%	11	12	92%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	1	0%	-	1	0%
1225 - Purchasing Agents and Officers	5	11	45%	-	-	0%	8	21	38%	13	32	41%
1241 - Administrative Assistants	11	14	79%	1	1	100%	12	15	80%	24	30	80%
1311 - Accounting technicians and bookkeepers	2	3	67%	-	1	0%	13	13	100%	15	17	88%
1411 - General Office support workers	10	11	91%	-	-	0%	2	2	100%	12	13	92%
1431 - Accounting and Related Clerks	_	-	0%	-	-	0%	1	1	100%	1	1	100%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	2	0%	-	-	0%	-	2	0%
2131 - Civil Engineers	1	14	7%	-	6	0%	6	19	32%	7	39	18%
2132 - Mechanical Engineers	3	12	25%	1	5	20%	6	28	21%	10	45	22%
2133 - Electrical and Electronics Engineers	-	3	0%	-	12	0%	8	38	21%	8	53	15%
2141 - Industrial and Manufacturing Engineers	1	21	5%	-	-	0%	3	22	14%	4	43	9%
2144 - Geological Engineers	-	-	0%	-	-	0%	-	-	0%	_	-	0%
2147 - Computer Engineers (Except Software Engineers			00/			00/		4	1000/	_		100°/
and Designers)	_	-	0%	-	-	0%	1	1	100%	1	1	100%
2148 - Other Professional Engineers, n.e.c.	-	4	0%	1	10	10%	4	38	11%	5	52	10%

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
A Pitta Noc Calle	e a constant	Total	as % of	e a constant	Total	as % of	Female	Total	as % of	Familia.	Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	2	0%	-	3	0%
2154 - Land Surveyors	-	18	0%	-	-	0%	-	2	0%	-	20	0%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	1	0%	2	13	15%	2	14	14%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	4	20	20%	-	2	0%	-	8	0%	4	30	13%
2232 - Mechanical Engineering Technologists and	_	3	0%	_	_	0%	2	6	33%	2	9	22%
Technicians	_	3	070			070		U	33/6	_	3	22/0
2234 - Construction Estimators	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2241 - Electrical and Electronics Engineering Technologists	_	4	0%	_	1	0%	2	41	5%	2	46	4%
and Technicians					-		_	71		_		
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	2	0%	-	1	0%	-	-	0%	-	3	0%
2253 - Drafting Technologists and Technicians	2	4	50%	-	4	0%	-	1	0%	2	9	22%
2263 - Inspectors in Public and Environmental Health and	6	24	25%		4	0%	4	16	25%	10	44	23%
Occupational Health and Safety	U	24	23/0		4	070	1	10	23/0	10	77	23/0
2264 - Construction Inspectors	-	-	0%	-	-	0%	-	7	0%	-	7	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	-	5	0%	-	5	0%
3234 - Paramedical Occupations	4	14	29%	-	-	0%	-	-	0%	4	14	29%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	1	3	33%	1	3	33%
4161 - Natural and Applied Science Policy Researchers,	1	4	250/		4	0%	4	11	36%	5	19	26%
Consultants and Program Officers	1	4	25%	-	4	U%	4	11	30%)	19	20%
4162 - Economists and Economic Policy Researchers and		_	0%			0%	2	3	67%	2	3	67%
Analysts	_	-	0/0	_	-	0/6		3	07/0		3	07/6
4169 - Other Professional Occupations in Social Science,	1	1	100%	_	_	0%	_	_	0%	1	1	100%
n.e.c.			100/0							_		100/0
4312 - Firefighters	1	12	8%	-	-	0%	-	1	0%	1	13	8%
6313 - Accommodation, travel, tourism and related	_	4	0%	_	_	0%	_	_	0%	_	4	0%
services supervisors		7									-	070
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	2	8	25%	-	-	0%	-	-	0%	2	8	25%
6541 - Security Guards and Related security service	8	51	16%	_	1	0%	_	_	0%	8	52	15%
Occupations		51	10/0		_	3 /0			3 /0		32	13/0
6711 - Food Counter Attendants, Kitchen Helpers and	54	105	51%	_	_	0%	_	_	0%	54	105	51%
Related support Occupations	J 1]		2_/0

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
		Total	as % of		Total	as % of	Female	Total	as % of		Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
7201 - Contractors and supervisors, machining, metal												
forming, shaping and erecting trades and related	-	26	0%	-	-	0%	-	1	0%	-	27	0%
occupations												
7202 - Contractors and Supervisors, Electrical Trades and	_	11	0%	_	_	0%	_	5	0%	_	16	0%
Telecommunications Occupations								3			-	
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	27	0%	-	-	0%	-	-	0%	-	27	0%
7205 - Contractors and Supervisors, Other Construction	_	21	0%	_	_	0%	_	8	0%	_	29	0%
Trades, Installers, Repairers and Servicers		21	070			0/0		O	0/0		23	070
7233 - Sheet Metal Workers	1	13	8%	-	-	0%	-	-	0%	1	13	8%
7234 - Boilermakers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7236 - Ironworkers	5	112	4%	-	-	0%	-	-	0%	5	112	4%
7237 - Welders and Related Machine Operators	-	19	0%	-	-	0%	-	1	0%	-	20	0%
7242 - Industrial Electricians	3	144	2%	-	-	0%	1	13	8%	4	157	3%
7244 - Electrical Power Line and Cable Workers	-	1	0%	-	-	0%	-	21	0%	-	22	0%
7251 - Plumbers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7252 - Steamfitters, Pipefitters and Sprinkler System		25	00/			00/			00/		25	00/
Installers	-	35	0%	-	-	0%	-	-	0%	-	35	0%
7271 - Carpenters	8	244	3%	-	-	0%	-	-	0%	8	244	3%
7281 - Bricklayers	10	133	8%	-	-	0%	-	-	0%	10	133	8%
7293 - Insulators	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7294 - Painters and Decorators (except interior		2	00/			00/			00/		2	00/
decorators)	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7301 - Contractors and supervisors, mechanic trades	-	10	0%	-	-	0%	-	-	0%	-	10	0%
7302 - Contractors and supervisors, heavy equipment		12	0%			0%			0%		12	0%
operator crews	_	12	U%	_	-	0%	_	-	U%	-	12	0%
7311 - Construction Millwrights and Industrial Mechanics	6	69	9%	-	-	0%	1	11	9%	7	80	9%
7312 - Heavy- Duty Equipment Mechanics	-	21	0%	-	-	0%	-	2	0%	-	23	0%
7371 - Crane Operators	2	32	6%	-	-	0%	-	-	0%	2	32	6%
7372 - Drillers and Blasters - Surface Mining, Quarrying		_	0%			0%			0%			0%
and Construction	-	-	U %	-	-	U%	_	-	U%	_	-	U %
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	1	16	6%	-	-	0%	1	4	25%	2	20	10%
7511 - Transport Truck Drivers	1	60	2%	-	-	0%	-	1	0%	1	61	2%
7512 - Bus Drivers, Subway Operators and Other Transit		23	0%			0%			00/		22	00/
Operators	_	23	υ%	_	-	U%	_	-	0%	_	23	0%
7521 - Heavy Equipment Operators (Except Crane)	3	75	4%	-	-	0%	-	2	0%	3	77	4%

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
		Total	as % of		Total	as % of	Female	Total	as % of		Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
7533 - Boat and Cable Ferry Operators and Related		_	0%			0%			0%			0%
Occupations		_	070	_	_	0/0	_	_	0/0	_	_	0/0
7611 - Construction Trades Helpers and Labourers	2	28	7%	-	-	0%	-	2	0%	2	30	7%
7612 - Other Trades Helpers and Labourers	21	177	12%	-	-	0%	-	9	0%	21	186	11%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators	-	3	0%	-	-	0%		14	0%	-	17	0%
Totals	193	1,747	11%	9	64	14%	112	509	22%	314	2,320	14%

Table 26 - Aboriginal Workers by 4-Digit NOC Code (February 2019)

	C&A				E&D			PM		Total		
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
0016 - Senior Managers - Goods Production, Utilities,	_	3	0%	_	_	0%	_	11	0%	-	14	0%
Transportation and Construction			0,1									• • • • • • • • • • • • • • • • • • • •
0111 - Financial Managers	-	4	0%	-	-	0%	-	6	0%	-	10	0%
0112 - Human Resources Managers	3	10	30%	-	1	0%	-	4	0%	3	15	20%
0113 - Purchasing Managers	-	2	0%	-	-	0%	-	1	0%	-	3	0%
0114 - Other Administrative Services Managers	-	1	0%	-	-	0%	-	2	0%	-	3	0%
0124 - Advertising, marketing and public relations	-	-	0%	-	-	0%	_	1	0%	-	1	0%
managers			00/			00/		4	00/			00/
0125 - Other Business Services Managers	-	-	0%	-	-	0%	-	4	0%	-	4	0%
0211 - Engineering Managers	-	3	0%	-	2	0%	-	11	0%	-	16	0%
0213 - Computer and Information Systems Managers	-	-	0%	-	1	0%	-	1	0%	-	2	0%
0711 - Construction Managers	-	15	0%	-	-	0%	-	20	0%	-	35	0%
1111 - Financial Auditors and Accountants	-	2	0%	-	-	0%	-	3	0%	-	5	0%
1114 - Other Financial Officers	-	4	0%	-	-	0%	-	13	0%	-	17	0%
1121 - Human Resources professionals	-	4	0%	-	-	0%	3	10	30%	3	14	21%
1122 - Professional Occupations in Business management	-	-	0%	-	-	0%	-	-	0%	-	-	0%
consulting 1123 - Professional occupations in advertising, marketing and public relations	1	-	0%	-	-	0%	-	4	0%	1	4	0%
1221 - Administrative Officers	1	2	50%	-	5	0%	-	5	0%	1	12	8%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	1	0%	-	1	0%
1225 - Purchasing Agents and Officers	1	11	9%	-	-	0%	-	21	0%	1	32	3%
1241 - Administrative Assistants	1	14	7%	-	1	0%	-	15	0%	1	30	3%
1311 - Accounting technicians and bookkeepers	-	3	0%	-	1	0%	-	13	0%	-	17	0%
1411 - General Office support workers	3	11	27%	-	-	0%	-	2	0%	3	13	23%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	2	0%	-	-	0%	-	2	0%
2131 - Civil Engineers	1	14	7%	-	6	0%	-	19	0%	1	39	3%
2132 - Mechanical Engineers	2	12	17%	1	5	20%	-	28	0%	3	45	7%
2133 - Electrical and Electronics Engineers	-	3	0%	-	12	0%	-	38	0%	-	53	0%
2141 - Industrial and Manufacturing Engineers	-	21	0%	-	-	0%	1	22	5%	1	43	2%
2144 - Geological Engineers	-	-	0%	-	-	0%	-	-	0%	-	-	0%

	C&A				E&D			PM			Total	
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
2147 - Computer Engineers (Except Software Engineers	-	_	0%	_	-	0%	_	1	0%	-	1	0%
and Designers)		_										
2148 - Other Professional Engineers, n.e.c.	-	4	0%	-	10	0%	-	38	0%	-	52	0%
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	2	0%	-	3	0%
2154 - Land Surveyors	3	18	17%	-	-	0%	-	2	0%	3	20	15%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	1	0%	1	13	8%	1	14	7%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	-	20	0%	-	2	0%	1	8	13%	1	30	3%
2232 - Mechanical Engineering Technologists and Technicians	1	3	33%	-	-	0%	-	6	0%	1	9	11%
2234 - Construction Estimators	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2241 - Electrical and Electronics Engineering Technologists and Technicians	-	4	0%	-	1	0%	1	41	2%	1	46	2%
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	2	0%	-	1	0%	-	-	0%	-	3	0%
2253 - Drafting Technologists and Technicians	-	4	0%	-	4	0%	-	1	0%	-	9	0%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	-	24	0%	-	4	0%	1	16	6%	1	44	2%
2264 - Construction Inspectors	-	-	0%	-	-	0%	-	7	0%	-	7	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	-	5	0%		5	0%
3234 - Paramedical Occupations	-	14	0%	-	-	0%	-	-	0%	-	14	0%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	-	3	0%	-	3	0%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	-	4	0%	1	4	25%	-	11	0%	1	19	5%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	-	3	0%	-	3	0%
4169 - Other Professional Occupations in Social Science,	1	1	100%	-	-	0%	-	-	0%	1	1	100%
4312 - Firefighters	_	12	0%	-	_	0%	-	1	0%	-	13	0%
6313 - Accommodation, travel, tourism and related	-	4	0%	-	-	0%	_	-	0%	-	4	0%
services supervisors			00/			00/			00/			00/
6321 - Chefs		-	0%	-	-	0% 0%	-	-	0% 0%	-	-	0%
6322 - Cooks	1	8	13%	-	-	0%	_	-	0%	1	8	13%

	C&A			E&D			PM			Total		
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
6541 - Security Guards and Related security service	5	51	10%	-	1	0%	_	-	0%	5	52	10%
Occupations 6711 - Food Counter Attendants, Kitchen Helpers and												
Related support Occupations	38	105	36%	-	-	0%	-	-	0%	38	105	36%
7201 - Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	1	26	4%	-	-	0%	-	1	0%	1	27	4%
7202 - Contractors and Supervisors, Electrical Trades and Telecommunications Occupations	1	11	9%	1	-	0%	-	5	0%	1	16	6%
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	1	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	1	27	4%	-	-	0%	-	-	0%	1	27	4%
7205 - Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers	-	21	0%	-	-	0%	-	8	0%	-	29	0%
7233 - Sheet Metal Workers	-	13	0%	-	-	0%	-	-	0%	-	13	0%
7234 - Boilermakers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7236 - Ironworkers	3	112	3%	-	-	0%	-	-	0%	3	112	3%
7237 - Welders and Related Machine Operators	1	19	5%	-	-	0%	-	1	0%	1	20	5%
7242 - Industrial Electricians	10	144	7%	-	-	0%	-	13	0%	10	157	6%
7244 - Electrical Power Line and Cable Workers	-	1	0%	-	-	0%	-	21	0%	-	22	0%
7251 - Plumbers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	5	35	14%	-	-	0%	-	-	0%	5	35	14%
7271 - Carpenters	19	244	8%	1	-	0%	-	-	0%	19	244	8%
7281 - Bricklayers	9	133	7%	-	-	0%	-	-	0%	9	133	7%
7293 - Insulators	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7294 - Painters and Decorators (except interior		2	0%			0%			0%		2	0%
decorators)	_	2	0/6	-	-	U/0	_	-	0/6	-	2	U/6
7301 - Contractors and supervisors, mechanic trades	-	10	0%	-	-	0%	-	-	0%	-	10	0%
7302 - Contractors and supervisors, heavy equipment operator crews	1	12	8%	-	-	0%	-	-	0%	1	12	8%
7311 - Construction Millwrights and Industrial Mechanics	2	69	3%	-	-	0%	-	11	0%	2	80	3%
7312 - Heavy- Duty Equipment Mechanics	3	21	14%	-	-	0%	-	2	0%	3	23	13%
7371 - Crane Operators	3	32	9%	-	-	0%	-	-	0%	3	32	9%
7372 - Drillers and Blasters - Surface Mining, Quarrying and Construction	-	-	0%	-	-	0%	-	-	0%	-	-	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	1	16	6%	-	-	0%	-	4	0%	1	20	5%
7511 - Transport Truck Drivers	14	60	23%	-	-	0%	-	1	0%	14	61	23%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	5	23	22%	1	-	0%	ı	-	0%	5	23	22%
7521 - Heavy Equipment Operators (Except Crane)	12	75	16%	1	-	0%	-	2	0%	12	77	16%
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	10	28	36%	-	-	0%	-	2	0%	10	30	33%
7612 - Other Trades Helpers and Labourers	82	177	46%	-	-	0%	-	9	0%	82	186	44%
8211 - Supervisors, Logging and Forestry	-	-	0%	1	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators		3	0%	-		0%		14	0%	-	17	0%
Totals	244	1,747	14%	2	64	3%	8	509	2%	254	2,320	11%

Table 27 - Labrador Residents by 4-Digit NOC Code (February 2019)

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
0016 - Senior Managers - Goods Production, Utilities,	_	3	0%	_	_	0%	1	11	9%	1	14	7%
Transportation and Construction							_			_		-
0111 - Financial Managers	-	4	0%	-	-	0%	-	6	0%	-	10	0%
0112 - Human Resources Managers	3	10	30%	-	1	0%	1	4	25%	4	15	27%
0113 - Purchasing Managers	-	2	0%	-	-	0%	-	1	0%	-	3	0%
0114 - Other Administrative Services Managers	-	1	0%	-	-	0%	1	2	50%	1	3	33%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	-	1	0%	-	1	0%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	-	4	0%	-	4	0%
0211 - Engineering Managers	-	3	0%	-	2	0%	1	11	9%	1	16	6%
0213 - Computer and Information Systems Managers	-	-	0%	-	1	0%	-	1	0%	-	2	0%
0711 - Construction Managers	-	15	0%	-	-	0%	1	20	5%	1	35	3%
1111 - Financial Auditors and Accountants	-	2	0%	-	-	0%	-	3	0%	-	5	0%
1114 - Other Financial Officers	-	4	0%	-	-	0%	-	13	0%	-	17	0%
1121 - Human Resources professionals	1	4	25%	-	-	0%	3	10	30%	4	14	29%
1122 - Professional Occupations in Business management consulting	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1123 - Professional occupations in advertising, marketing and public relations	-	-	0%	-	-	0%	-	4	0%	-	4	0%
1221 - Administrative Officers	1	2	50%	-	5	0%	2	5	40%	3	12	25%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	1	0%	-	1	0%
1225 - Purchasing Agents and Officers	1	11	9%	-	-	0%	-	21	0%	1	32	3%
1241 - Administrative Assistants	1	14	7%	-	1	0%	2	15	13%	3	30	10%
1311 - Accounting technicians and bookkeepers	-	3	0%	-	1	0%	-	13	0%	-	17	0%
1411 - General Office support workers	8	11	73%	-	-	0%	1	2	50%	9	13	69%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	2	0%	-	-	0%	-	2	0%
2131 - Civil Engineers	-	14	0%	-	6	0%	1	19	5%	1	39	3%
2132 - Mechanical Engineers	-	12	0%	1	5	20%	-	28	0%	1	45	2%
2133 - Electrical and Electronics Engineers	-	3	0%	-	12	0%	3	38	8%	3	53	6%
2141 - Industrial and Manufacturing Engineers	3	21	14%	-	-	0%	1	22	5%	4	43	9%
2144 - Geological Engineers		<u>-</u>	0%			0%		-	0%	-	<u>-</u>	0%

	C&A				E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
2147 - Computer Engineers (Except Software Engineers			0%			0%		1	0%		1	0%
and Designers)	-	-	U%	_	-	U%	-	1	0%	-	-	U/o
2148 - Other Professional Engineers, n.e.c.	-	4	0%	-	10	0%	2	38	5%	2	52	4%
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	2	0%	-	3	0%
2154 - Land Surveyors	11	18	61%	-	-	0%	-	2	0%	11	20	55%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	1	0%	1	13	8%	1	14	7%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	1	20	5%	-	2	0%	1	8	13%	2	30	7%
2232 - Mechanical Engineering Technologists and Technicians	1	3	33%	-	-	0%	2	6	33%	3	9	33%
2234 - Construction Estimators	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2241 - Electrical and Electronics Engineering Technologists and Technicians	-	4	0%	-	1	0%	14	41	34%	14	46	30%
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	2	0%	-	1	0%	-	-	0%	-	3	0%
2253 - Drafting Technologists and Technicians	1	4	25%	-	4	0%	1	1	100%	2	9	22%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	-	24	0%	1	4	25%	2	16	13%	3	44	7%
2264 - Construction Inspectors	-	-	0%	-	-	0%	-	7	0%	-	7	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	5	5	100%	5	5	100%
3234 - Paramedical Occupations	6	14	43%	-	-	0%	-	-	0%	6	14	43%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	-	3	0%	-	3	0%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	-	4	0%	1	4	25%	1	11	9%	2	19	11%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	-	3	0%	-	3	0%
4169 - Other Professional Occupations in Social Science, n.e.c.	1	1	100%	-	-	0%	-	-	0%	1	1	100%
4312 - Firefighters	_	12	0%	_	_	0%	1	1	100%	1	13	8%
6313 - Accommodation, travel, tourism and related								-		_		
services supervisors	-	4	0%	-	-	0%	-	-	0%	-	4	0%
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	2	8	25%	-	-	0%	-	-	0%	2	8	25%

	C&A			E&D			PM			Total		
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
6541 - Security Guards and Related security service	23	51	45%	1	1	100%	_	_	0%	24	52	46%
Occupations 6711 - Food Counter Attendants, Kitchen Helpers and Related support Occupations	71	105	68%	-	-	0%	-	-	0%	71	105	68%
7201 - Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	1	26	4%	-	-	0%	1	1	100%	2	27	7%
7202 - Contractors and Supervisors, Electrical Trades and Telecommunications Occupations	-	11	0%	-	-	0%	1	5	20%	1	16	6%
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	27	0%	-	-	0%	-	-	0%	-	27	0%
7205 - Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers	2	21	10%	-	-	0%	3	8	38%	5	29	17%
7233 - Sheet Metal Workers	6	13	46%	-	-	0%	-	-	0%	6	13	46%
7234 - Boilermakers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7236 - Ironworkers	17	112	15%	-	-	0%	-	-	0%	17	112	15%
7237 - Welders and Related Machine Operators	2	19	11%	-	-	0%	1	1	100%	3	20	15%
7242 - Industrial Electricians	35	144	24%	-	-	0%	7	13	54%	42	157	27%
7244 - Electrical Power Line and Cable Workers	-	1	0%	-	-	0%	14	21	67%	14	22	64%
7251 - Plumbers	1	2	50%	-	-	0%		-	0%	1	2	50%
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	4	35	11%	-	-	0%	-	-	0%	4	35	11%
7271 - Carpenters	28	244	11%	-	-	0%	-	-	0%	28	244	11%
7281 - Bricklayers	9	133	7%	-	-	0%	-	-	0%	9	133	7%
7293 - Insulators	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7294 - Painters and Decorators (except interior decorators)	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7301 - Contractors and supervisors, mechanic trades	2	10	20%	-	-	0%	-	-	0%	2	10	20%
7302 - Contractors and supervisors, heavy equipment operator crews	-	12	0%	-	-	0%	-	-	0%	-	12	0%
7311 - Construction Millwrights and Industrial Mechanics	8	69	12%	-	-	0%	-	11	0%	8	80	10%
7312 - Heavy- Duty Equipment Mechanics	6	21	29%	-	-	0%	2	2	100%	8	23	35%
7371 - Crane Operators	8	32	25%	-	-	0%	-	-	0%	8	32	25%
7372 - Drillers and Blasters - Surface Mining, Quarrying and Construction	-	-	0%	-	-	0%	-	-	0%	-	-	0%

	C&A			E&D			PM			Total		
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	8	16	50%	-	-	0%	2	4	50%	10	20	50%
7511 - Transport Truck Drivers	31	60	52%	-	-	0%	1	1	100%	32	61	52%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	20	23	87%	-	-	0%	-	-	0%	20	23	87%
7521 - Heavy Equipment Operators (Except Crane)	30	75	40%	-	-	0%	2	2	100%	32	77	42%
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	18	28	64%	-	-	0%	2	2	100%	20	30	67%
7612 - Other Trades Helpers and Labourers	129	177	73%	-	-	0%	7	9	78%	136	186	73%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators	-	3	0%	-	-	0%	4	14	29%	4	17	24%
Totals	500	1,747	29%	4	64	6%	95	509	19%	599	2,320	26%

Table 28 - Labrador Residents Working in Labrador by 4-Digit NOC Code (February 2019)

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
0016 - Senior Managers - Goods Production, Utilities,	_	2	0%	_	_	0%	1	2	50%	1	4	25%
Transportation and Construction								_		_	-	
0111 - Financial Managers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
0112 - Human Resources Managers	2	8	25%	-	-	0%	1	1	100%	3	9	33%
0113 - Purchasing Managers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
0114 - Other Administrative Services Managers	-	1	0%	-	-	0%	1	1	100%	1	2	50%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	-	1	0%	-	1	0%
0211 - Engineering Managers	-	1	0%	-	-	0%	1	1	100%	1	2	50%
0213 - Computer and Information Systems Managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0711 - Construction Managers	-	11	0%	-	-	0%	1	16	6%	1	27	4%
1111 - Financial Auditors and Accountants	-	2	0%	-	-	0%	-	-	0%	-	2	0%
1114 - Other Financial Officers	-	1	0%	-	-	0%	-	3	0%	-	4	0%
1121 - Human Resources professionals	1	3	33%	-	-	0%	3	4	75%	4	7	57%
1122 - Professional Occupations in Business management consulting	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1123 - Professional occupations in advertising, marketing and public relations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1221 - Administrative Officers	1	1	100%	-	-	0%	2	2	100%	3	3	100%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1225 - Purchasing Agents and Officers	1	8	13%	-	-	0%	-	9	0%	1	17	6%
1241 - Administrative Assistants	1	12	8%	-	-	0%	2	3	67%	3	15	20%
1311 - Accounting technicians and bookkeepers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
1411 - General Office support workers	8	11	73%	-	-	0%	1	1	100%	9	12	75%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	-	12	0%	-	-	0%	1	8	13%	1	20	5%
2132 - Mechanical Engineers	-	11	0%	-	-	0%	-	11	0%	-	22	0%
2133 - Electrical and Electronics Engineers	-	3	0%	-	-	0%	3	13	23%	3	16	19%
2141 - Industrial and Manufacturing Engineers	3	19	16%	-	-	0%	1	11	9%	4	30	13%
2144 - Geological Engineers	-	-	0%	-		0%		-	0%		-	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
2147 - Computer Engineers (Except Software Engineers			0%			0%			0%			0%
and Designers)	-	-	U%	-	-	U%	_	-	U%	_	-	U%
2148 - Other Professional Engineers, n.e.c.	-	2	0%	-	-	0%	2	10	20%	2	12	17%
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	-	0%	-	1	0%
2154 - Land Surveyors	11	18	61%	-	-	0%	-	2	0%	11	20	55%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	-	0%	1	3	33%	1	3	33%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	1	19	5%	-	-	0%	1	2	50%	2	21	10%
2232 - Mechanical Engineering Technologists and Technicians	1	3	33%	-	-	0%	2	4	50%	3	7	43%
2234 - Construction Estimators	_	_	0%	_	_	0%	_	_	0%	_	_	0%
2241 - Electrical and Electronics Engineering Technologists												
and Technicians	-	4	0%	-	-	0%	14	18	78%	14	22	64%
2243 - Industrial Instrument Technicians and Mechanics	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2251 - Architectural Technologists and Technicians	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2253 - Drafting Technologists and Technicians	1	4	25%	-	-	0%	1	1	100%	2	5	40%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	-	22	0%	1	3	33%	2	6	33%	3	31	10%
2264 - Construction Inspectors	-	-	0%	-	-	0%	-	4	0%	-	4	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	5	5	100%	5	5	100%
3234 - Paramedical Occupations	6	14	43%	-	-	0%	-	_	0%	6	14	43%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	-	_	0%	-	-	0%
4161 - Natural and Applied Science Policy Researchers,		2	00/		2	E00/	4	2	220/		•	350/
Consultants and Program Officers	-	3	0%	1	2	50%	1	3	33%	2	8	25%
4162 - Economists and Economic Policy Researchers and	_	_	0%	_	_	0%	_	_	0%	_	_	0%
Analysts			0 70									0 /0
4169 - Other Professional Occupations in Social Science,	1	1	100%	-	_	0%	-	_	0%	1	1	100%
n.e.c.								_		_		
4312 - Firefighters	-	10	0%	-	-	0%	1	1	100%	1	11	9%
6313 - Accommodation, travel, tourism and related	-	4	0%	-	-	0%	-	-	0%	-	4	0%
services supervisors			00/			00/			00/			00/
6321 - Chefs	_	-	0% 25%	_	-	0% 0%	_	-	0% 0%	_	-	0% 25%
6322 - Cooks	2	8	25%	-	-	0%	-	-	0%	2	8	25%

	C&A				E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
6541 - Security Guards and Related security service	23	51	45%	1	1	100%	-	_	0%	24	52	46%
Occupations 6711 - Food Counter Attendants, Kitchen Helpers and Related support Occupations	70	104	67%	-	-	0%	-	-	0%	70	104	67%
7201 - Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	1	26	4%	-	-	0%	1	1	100%	2	27	7%
7202 - Contractors and Supervisors, Electrical Trades and Telecommunications Occupations	-	11	0%	-	-	0%	1	1	100%	1	12	8%
7203 - Contractors and Supervisors, Pipefitting Trades	-	6	0%	-	-	0%	-	-	0%	-	6	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	27	0%	-	-	0%	-	-	0%	-	27	0%
7205 - Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers	2	20	10%	-	-	0%	3	4	75%	5	24	21%
7233 - Sheet Metal Workers	6	13	46%	-	-	0%	-	-	0%	6	13	46%
7234 - Boilermakers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7236 - Ironworkers	17	111	15%	-	-	0%	-	-	0%	17	111	15%
7237 - Welders and Related Machine Operators	2	18	11%	-	-	0%	1	1	100%	3	19	16%
7242 - Industrial Electricians	35	140	25%	-	-	0%	7	11	64%	42	151	28%
7244 - Electrical Power Line and Cable Workers	-	1	0%	-	-	0%	14	14	100%	14	15	93%
7251 - Plumbers	1	2	50%	-	-	0%	-	-	0%	1	2	50%
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	4	34	12%	-	-	0%	-	-	0%	4	34	12%
7271 - Carpenters	28	244	11%	-	-	0%	-	-	0%	28	244	11%
7281 - Bricklayers	9	133	7%	-	-	0%	-	-	0%	9	133	7%
7293 - Insulators	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7294 - Painters and Decorators (except interior decorators)	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7301 - Contractors and supervisors, mechanic trades	2	9	22%	-	-	0%	-	-	0%	2	9	22%
7302 - Contractors and supervisors, heavy equipment operator crews	-	12	0%	-	-	0%	-	-	0%	-	12	0%
7311 - Construction Millwrights and Industrial Mechanics	8	68	12%	-	-	0%	-	2	0%	8	70	11%
7312 - Heavy- Duty Equipment Mechanics	6	21	29%	-	-	0%	2	2	100%	8	23	35%
7371 - Crane Operators	8	32	25%	-	-	0%	-	-	0%	8	32	25%
7372 - Drillers and Blasters - Surface Mining, Quarrying and Construction	-	-	0%	-	-	0%	-	-	0%	-	-	0%

	C&A			E&D			PM			Total		
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	8	16	50%	-	-	0%	2	2	100%	10	18	56%
7511 - Transport Truck Drivers	31	60	52%	-	-	0%	1	1	100%	32	61	52%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	20	23	87%	-	-	0%	-	-	0%	20	23	87%
7521 - Heavy Equipment Operators (Except Crane)	30	75	40%	-	-	0%	2	2	100%	32	77	42%
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	18	28	64%	-	-	0%	2	2	100%	20	30	67%
7612 - Other Trades Helpers and Labourers	129	177	73%	-	-	0%	7	8	88%	136	185	74%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators	-	3	0%	-	-	0%	4	6	67%	4	9	44%
Totals	498	1,700	29%	3	6	50%	95	203	47%	596	1,909	31%

Appendix B – Contracts Awarded Since Project Sanction

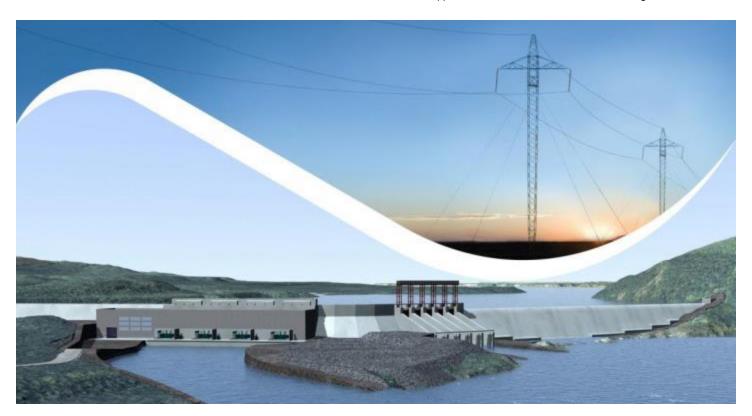
Table 29 - Contracts Awarded Since Project Sanction

Package #	Package Title	Award Date	Successful Bidder(s)
CH0031-001	Supply and Install Mechanical and Electrical	16-Jun-17	Cahill-Ganotec Joint Venture
	Auxiliaries (MF)		
CH0052-002	Muskrat Falls Habitat Compensation Works	18-Aug-2016	Johnsons Construction Limited
CH0049-004	Installation of Debris/Ice/Safety Boom	18-Jul-2016	Johnson's Construction Limited
CT0327-024	350 kV HVdc Long Range Mountains (LRM)	18-May-2016	Mike Kelly & Sons Ltd.
	Access Clearing	,	,
CH0049-003	Fabrication and Supply of Debris, Ice, Safety	7-Apr-2016	M&M Offshore Ltd.
	Boom		
CT0327-051	HVdc Clearing – Blocks 17 & 18	01-Apr-16	Springdale Forest Resources Inc.
CD0501-001	Supply and Install Permanent Communication	21-Mar-16	Bell Aliant Regional Communications,
	Systems, Optical Transport Network (OTN)		L.P.
CD0501-004	Transition Compounds – Civil Works	2-Mar-16	Pennecon Heavy Civil Limited
SM0700-024	Transportation of Transmission Line Material	07-Jan-16	Hunt's Transport
31010700-024	(Island of Newfoundland)	07-Jan-10	PTL Services / CSL Services
	(Island of Newroundiana)		Christopher's Trucking
CDE10 003	Completed Install Page of the Completions	0C lan 1C	Akita Equipment & Auto Transport
CD510-002	Supply and Install Permanent Communications	06-Jan-16	Talon Energy Services Inc.
	Systems-Prefabricated Buildings		
CT0327-017	HVdc Clearing and Access – Blocks 15 & 16	18-Sept-15	Springdale Forest Resources
CH0009-001	Construction of North and South Dams	14-Aug-15	Barnard Pennecon Limited Partnership
CT0342-002	Transmission Line Construction (HVac 230kV	11-Aug-15	Locke's Electrical Limited
	Modifications and NL Electrode Line)		
LC-PM-186	Project Completion System	23-Jun-15	IBS Canada
CD0508	Supply and Install Electrode Sites	02-Mar-15	H.J.O' Connell Construction Ltd.
CT0327-015	HVdc Clearing and Access – Section 1 (Blocks	09-Jan-15	Johnson's Construction Limited
	Nos. 9, 10, 11, and 12)		
CH0008	North Spur Stabilization Works	23-Dec-14	Gilbert Newfoundland & Labrador
CT0227 044	LINGS Classics and Assess Coation 4 (Plants	40 D - 44	Contracting Limited
CT0327-014	HVdc Clearing and Access – Section 1 (Blocks Nos. 13 & 14)	19-Dec-14	Springdale Forest Resources Inc.
CT0327-011	HVdc Clearing and Access – Section 1 (Blocks	23-Sep-14	C&T Enterprises Ltd.
C10327 011	Nos. 7 & Partial 6)	25 3cp 14	ear Enterprises Eta.
CT0327-013	HVdc Clearing and Access-Section 1 (Blocks 4, 5	2-Sep-14	Johnson's Construction Limited
	and 6)	•	
CD0502	Construction of AC Substations	22-Aug-14	Alstom Grid Canada, Inc.
CT0342	Construction of AC Transmission Lines – Island	19-Aug-14	Locke's Electrical Limited
CD0534	Supply & Install Synchronous Condensers at	15-Aug-14	ALSTOM Renewable Power Canada
	Soldiers Pond		Inc.
CT0327	Construction of 350kV HVdc Transmission Line	8-Aug-14	Valard Construction LP
PH0015	Supply of Isolated Phase Bus	25-Jul-14	Alfa Standard s.p.a
CD0501	HVdc Clearing and Access-Section 1 Supply & Install Converters and Cable	22-Jul-14	Springdale Forest Resources Alstom Grid Canada Inc.
CD0501	Transition Compounds	19-Jun-14	Alstoni Griu Canada IIIC.
PT0331	Supply of Tower Hardware 450 kV HVdc	28-May-14	Slacan Industries
		20	Performed Line Products Limited
CH0034	Supply & Install Powerhouse Elevator	29-Apr-14	Thyssen Krupp Elevator
PT0353	Supply of Optical ground Wire (OPGW) 350 kV	16-Apr-14	Suzhou Furukawa Power Optic Cable
	HVdc	•	Co.

Package #	Package Title	Award Date	Successful Bidder(s)
PT0334	Supply of Steel Wires – 350 kV HVdc	14-Apr-14	Wire Rope Industries Ltd.
SD0564	Provision of Camp Services (CF)	8-Apr-14	Labrador Catering Ltd. Partnership
SH0041	Provision of Ground Transportation Services	14-Mar-14	PENCAL Supplies Ltd & SBH
	(HVGB-MF)		Enterprises Inc., A Joint Venture
LC-SB-011	Subsea Rock Protection Design, Supply and	7-Mar-14	Tideway (Luxembourg) S.A.
	Installation		, , , , , , , , , , , , , , , , , , , ,
SM0709	Provision of Air Transportation	10-Feb-14	Innu Mikun Ltd. Partnership and PAL
	·		Airlines
SM0705	Provision of Laboratory Services	10-Feb-14	AMEC Americas Limited
PH0014	Supply of Generator Step-Up Transformers	10-Feb-14	ABB Inc.
PD0537	Supply of Power Transformers, AC Substations	10-Feb-14	ABB Inc.
	at CF, MF and SP		
SH0040	Provision of Garbage Removal and Disposal	23-Jan-14	Pardy's Waste Management &
	Services (MF)		Industrial Services
PH0016	Supply of Generator Circuit Breakers	17-Jan-14	ABB Inc.
PT0328	Supply of Transmission Line Conductors-350 kV	2-Jan-14	General Cable Company Ltd. and
	HVdc		Midal Cables Ltd.
PT0356	Stockbridge Dampers	20-Dec-13	Performed Line Products (Canada) Ltd.
PT0308	Supply of Steel Tower Foundations 350kV HVdc	20-Dec-13	Locweld Inc.
CH0032	Supply & Install Powerhouse & Spillway Hydro-	19-Dec-13	Andritz Hydro Canada Inc.
	Mechanical Equipment		
PT0352	Supply of Anchor Materials 350 kV HVdc	18-Dec-13	Williams Form Hardware & Rockbolt
			(Canada) Ltd.
CT0319	AC Transmission Line Construction	17-Dec-13	Valard Construction LP
SH0018	Camp Catering, Housekeeping and Janitorial	16-Dec-13	Labrador Catering Limited Partnership
	Services		
LC-SB-034	Conduit End Exit Verification	13-Dec-13	DOF Subsea Canada
CH0033	Supply & Install Powerhouse Cranes	9-Dec-13	Groupe LAR Inc.
LC-SB-027	Supply of Casing	4-Dec-13	East Coast Tubulars Ltd.
CH0007	Construction of Intake and Powerhouse	29-Nov-13	Astaldi S.p.A
	Spillway and Transition Dams		
SH0022	Provision of Fuel Supply & Dispensing Services	18-Nov-13	Woodward's Oil Limited and Utapan
			Fuels Limited, a Joint Venture
CT0341	Clearing of Right Of Way for 315kV HVac	15-Nov-13	Great Western Forestry Inc.
	Transmission Line (MF to CF)		
LC-SB-026	Drill Bits and Tooling	14-Nov-13	HALLIBURTON
			Dreco Energy
			Baker Hughes Canada
			Smith Bits A Schlumberger Company
LC-SB-036	Conduit End Connection	12-Nov-13	Kongsberg Oil and Gas Technologies
CD0503-002	Construction of Earthworks at Soldier's Pond	18-Oct-13	H.J. O'Connell
PT0330	Supply of Steel Towers-350 kV HVdc	10-Oct-13	Jyoti Amercias LLC
SM0700	Provision of Freight Forwarding Services	3-Oct-13	Panalpina Inc., Panprojects Division
LC-SB-023	Drilling Fluids Services for HDD Program	6-Sep-13	M-I SWACO, a Division of
10.00.004	Directional Constant for USD 2	C C - 42	Schlumberger Canada Limited
LC-SB-024	Directional Services for HDD Program	6-Sep-13	Baker Hughes Canada Company
CD0E03 004	Construction of Foutbook at Cl. 1985 8	F.C 42	Johnsonia Countrion III III
CD0503-001	Construction of Earthworks at Churchill Falls	5-Sep-13	Jonnson's Construction Limited
LC CD 034	Civil Morks CODI	22 4 42	COT Entorprises Limited
rc-28-051	CIAII MALKR-20RI	22-Aug-13	C&T Enterprises Limited
CD0503-001 LC-SB-021	Construction of Earthworks at Churchill Falls Civil Works-SOBI	5-Sep-13 22-Aug-13	Johnson's Construction Limited C&T Enterprises Limited

Package #	Package Title	Award Date	Successful Bidder(s)
PH0058	Supply of 600 V Switchgear	25-Jul-13	ABB Inc.
PT0329	Supply of Insulators 350 kV HVdc	22-Jul-13	Seves Canada Inc.
CH0003	County and Install Advainintmetive Duildings	19-Jul-13	Oppose Construction Inc.
CH0003	Supply and Install Administrative Buildings	19-Jul-13	Opron Construction Inc.
LC-SB-022	Provision of Drilling Rig and Surface Spread for	19-Jul-13	Direct Horizontal Drilling Inc.
	HDD Program		
CT0354	HVAC Marshalling Yard Civil and Electrical	17-Jul-13	Johnson's Construction Limited
CT0244	Works	10 1 1 10	
ST0311	Provision of Survey Services (315) kV HVac	10-Jul-13	MMM Group Limited & N.E. Parrott Surveys Limited, a joint venture
SM0704	Provision of Surveying Services	14-Jun-13	Edwards & Associates Ltd.
0.1.107 0 1		1.74 10	24.04.45 67.5555.4155 214.
SD0565	Provision of Geotech Investigation Shoreline	6-Jun-13	Stantec Consulting Ltd.
	Pond Electrodes		
PT0335	Supply of Anchor Materials – 315 kV HVac	22-Oct-13	Williams Form Hardware & Rockbolt
CH0024	Construction of Reservoir Clearing North Bank	25-Apr-13	(Canada) Ltd. Johnson Construction Ltd.
C110024	Construction of Reservoir Cicaring North Bank	25 Apr 15	Johnson Construction Eta.
PT0303	Supply of Hardware 315 kV HVac	17-Apr-13	Mosdorfer GmbH (Austria)
PT0300	Supply of Transmission Line Conductors 315 kV	5-Apr-13	Midal Cables Ltd.
SM0713	HVac	27-Mar-13	AMEC Environment & Infrastructure
31010713	Provision of Geotechnical Investigation Services	27-War-13	AMEC Environment & intrastructure
SM0701	Provision of 3rd Party Quality Surveillance and	18-Mar-13	SGS Canada Inc.
	Inspection Services		Killick Group Ltd.
			GL Noble Denton Canada Ltd
			Moody International Ltd.
PT0307	Supply of Tower Foundations-315 kV HVac	5-Mar-13	Fabrimet
PT0302	Tower Steels for AC Lines	6-Feb-13	ŞA-RA Energy, Construction, Trade and
	To wer essent for the small	0.00 10	Industry Inc.
PT0326	Supply of Steel Wires-315 kV HVac	28-Jan-13	Graybar Canada
PT0304	Optical Ground Wire Conductors (OPGW) 315	25-Jan-13	PT0304-001 Mosdorfer North Caroline
	kV HVac		Inc. PT0304002 Suzhou Furukawa Power
			Optic Canada Inc.
PT0301	Supply of Insulators 315 kV HVac	18-Jan-13	Seves Canada Inc.
SH0054	Temporary Site Services	10-Jan-13	Labrador Catering Limited Partnership
CHOOSO	Turkings and Consustant	2 lan 12	Andrite Hudro Considering
CH0030	Turbines and Generators	2-Jan-13	Andritz Hydro Canada Inc.
LC-SB-003	Submarine Cable Design, Supply and Install	29-Nov-12	Nexans Norway AS
			·
LC-SB-018	Provision of Third Party Equipment,	27-Nov-12	Lloyd's Register North America
	Manufacturing, Supply, and Installation		Spectrol Group
CH0006	Surveillance Service Bulk Excavation Works	6-Nov-12	IKC-ONE Earthworks Constructors, a
C110000	Daik Excavation Works	0-1404-17	Partnership
SH0019	Provision of Security Services	1-Nov-12	Speuata Security Inc.

Package #	Package Title	Award Date	Successful Bidder(s)
SH0020	Provision of Medical Services	1-Nov-12	Innu - Med Inc.
CH0002	Supply and Install Accommodations Complex Buildings	22-Oct-12	Liannu Limited Partnership
PH0038	Supply of Emergency Diesel Generator	12-Oct-12	Toromont CAT, a division of Toromont industries Ltd
LC-SB-017	Ocean Characteristic Monitoring and MetOcean Report	13-Sep-12	AMEC Environment & Infrastructure A Division of AMEC Americas
PH0036	Supply of Auxiliary Transformers	13-Aug-12	MVA Power
CD0512	Construction Contract for Construction Power	20-Jun-12	G.J. Cahill & Company Ltd.
CH0004	Southside Access Road	25-Oct-12	Liannu
CH0048	Site Clearing Access Road & Ancillary Areas	20-Apr-12	Nukum Forestry Ltd
PD0522	Pre-Fabricated Control Room Building	11-Apr-12	Automatisation Grimard Inc.
PD0531	MV Instrument Transformer (Combined CT&PT Unit)	19-Mar-12	ABB Inc.
PD0515	138 kV and 25 kV Disconnect Switches (with and without ground switches)	13-Feb-12	Alstom Grid
PD0514	135 kV and 25 kV Circuit Breakers (dead tank type)	6-Feb-12	Alstom Grid Via Power Systems Consulting
PD0518	138 kV Capacitor Voltage Transformers (CVTs)	6-Feb-12	Alstom Grid Via Power Systems Consulting
PD0519	25 kV Vacuum Interrupters	6-Feb-12	Siemens Canada Limited
PD0520	25 kV 6×4 MVAR Capacitor Banks	6-Feb-12	ABB
PD0529	25 kV Reclosers	6-Feb-12	Siemens Canada Limited
PD0530	138 kV and 25 kV Class Surge Arresters	6-Feb-12	Graybar Canada
PD0523	Substation Service Transformers	19-Jan-12	Carte International Inc
LCP 00728	Web-Based Employment and Expenditure Tracking and Reporting Software	22-Aug-11	SCI Resource Software Inc.
LC-SB-002	Iceberg Tracking Program	19-Aug-11	Provincial Aerospace LTD. (PAL)
LC-SB-007	2011 HDD Pilot Bore Field Investigation Program	19-Aug-11	Mears Canada Corp.



Muskrat Falls Project

Monthly Report January 2019

March 18, 2019



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1.0 Monthly Report Overview

This report¹ provides the monthly update for January 2019 on the following projects associated with the Muskrat Falls development:

- the 824 megawatt (MW) hydroelectric development at Muskrat Falls (the Muskrat Falls hydroelectric generating facility);
- two 315 kilovolt (kV) High Voltage alternating current (HVac) transmission lines between Muskrat Falls and Churchill Falls (the Labrador Transmission Assets); and
- the 1,100 km long High Voltage direct current (HVdc) transmission line between Muskrat Falls and Soldiers Pond (the Labrador-Island Transmission Link).

Included in this report are details on construction activities and costs, safety and environmental activities, procurement information, and details on stakeholder and community engagement initiatives during the reporting period. The report also provides detailed statistical tables summarizing employment and expenditure benefits generated from the Muskrat Falls development.

2.0 Highlights this Month

Construction of the Muskrat Falls Project progressed during the month on both the generation and transmission components. As of the end of January:

- overall construction of the Muskrat Falls Project reached 97% complete;
- the Muskrat Falls generation project reached 93% complete;
- both the Labrador-Island Transmission Link and the transmission line connecting Churchill Falls to Muskrat Falls remained at over 99% complete.



View looking upstream at the Muskrat Falls generation facility

Muskrat Falls Project – January 2019 Project Report

¹ This report is prepared by Lower Churchill Management Corporation (LCMC), the Nalcor Energy subsidiary responsible for managing the construction of the Muskrat Falls hydroelectric generating facility, the Labrador Transmission Assets and the Labrador-Island Transmission Link.

3.0 Construction Update

3.1 Muskrat Falls Hydroelectric Generating Facility

The following outlines some of the construction activities for the components of the Muskrat Falls hydroelectric generation facility undertaken in January:

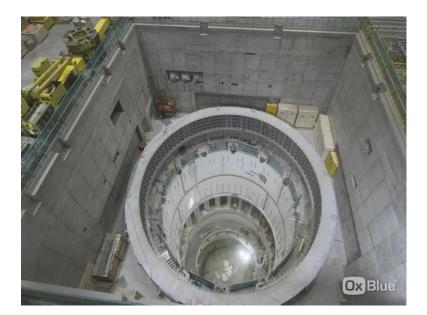
- Barnard-Pennecon completed the decommissioning of the upstream cofferdam and the North Dam was placed into service.
- Pennecon Heavy Civil Ltd. continued to undertake civil work on the Intake, Powerhouse, and Spillway. In the Intake, concrete finishing for Bays 4 and 5 has commenced.
- Andritz continued preservation work on the turbine and generator components along with continuation of Unit 1 runner and rotor assembly in the South Service Bay.
- Cahill-Ganotec continued to work on balance of plant activities for architectural, electrical and piping work; mechanical completion and commissioning.
- Andritz continued work on the hydro-mechanical equipment in the powerhouse; Units 3 and 4 have been handed over to Pennecon Heavy Civil Ltd. for Stage 7 concreting.



North Dam – looking north towards the rock knoll on the North Spur



Upstream view of the Intake



Unit 1 in the Muskrat Falls Powerhouse



View looking downstream of the Tailrace channel

3.2 Labrador Transmission Assets (LTA)

Construction of LTA is complete. Activities on the LTA continued during the month with work on punch list items at both the Churchill Falls and Muskrat Falls switchyards.

3.3 Labrador-Island Transmission Link (LIL)

Construction of the transmission line from Muskrat Falls to Soldiers Pond is complete. Activities for LIL continued during the month and included:

- Continuation of work on punch list and clean-up items at the Soldiers Pond AC Switchyard.
- Continuation of HVdc Control System software development.
- Continuation of Pole 1 punch list items at the Muskrat Falls and Soldiers Pond Converter Stations.
- Continuation of static commissioning activities at the Soldiers Pond Synchronous Condenser site.

3.4 Construction Cost Summary

The current facilities capital cost estimate of the Muskrat Falls Project is \$10.1 billion. The total cost including interest during construction and capitalized financing costs is \$12.7 billion (see Table 1).

3.4.1 Incurred Cost Overview

Table 1 summarizes the incurred costs for the project for the month of January and for the project to date. Incurred costs refer to the value of work performed during the period regardless of it being paid during the current period or at some point in the future.

Table 1 - Estimate and Incurred costs for Muskrat Falls Project to January 2019 (Costs in millions of CAD \$)*

Project Component	Current Cost	Incurred Cost	Incurred Cost Project
	Estimate	Current Month	to Date
Muskrat Falls Hydroelectric	\$5,500	\$35	\$4,672
Generating Facility			
Labrador Transmission Assets	\$904	\$0.3	\$850
Labrador-Island Transmission Link	\$3,714	\$16	\$3,480
Total	\$10,118	\$51.3	\$9,002

^{*} Value excludes interest during construction and capitalized financing costs.

3.4.2 Monthly Expenditure Overview

- Total expenditures paid for the Muskrat Falls Project were almost \$51 million in January 2019. This included almost \$34 million to Newfoundland and Labrador businesses.
- From January 2013 to the end of the reporting period in January 2019, \$2.8 billion has been spent directly with Newfoundland and Labrador-based companies.
- The cumulative expenditures made to NL business since Project Sanction is illustrated in Figure 1.

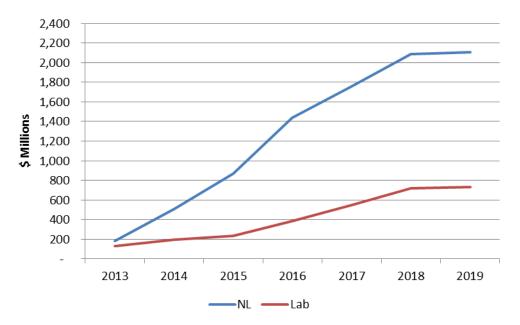


Figure 1 - Cumulative Expenditures to Newfoundland and Labrador Businesses (Jan 2013 to January 2019)

4.0 Safety and Environment

4.1 Safety

LCP and all contractors working on the Muskrat Falls Project have a relentless commitment to the safety of workers and the public. Table 2 outlines the Health and Safety indicators and measurements for the month of January and for the project to date.

As of the end of 2018, the transmission teams have worked more than 3.5 million hours (22 months) without a lost-time injury; the generation teams have worked more than 10.5 million hours (21 months) without a lost-time injury.

Table 2 - Health and Safety Indicators and Measurements - January 2019 and Project to Date

Indicator	January 2019	Project to Date
Orientations completed	155	55,369
Safety Step Backs completed	6,276	1,884,852
Work site inspections	257	98,402
Lost-time injuries	0	16
Medical aid incidents	0	114

4.2 Environment

The LCP Environment and Regulatory Compliance (ERC) Team is committed to maintaining a high standard of environmental responsibility that will help to sustain a diverse and healthy environment for generations of Newfoundlanders and Labradorians.

The Lower Churchill Project wants to ensure they reduce their environmental impact as well as give back to the community whenever possible. One of the ways this is achieved is through waste diversion from the landfill and the donation of the bottle recycling to local community organizations. In 2018, the Lower Churchill Project diverted over 100 m³ of recyclables from entering the landfill. These recyclables were donated to local community organizations and generated more than \$5,000. This is just one of the many ways the Lower Churchill Project is diverting waste streams from the landfill.



Some of the recycled bottles donated by LCP and its contractors

5.0 Employment, Benefits and Community Engagement

This section provides information on employment benefits generated during the month as well as details on some of the community activities undertaken during the month. Some of these activities are part of commitments made by LCP through the Benefits Strategy with the provincial government, the Impacts and Benefits Agreement (IBA) with Innu Nation, the Gender Equity and Diversity Program, and provincial and federal environmental regulatory commitments.

5.1 Employment Highlights

The employment highlights for the month of January are summarized below. Detailed employment information and statistics are outlined in Section 8.

- In January, over 230,000 hours were worked by 1,862 individuals on the projects, including almost 195,000 hours of work in Labrador.
- During the month of January, 1,687 residents of Newfoundland and Labrador were employed on the projects, representing 91 per cent of the total persons employed.
- In January, there were 1,543 people working in Labrador, of whom 453 were Labrador residents (approximately 30 per cent). Of these 453 Labrador residents, 178 self-identified as a member of a Labrador Aboriginal group (approximately 39 per cent). A breakdown of the employment in Labrador by affiliation is shown in Figure 2 below.

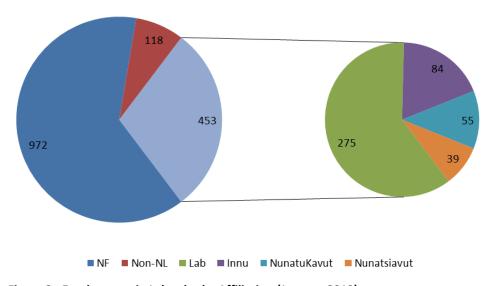


Figure 2 - Employment in Labrador by Affiliation (January 2019)

5.2 Recruitment Activities

Employers continue to utilize <u>muskratfallsjobs.com</u> as a tool to find qualified residents of the province to fill available positions. The website also details current opportunities with the LCP Project Delivery Team as well as contact information for LCP recruitment service providers.

5.2.1 Workplace Orientation

To foster a safe and respectful workplace, all workers complete mandatory training in site safety rules and procedures, respectful workplace protocols, and gender and cultural awareness.

5.2.2 Labrador Aboriginal Training Partnership (LATP) Support

The LATP continued to offer client counseling to Aboriginal individuals seeking employment, as well as providing funding support for safety certifications. While LCP is no longer the industry partner in this organization, as the LATP has engaged with Vale for a multi-year project, LATP still has the ability to assist clients who may be connected to employment at Muskrat Falls.

5.3 Gender Equity and Diversity

5.3.1 Employment of Women

In January, 276 women were working on all project components, comprising approximately 15 per cent of the total workforce. Of these, 93 were working in construction, 8 in engineering, 97 in project management, and 78 in project support. Of the 276 women working on the project, 258 of them are Newfoundland and Labrador residents. Table 3 below breaks down the types of jobs held by female workers during January.

Table 3 - Types of Jobs Worked by Females (January 2019)

Job Type	Number
Camp and Catering Staff	49
Administrative Staff	39
Financial/Accounting Staff	19
General Labourer	24
Student	29
Other trades	15
Engineering	21
Other professional	16
EMR/security	13
Heavy Equipment Operator	10
Procurement	8
H&S Staff	3
Civil Technologist	12
Other technical	4
Carpenter/Scaffolder	1
HR Staff	6
Electrician	4
Environmental Staff	3
Total	276

5.3.2 Promoting Women in Trades

LCP continued to work closely with the Office to Advance Women Apprentices (OAWA) to support female apprentices gain employment on the Project, as well as addressing issues with those already employed.

5.4 Employment of Students and Apprentices

LCP supports the hiring of students and apprentices. Statistical data on the hiring of students and apprentices is provided in the following sections.

5.4.1 Employment of Students

In the fourth quarter of 2018, there were 61 students working on the Muskrat Falls Project. Figure 3 below illustrates the quarterly time profile of students working on the Project between the first quarter of 2016 and the end of the fourth quarter of 2018.

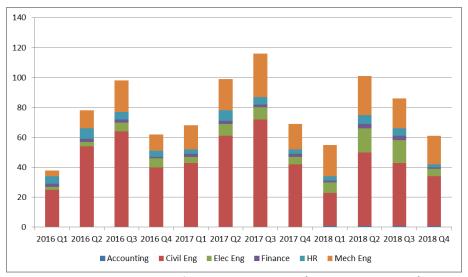


Figure 3 - Employment of Students by Quarter (Q1 2016 to Q4 2018)

5.4.2 Employment of Apprentices

During the fourth quarter of 2018, 297 apprentices were working on the project, including 44 females. Figure 4 below illustrates the quarterly time profile of apprentices working on the Project between the first quarter of 2016 and the end of the fourth quarter of 2018.

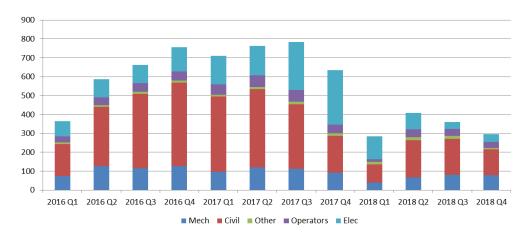


Figure 4 - Employment of Apprentices by Quarter (Q1 2016 to Q4 2018)

5.5 Labrador Innu Initiatives - Impacts and Benefits Agreement (IBA) Implementation Activities

During the month of January, 84 Innu were employed at Muskrat Falls and transmission line sites in Labrador. Innu employees were working in a wide range of occupations, including construction trades, labourers, camp accommodations and food services. The Innu workforce included persons occupying management, apprenticeship, foreperson and shop steward positions.

5.6 Community Engagement

LCP has established multiple venues for members of the public to ask questions, seek employment information, and get details about the Muskrat Falls development. LCP has a website for people to apply for jobs (muskratfallsjobs.com) as well as a website that provides information on project construction activities (muskratfalls.nalcorenergy.com). In addition, people can contact LCP through the toll-free number, by email, or by visiting the project office in Happy Valley-Goose Bay.

6.0 Definitions

Term	Definition
Benefits Strategy	Lower Churchill Construction Project Benefits Strategy as agreed by the Province of Newfoundland and Labrador and LCP.
Expenditures	Expenditures for the month are defined as those expenditures from invoices which have been approved for payment during the month.
Incurred Costs	Value of work performed during the period (month) regardless of it being paid during the current period or at some point in the future.
Industry Category	Based on the North American Industry Classification System (NAICS) and used to categorize companies for expenditure reporting.
Island or NF	Refers to the residency of employees, the location of work completed or the location of a company; includes residents from, work done on or companies located on the island portion of NL.
NOC Code	Occupational codes from the National Occupational Classification system, which is the standard system for classifying jobs in Canada. It is a hierarchical structure with four levels of classifications. Both the 2-digit and 4-digit classifications are used in this report.
Person Hours	Hours worked by individuals on the project.
Persons Employed	Any person who has worked at any time on the Project during the time period referenced.
Project to Date	Cumulative totals for the period from February 1, 2013 up to the end of the current month.
Residents	Residents of Newfoundland and Labrador who meet the requirements as defined in the Benefits Strategy.

7.0 Abbreviations and Acronyms

Abbreviation/Acronym	Definition
BMRS	Benefits Monitoring and Reporting System
C&A	Construction and Assembly
CEC	Conduit End Connection
CLC	Community Liaison Committee
CNA	College of the North Atlantic
CPR	Cardiopulmonary Resuscitation
	Centre Transition Dam
CTD	
DG3	Decision gate 3
E&D	Engineering and Design
EMC	Environmental Management Committee
EMS	Environmental Management System
EPP	Emergency Preparedness Plans
ERC	Environment and Regulatory Compliance
FAT	Factory Acceptance Testing
GIS	Gas Insulated Switchgear
GPR	Ground Penetrating Radar
HDD	Horizontal Directional Drilling
HHRA	Human Health Risk Assessment
HVac	High voltage AC transmission
HVdc	High voltage DC transmission
IBA	Impacts and Benefits Agreement
INT	International (Location of Work or Company)
kV	Kilovolt
LATP	Labrador-Aboriginal Training Partnership
LCP	Lower Churchill Project
LIL	Labrador-Island Transmission Link
LRM	Long Range Mountains
LTA	Labrador Transmission Assets
MeHg	Methylmercury
MFG	Muskrat Falls Hydroelectric Generation Facility
MW	Megawatt
NLESA	Newfoundland and Labrador Endangered Species Act
NLOWE	Newfoundland and Labrador Organization of Women Entrepreneurs
OAWA	Office to Advance Women Apprentices
OC	Other Canada
OSEM	On-site Environmental Monitor
PEGNL	Professional Engineers and Geoscientists of Newfoundland and Labrador
PM	Project Management
RCC	Roller-compacted concrete
Res	Residents of Newfoundland and Labrador
RFP	Request for Proposal
ROW	Right of Way
SOBI	Strait of Belle Isle
T&G	Turbine and Generator
THg	Total Mercury
тто	Transition to Operations
WRDC	Women in Resource Development Corporation
··	

8.0 Employment Benefits

All information on employment is provided by both person hours and the number of persons employed for the following categories:

- Total employment
- Employment by NOC Code
- Employment by Location of Work
- Employment by Aboriginal Affiliation
- Employment by Gender

8.1 Total Employment

Tables 4 through 6 break out the project employment in both person hours and persons employed by location of work and residency.

Table 4 - Person Hours of Employment by Location of Work and Residency (January 2019)

	Residency												
	Isla	nd	Labra	dor	Other (Canada	Non-Ca						
Work Location	at Location	% of Total	Total										
Island	28,252	83.2%	545	1.6%	4,164	12.3%	1,008	3.0%	33,969				
Labrador	124,466	63.9%	52,548	27.0%	16,303	8.4%	1,460	0.7%	194,777				
Other Canada	-	0.0%	-	0.0%	1,189	100.0%	-	0.0%	1,189				
International	-	0.0%	-	0.0%	140	100.0%	-	0.0%	140				
Total	152,718	66.4%	53,093	23.1%	21,796	9.5%	2,468	1.1%	230,074				

Table 5 - Person Hours of Employment by Location of Work and Residency (Project to Date)

Residency												
	Islan	d	Labr	ador	Other (Canada	Non-Ca					
Work Location	at Location	% of Total	Total									
Island	6,172,763	80.7%	198,251	2.6%	1,144,526	15.0%	134,648	1.8%	7,650,188			
Labrador	20,541,039	58.3%	9,291,726	26.4%	5,001,886	14.2%	395,117	1.1%	35,229,769			
Other Canada	8,940	2.4%	-	0.0%	359,718	95.6%	7,618	2.0%	376,276			
International	-	0.0%	-	0.0%	9,110	11.5%	69,997	88.5%	79,107			
Total	26,722,742	61.7%	9,489,977	21.9%	6,515,241	15.0%	607,380	1.4%	43,335,340			

Table 6 - Number of Persons Employed by Location of Work and Residency (January 2019)

				Resi	dency				
	Islaı	nd	Labra	ador	Other (Canada	Non-Ca		
Work Location	at Location	%of Total	Total						
Island	259	85.5%	3	1.0%	33	10.9%	8	2.6%	303
Labrador	972	63.0%	453	29.4%	109	7.1%	9	0.6%	1,543
Other Canada	-	0.0%	-	0.0%	15	100.0%	-	0.0%	15
International	-	0.0%	-	0.0%	1	100.0%	-	0.0%	1
Total	1,231	66.1%	456	24.5%	158	8.5%	17	0.9%	1,862

8.2 Employment by NOC Code

Tables 7 and 8 summarize project employment by 2-digit NOC Code. Appendix A contains an overview of the methodology used to capture employment by job title and how that information is converted to NOC codes. In addition, occupational information by 4-digit NOC code as well as information on employment by NOC code and gender, Aboriginal affiliation and for residents of Labrador is also provided in Appendix A.

Table 7 - Person Hours of Employment by 2-Digit NOC Code (January 2019 and Project to Date)

		Current	Month			Project	to Date	
2-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
00 - Senior management occupations	424	-	1,117	1,541	132,652	8,008	74,944	215,603
01-05 - Specialized middle management occupations	2,669	1,152	6,411	10,232	511,068	119,665	391,652	1,022,384
07-09 - Middle management occupations in trades, transportation,	33	_	_	33	664,323	12,249	246,669	923,241
production and utilities	33			33	004,323	12,249	240,003	323,241
11 - Professional occupations in business and finance	759	-	2,089	2,848	202,478	18,308	313,294	534,079
12 - Administrative and financial supervisors and administrative occupations	5,031	740	7,135	12,906	591,161	187,133	616,060	1,394,354
13 - Finance, insurance and related business administrative occupations	193	64	1,063	1,320	104,829	15,344	134,574	254,746
14 - Office support occupations	1,077	-	128	1,205	320,051	72	4,555	324,677
21 - Professional occupations in natural and applied sciences	8,742	2,166	12,220	23,128	1,984,808	708,945	1,765,596	4,459,350
22 - Technical occupations related to natural and applied sciences	18,620	1,101	5,008	24,728	1,469,519	380,360	714,534	2,564,413
32 - Technical occupations in health	3,739	-	-	3,739	293,281	-	4,188	297,469
41 - Professional occupations in law and social, community and government	992	393	1,553	2,937	226,004	103,791	187,156	516,950
services	332	333	1,555	2,337	220,004	103,731	107,130	310,330
43 - Occupations in front-line public protection services	768	_	-	768	43,431	-	2,680	46,111
63 - Service supervisors and specialized service occupations	1,663	-	1,034	2,697	281,340	-	7,472	288,812
65 - Service representatives and other customer and personal services	7,561	227	_	7,787	572,760	12,170	6,593	591,522
occupations	7,501	22,		7,707	372,700	12,170	0,555	331,322
67 - Service support and other service occupations, n.e.c.	12,723	_	-	12,723	1,566,033	-	4,142	1,570,174
72 - Industrial, electrical and construction trades	86,406	229	2,589	89,223	12,265,723	12,789	220,442	12,498,954
73 - Maintenance and equipment operation trades	9,043	-	3	9,046	2,181,064	2,193	45,406	2,228,663
74 - Other installers, repairers and servicers and material handlers	1,791	-	137	1,928	313,847	48	24,617	338,512
75 - Transport and heavy equipment operation and related maintenance	17,873	-	6	17,879	5,818,626	2,145	112,036	5,932,807
occupations	,		_	,		ŕ		
76 - Trades helpers, construction labourers and related occupations	1,501	-	1,354	2,855	6,521,007	3,995	109,844	6,634,846
82 - Supervisors and technical occupations in natural resources, agriculture	_	_	_	_	542,351	_	7,696	550,046
and related production					,		,	,
86 - Harvesting, landscaping and natural resources labourers	-	-	-	-	80,937	60	6,723	87,720
92 - Processing, manufacturing and utilities supervisors and central control	385	_	168	553	36,636	_	23,270	59,905
operators					,			
All Occupation Categories	181,993	6,070	42,011	230,074	36,723,928	1,587,272	5,024,139	43,335,339

Table 8 - Residents Hired by 2-Digit NOC Code (January 2019)

	C&A				E&D			PM		Total		
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
2-Digit NOC	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
00 - Senior management occupations	3	3	100%	1	-	0%	5	8	63%	8	11	73%
01-05 - Specialized middle management occupations	15	18	83%	2	4	50%	22	24	92%	39	46	85%
07-09 - Middle management occupations in trades,	11	17	65%			0%	15	20	75%	26	37	70%
transportation, production and utilities	11	17	05%	ı	-	U%	15	20	/5%	20	3/	70%
11 - Professional occupations in business and finance	7	10	70%	-	-	0%	29	29	100%	36	39	92%
12 - Administrative and financial supervisors and	15	25	60%	5	5	100%	35	42	83%	55	72	76%
administrative occupations	13	23	00%	5	3	100%	33	42	0370	55	72	70%
13 - Finance, insurance and related business	1	3	33%	1	1	100%	13	13	100%	15	17	88%
administrative occupations	1	3	33/6	1	1	100/6	13	13	100/6	13	17	0070
14 - Office support occupations	10	10	100%	-	-	0%	1	1	100%	11	11	100%
21 - Professional occupations in natural and applied	33	59	56%	5	22	23%	106	135	79%	144	216	67%
sciences	33	39	30%	J	22	23/0	100	133	13/0	144	210	07/0
22 - Technical occupations related to natural and applied	49	58	84%	7	11	64%	46	53	87%	102	122	84%
sciences	43	30	0470	,			40	33	0770	102		
32 - Technical occupations in health	14	15	93%	-	-	0%	-	-	0%	14	15	93%
41 - Professional occupations in law and social, community	2	5	40%	1	2	50%	13	13	100%	16	20	80%
and government services	_	3		-	_		13	13				
43 - Occupations in front-line public protection services	12	12	100%	-	-	0%	-	-	0%	12	12	100%
63 - Service supervisors and specialized service	9	12	75%	_	_	0%	_	_	0%	9	12	75%
occupations	3		7570			0,0			0,0	,		7570
65 - Service representatives and other customer and	49	50	98%	1	1	100%	-	_	0%	50	51	98%
personal services occupations												
67 - Service support and other service occupations, n.e.c.	100	100	100%	-	-	0%	-	-	0%	100	100	100%
72 - Industrial, electrical and construction trades	587	613	96%	-	-	0%	16	17	94%	603	630	96%
73 - Maintenance and equipment operation trades	120	123	98%	-	-	0%	8	8	100%	128	131	98%
74 - Other installers, repairers and servicers and material	11	11	100%	_	_	0%	2	2	100%	13	13	100%
handlers			20070			0,0	_	-	100/0	13	13	100/0
75 - Transport and heavy equipment operation and	141	142	99%	-	_	0%	2	2	100%	143	144	99%
related maintenance occupations							_	_				
76 - Trades helpers, construction labourers and related	155	155	100%	_	-	0%	4	4	100%	159	159	100%
occupations												
82 - Supervisors and technical occupations in natural	-	-	0%	-	-	0%	-	-	0%	-	-	0%
resources, agriculture and related production												
86 - Harvesting, landscaping and natural resources	-	-	0%	-	-	0%	-	-	0%	-	-	0%
labourers 92 - Processing, manufacturing and utilities supervisors												
and central control operators	3	3	100%	-	-	0%	1	1	100%	4	4	100%
'	1 2/17	1 444	029/	22	46	/100/	210	372	OF0/	1 607	1 062	91%
All Occupation Categories	1,347	1,444	93%	22	40	48%	318	3/2	85%	1,687	1,862	91%

8.3 Employment by Location of Work

Table 9 - Person Hours of Employment by Location of Work (January 2019 and Project to Date)

		Current	Period		Project to Date						
Work Location	C&A	E&D	PM	Total	C&A	E&D	PM	Total			
NL											
Island	4,140	4,439	25,390	33,969	3,589,818	1,097,774	2,962,595	7,650,188			
Labrador	177,251	1,156	16,371	194,777	32,883,677	323,758	2,022,555	35,229,990			
Total NL	181,391	5,594	41,761	228,746	36,473,496	1,421,532	4,985,150	42,880,178			
Other Canada	603	476	110	1,189	185,879	165,631	24,546	376,055			
Total Canada	181,993	6,070	41,871	229,934	36,659,375	1,587,162	5,009,696	43,256,233			
International	-	-	140	140	64,554	109	14,444	79,107			
All Locations	181,993	6,070	42,011	230,074	36,723,929	1,587,271	5,024,140	43,335,340			

Table 10 - Residents Hired by Location of Work (January 2019)

		C&A			E&D			PM			Total	
Work Location	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total	Res	Total Persons	Res as % of Total
NL												
Island	33	35	94%	17	33	52%	212	235	90%	262	303	86%
Labrador	1,314	1,401	94%	5	7	71%	106	135	79%	1,425	1,543	92%
Total NL	1,347	1,436	94%	22	40	55%	318	370	86%	1,687	1,846	91%
Other Canada	-	8	0%	-	6	0%	-	1	0%	-	15	0%
Total Canada	1,347	1,444	93%	22	46	48%	318	371	86%	1,687	1,861	91%
International	-	-	0%	-	1	0%	-	1	0%	-	1	0%
Total	1,347	1,444	93%	22	46	48%	318	372	85%	1,687	1,862	91%

8.4 Employment by Aboriginal Affiliation

Table 11 - Person Hours of Employment by Aboriginal Affiliation (January 2019 and Project to Date)

		Current Period				Project to Date			
Aboriginal Group	C&A	E&D	PM	Total	C&A	E&D	PM	Total	
Labrador Innu ^(a)	8,300	-	301	8,601	1,349,205	-	33,374	1,382,579	
Nunatsiavut ^(a)	4,884	-	6	4,890	971,917	23,096	37,127	1,032,140	
NunatuKavut ^(a)	5,265	210	360	5,835	1,250,796	13,680	40,809	1,305,285	
Other NL Aboriginal ^(a)	3,305	-	328	3,633	519,685	-	38,689	558,374	
Aboriginal - Other Canada	350	-	-	350	201,552	-	2,362	203,914	
Non-Aboriginal ^(b)	159,889	5,860	41,017	206,766	32,504,077	1,550,746	4,798,223	38,853,046	
All Groups	181,993	6,070	42,011	230,074	36,797,233	1,587,522	4,950,583	43,335,339	

⁽a) Also NL residents

Table 12 - Persons Employed by Aboriginal Affiliation (January 2019)

	C8	ιA	E8	kD.	P	М	To	tal
Aboriginal Group	Persons	%	Persons	%	Persons	%	Persons	%
Residents								
Labrador Innu	82	6.1%	-	0.0%	2	0.6%	84	5.0%
Nunatsiavut	39	2.9%	-	0.0%	1	0.3%	40	2.4%
NunatuKavut	53	3.9%	1	4.5%	2	0.6%	56	3.3%
Other Aboriginal	27	2.0%	-	0.0%	3	0.9%	30	1.8%
All Aboriginal	201	14.9%	1	4.5%	8	2.5%	210	12.4%
Non-Aboriginal	1,146	85.1%	21	95.5%	310	97.5%	1,477	87.6%
Total	1,347	100%	22	100%	318	100%	1,687	100%
Non Residents								
Aboriginal – Canada	2	2.1%	-	0.0%	-	0.0%	2	1.1%
Non-Aboriginal	95	97.9%	24	100.0%	54	100.0%	173	98.9%
Total	97	100%	24	100%	54	100%	175	100%
Summary								
Aboriginal	203	14.1%	1	2.2%	8	2.2%	212	11.4%
Non-Aboriginal	1,241	85.9%	45	97.8%	364	97.8%	1,650	88.6%
Total	1,444	100%	46	100%	372	100%	1,862	100%

⁽b) Includes residents and non-residents

Tables 13 through 15 summarize the employment of Aboriginal people and non-Aboriginal people both in terms of hours worked and persons employed by location of work during the month and for the Project to Date.

Table 13 - Person Hours of Employment by Location of Work and Aboriginal Affiliation (January 2019)

	Labrador	Innu	Nunatuk	avut	Nunatsi	avut	Other Ab	original	Non-Abo	original	
Work	At		At		At		At		At		
Location	Location	%	Location	%	Location	%	Location	%	Location	%	Total
Island	-	0.0%	210	0.6%	191	0.6%	328	1.0%	33,240	97.9%	33,969
Labrador	8,601	4.4%	5,625	2.9%	4,699	2.4%	3,485	1.8%	172,368	88.5%	194,777
Other Canada	-	0.0%	-	0.0%	-	0.0%	170	14.3%	1,019	85.7%	1,189
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	140	100.0%	140
All Locations	8,601	3.7%	5,835	2.5%	4,890	2.1%	3,983	1.7%	206,766	89.9%	230,074

Table 14 - Person Hours of Employment by Location of Work and Aboriginal Affiliation (Project to Date)

	Labrador	Innu	NunatuKa	avut	Nunatsi	avut	Other Abo	riginal	Non-Abo	original	
Work Location	At Location	%	At Location	%	At Location	%	At Location		At Location		Total
Island	2,961	0.0%	66,935	0.9%	24,623	0.3%	76,883	1.0%	7,478,786	97.8%	7,650,188
Labrador	1,379,618	3.9%	1,238,350	3.5%	1,007,518	2.9%	684,392	1.9%	30,919,891	87.8%	35,229,769
Other Canada	-	0.0%	-	0.0%	-	0.0%	1,013	0.3%	375,263	99.7%	376,276
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	79,107	100.0%	79,107
All Locations	1,382,579	3.2%	1,305,285	3.0%	1,032,140	2.4%	762,288	1.8%	38,853,047	89.7%	43,335,340

Table 15 - Number of Persons Employed by Location of Work and Aboriginal Affiliation (January 2019)

	Labrador	Innu	Nunatuk	avut	Nunatsi	avut	Other Abo	riginal	Non-Ab	original	
Work	At		At		At		At		At		
Location	Location	%	Location	%	Location	%	Location	%	Location	%	Total
Island	-	0.0%	1	0.3%	1	0.3%	3	1.0%	298	98.3%	303
Labrador	84	5.4%	55	3.6%	39	2.5%	28	1.8%	1,337	86.6%	1,543
Other Canada	-	0.0%	-	0.0%	-	0.0%	1	6.7%	14	93.3%	15
International	-	0.0%	-	0.0%	-	0.0%	-	0.0%	1	100.0%	1
All Locations	84	4.5%	56	3.0%	40	2.1%	32	1.7%	1,650	88.6%	1,862

8.5 Employment by Gender

Table 16 - Person Hours of Employment by Gender (January 2019 and Project to Date)

		Curren	t Period		Project to Date			
Gender	C&A	E&D	PM	Total	C&A	E&D	PM	Total
Female	19,291	980	10,546	30,816	3,641,157	231,386	1,071,017	4,943,559
Male	162,702	5,090	31,466	199,258	33,156,076	1,356,137	3,879,567	38,391,780
Total	181,993	6,070	42,011	230,074	36,797,233	1,587,522	4,950,583	43,335,339

Table 17 - Persons Employed by Gender (January 2019)

	C&	A	E&	:D	Pl	M	Tot	al
Gender	Persons	%	Persons	%	Persons	%	Persons	%
Residents								
Female	159	11.8%	7	31.8%	92	28.9%	258	15.3%
Male	1,188	88.2%	15	68.2%	226	71.1%	1,429	84.7%
Total	1,347	100%	22	100%	318	100%	1,687	100%
Non Residents								
Female	12	12.4%	1	4.2%	5	9.3%	18	10.3%
Male	85	87.6%	23	95.8%	49	90.7%	157	89.7%
Total	97	100%	24	100%	54	100%	175	100%
Summary								
Female	171	11.8%	8	17.4%	97	26.1%	276	14.8%
Male	1,273	88.2%	38	82.6%	275	73.9%	1,586	85.2%
Total	1,444	100%	46	100%	372	100%	1,862	100%

9.0 Expenditures and Procurement

Expenditures are captured through direct entry of expenditure breakdowns by contractors which enter directly into the benefits system. For all other contractors, a listing of payments approved during the month from the project's financial accounting system is used. In all cases, expenditure totals are those that are approved for payment during the month.

9.1 Expenditures by Location of Company and Industry Category

Table 18 - Total Value of Expenditures by Location of Company and Industry Category (\$CDN; January 2019)

Industry	Labrador	Newfoundland	Other Canada	Non- Canadian	Totals
Accommodation and Food Services	11,557	3,295,646	88	=	3,307,291
Administrative and Support, Waste Management and Remediation Services	5,997	25	1	-	6,022
Agriculture, Forestry, Fishing and Hunting	ı	5,600	-	=	5,600
Arts, Entertainment and Recreation	3,000	ı	-	=	3,000
Construction	11,431,559	8,721,386	942,564	-	21,095,509
Educational Services	1	-	1	-	-
Finance and Insurance	1	1,913	141,386	-	143,299
Health Care and Social Assistance	1	1	298,277	-	298,277
Information and Cultural Industries	ı	1,495	9,834	=	11,329
Management of Companies and Enterprises	ı	ı	-	=	-
Manufacturing	ı	242,838	8,568,251	-	8,811,089
Mining, Quarrying, and Oil and Gas Extraction	90,538	=	-	-	90,538
Other Services, Including Maintenance and Repair	1,836	843,840	1,589,218	-	2,434,894
Professional, Scientific and Technical Services	21,871	5,635,942	3,403,775	96,116	9,157,704
Public Administration	4,210	110	-	=	4,320
Real Estate, Rental and Leasing	1,875	37,478	65,902	-	105,255
Retail Trade	10,084	21,861	1,212	=	33,157
Transportation and Warehousing	426,842	28,656	12,908	-	468,406
Utilities	2,609	2,778,106	1,676,835	-	4,457,550
Wholesale Trade	160,570	35,402	56,933	-	252,905
Grand Total	12,172,547	21,650,298	16,767,182	96,116	50,686,144

Table 19 - Total Value of Expenditures by Location of Company and Industry Category (\$CDN; Project to Date)

Industry	Labrador	Newfoundland	Other Canada	Non- Canadian	Totals
Accommodation and Food Services	2,997,948	237,037,464	18,502,409	139,278	258,677,099
Administrative and Support, Waste Management and Remediation Services	761,107	11,253,458	284,858	7,333	12,306,756
Agriculture, Forestry, Fishing and Hunting	15,240	117,674,074	5,635,780	-	123,325,094
Arts, Entertainment and Recreation	304,621	131,998	44,500	22,611	503,730
Construction	623,947,388	934,744,994	3,492,428,109	50,507,327	5,101,627,817
Educational Services	142,854	563,719	4,943,448	15,580	5,665,600
Finance and Insurance	360,831	48,760,003	36,229,187	5,167,546	90,517,566
Health Care and Social Assistance	4,500	4,765,315	4,303,948	1	9,073,762
Information and Cultural Industries	44,921	1,485,658	3,619,200	3,027,371	8,177,149
Management of Companies and Enterprises	-	-	-	-	-
Manufacturing	8,411,401	34,771,365	750,643,364	263,894,839	1,057,720,969
Mining, Quarrying, and Oil and Gas Extraction	3,926,048	1,495,159	24,831,141	1,200	30,253,548
Other Services, Including Maintenance and Repair	1,066,929	107,938,515	427,014,620	95,409,979	631,430,042
Professional, Scientific and Technical Services	7,473,829	346,164,157	522,010,761	20,969,434	896,618,181
Public Administration	21,606,257	3,794,194	1,537,203	3,170	26,940,823
Real Estate, Rental and Leasing	844,251	891,288	2,820,148	22,500	4,578,187
Retail Trade	1,390,305	15,005,169	810,864	14,619	17,220,957
Transportation and Warehousing	30,897,825	38,616,651	52,785,670	1,365,823	123,665,970
Utilities	751,874	164,742,805	47,290,903	15,531	212,801,113
Wholesale Trade	6,477,571	4,132,326	3,124,133	16,357,266	30,091,296
Totals	711,425,698	2,073,968,312	5,398,860,243	456,941,406	8,641,195,659

9.2 Procurement

Tables 20 - 22 provide details on procurement activities for all components of the Muskrat Falls Project. Appendix B contains a list of all contracts awarded to date since Project Sanction.

Table 20 - Contracts Awarded During January 2019

Package #	Package Title	Award Date	Successful Bidder(s)
	No contracts were awarded duri	ng January 2019	

Table 21 - Request for Proposals Issued

Package #	Package Title	RFP Issue Status	Qualified Bidders					
	No requests for proposals were issued during January 2019							

Table 22 - Upcoming Request for Proposals (RFP)

Package #	Package Title	Forecasted Bidder Selection	Forecasted RFP Issue					
		Start	Date					
There are currently no upcoming requests for proposals.								

Appendix A – Employment by 4-Digit NOC Code

Table 23 - Person Hours of Employment by 4-Digit NOC Code (January 2019)

		Curren	t Month			Project t	o Date	
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
0016 - Senior Managers - Goods Production, Utilities, Transportation	424		1 117	1 541	122.652	0.000	74,944	215 602
and Construction	424	-	1,117	1,541	132,652	8,008	74,944	215,603
0111 - Financial Managers	-	-	221	221	8,865	-	28,825	37,689
0112 - Human Resources Managers	2,132	-	1,055	3,187	217,688	21,335	54,150	293,173
0113 - Purchasing Managers	134	-	144	278	17,649	9,932	19,356	46,937
0114 - Other Administrative Services Managers	120	-	162	282	146,385	3,023	39,943	189,351
0124 - Advertising, marketing and public relations managers	-	-	110	110	6,616	-	3,071	9,687
0125 - Other Business Services Managers	-	-	396	396	22,626	137	57,366	80,129
0211 - Engineering Managers	283	960	3,097	4,339	79,981	73,737	161,542	315,260
0213 - Computer and Information Systems Managers	-	192	1,227	1,419	11,259	11,501	27,399	50,159
0711 - Construction Managers	33	-	-	33	664,323	12,249	246,669	923,241
1111 - Financial Auditors and Accountants	260	-	292	552	37,306	1,658	26,246	65,209
1114 - Other Financial Officers	499	-	648	1,147	14,462	3,073	104,705	122,240
1121 - Human Resources professionals	-	-	771	771	119,681	13,547	130,614	263,841
1122 - Professional Occupations in Business management consulting	-	-	-	-	-	-	-	-
1123 - Professional occupations in advertising, marketing and public			270	270	24 020	21	F1 720	02.700
relations	-	-	379	379	31,030	31	51,730	82,790
1221 - Administrative Officers	-	580	668	1,248	51,509	78,183	56,530	186,222
1223 - Human resources and Recruitment Officers	-	-	195	195	3,058	3,741	24,793	31,591
1225 - Purchasing Agents and Officers	3,037	-	4,442	7,479	172,068	65,509	362,028	599,605
1241 - Administrative Assistants	1,994	160	1,830	3,984	364,526	39,701	172,709	576,936
1311 - Accounting technicians and bookkeepers	193	64	1,063	1,320	104,829	15,344	134,574	254,746
1411 - General Office support workers	1,077	-	-	1,077	318,726	72	1,254	320,052
1431 - Accounting and Related Clerks	-	-	128	128	1,325	-	3,301	4,625
2113 - Geologists, Geochemists and Geophysicists	-	-	-	-	7,849	12,440	15,145	35,434
2131 - Civil Engineers	866	-	976	1,842	533,968	224,015	334,231	1,092,214
2132 - Mechanical Engineers	516	283	975	1,774	101,488	64,259	203,949	369,695
2133 - Electrical and Electronics Engineers	978	537	1,878	3,392	104,961	210,371	259,726	575,057
2141 - Industrial and Manufacturing Engineers	3,260	-	3,252	6,512	489,715	19,202	305,846	814,762
2144 - Geological Engineers	343	1,137	1,942	3,422	3,647	29,407	7,836	40,889
2147 - Computer Engineers (Except Software Engineers and Designers)	972		226	1,198	4,449	11,503	3,770	19,722
2148 - Other Professional Engineers, n.e.c.	1,227	210	2,489	3,926	278,323	106,569	402,719	787,610
2151 – Architects	320	-	-	320	320	5,156	-	5,476
2153 - Urban and Land Use Planners		-	203	203	13,802	10,793	68,144	92,738
2154 - Land Surveyors	200	-	140	340	420,136	173	73,641	493,950
2171 - Information Systems Analysts and Consultants	61	-	140	201	26,152	15,060	90,591	131,802
2221 - Biological Technologists and Technicians	_	-	-	-	-	_	-	-

		Curren	t Month			Project t	o Date	
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
2231 - Civil Engineering Technologists and Technicians	2,704	182	519	3,405	363,527	88,775	76,228	528,530
2232 - Mechanical Engineering Technologists and Technicians	10,659	-	1,437	12,095	207,662	16,797	24,473	248,932
2234 - Construction Estimators	430	146	863	1,439	34,034	25,558	27,992	87,583
2241 - Electrical and Electronics Engineering Technologists and								
Technicians	48	-	214	262	40,264	34,228	166,182	240,674
2243 - Industrial Instrument Technicians and Mechanics	301	-	-	301	19,898	-	7,994	27,892
2251 - Architectural Technologists and Technicians	550	-	-	550	4,817	5,272	300	10,388
2253 - Drafting Technologists and Technicians	130	193	-	323	174,626	76,455	14,643	265,724
2263 - Inspectors in Public and Environmental Health and Occupational	3,428	500	1,804	E 722	539,371	93,276	182,897	815,544
Health and Safety	3,420	300	1,804	5,732	559,571	93,276	102,097	615,544
2264 - Construction Inspectors	369	-	-	369	85,258	39,919	212,644	337,821
2271 - Air Pilots, Flight Engineers and Flying Instructors	4	80	172	255	64	80	1,182	1,326
3234 - Paramedical Occupations	3,739	-	-	3,739	293,281	-	4,188	297,469
4112 - Lawyers and Quebec Notaries	429	-	332	761	686	-	5,068	5 <i>,</i> 754
4161 - Natural and Applied Science Policy Researchers, Consultants and	185	393	1,101	1,679	195,922	103,791	154,133	453,845
Program Officers	103	393	1,101	1,079	195,922	105,791	134,133	455,645
4162 - Economists and Economic Policy Researchers and Analysts	310	-	120	430	1,146	-	27,915	29,061
4169 - Other Professional Occupations in Social Science, n.e.c.	68	-	-	68	28,249	-	41	28,290
4312 – Firefighters	768	-	-	768	43,431	-	2,680	46,111
6313 - Accommodation, travel, tourism and related services supervisors	876	-	-	876	95,755	-	4,470	100,225
6321 – Chefs	-	-	-	-	1,134	-	-	1,134
6322 – Cooks	787	-	1,034	1,821	184,451	-	3,002	187,453
6541 - Security Guards and Related security service Occupations	7,561	227	-	7,787	572,760	12,170	6,593	591,522
6711 - Food Counter Attendants, Kitchen Helpers and Related support	12,723	-		12,723	1,566,033		4,142	1,570,174
Occupations	12,723	-	-	12,723	1,300,033	-	4,142	1,370,174
7201 - Contractors and supervisors, machining, metal forming, shaping	1,482	134	148	1,764	295,429	134	8,131	303,694
and erecting trades and related occupations	1,402	134	140	1,704	233,423	134	0,131	303,034
7202 - Contractors and Supervisors, Electrical Trades and	17,851	_	541	18,392	216,256	57	10,845	227,158
Telecommunications Occupations	17,851	_	341	10,332	210,230	57	10,843	227,138
7203 - Contractors and Supervisors, Pipefitting Trades	731	-	-	731	78,430	-	705	79,135
7204 - Contractors and Supervisors, Carpentry Trades	2,872	-	-	2,872	425,788	-	22,152	447,940
7205 - Contractors and Supervisors, Other Construction Trades,	18,583	_	20	18,603	753,715	9,829	36,153	799,697
Installers, Repairers and Servicers	10,303		20	10,003	755,715	3,023	30,133	755,057
7233 - Sheet Metal Workers	1,455	-	-	1,455	104,479	-	1,825	106,304
7234 – Boilermakers	7,431	-	-	7,431	42,348	-	-	42,348
7236 – Ironworkers	11,298	-	-	11,298	2,043,323	-	4,014	2,047,337
7237 - Welders and Related Machine Operators	3,178	-	-	3,178	264,217	192	2,397	266,806
7242 - Industrial Electricians	440	95	1,608	2,142	1,385,602	1,849	31,599	1,419,050
7244 - Electrical Power Line and Cable Workers	-	-	272	272	697,791	-	16,062	713,853
7251 – Plumbers	327	-	-	327	77,189	-	3,684	80,873
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	3,135	-	-	3,135	333,773	280	619	334,672

		Current	Month		Project t	o Date		
4-Digit NOC Code	C&A	E&D	PM	Total	C&A	E&D	PM	Total
7271 – Carpenters	17,313	-	-	17,313	5,057,057	448	73,162	5,130,667
7281 – Bricklayers	176	-	-	176	416,936	-	8,957	425,893
7293 – Insulators	135	-	-	135	17,733	-	-	17,733
7294 - Painters and Decorators (except interior decorators)	-	-	-	-	55,657	1	137	55,794
7301 - Contractors and supervisors, mechanic trades	358	-	-	358	96,027	-	358	96,385
7302 - Contractors and supervisors, heavy equipment operator crews	4,581	-	-	4,581	349,534	-	5,678	355,212
7311 - Construction Millwrights and Industrial Mechanics	995	-	-	995	161,442	-	24,792	186,234
7312 - Heavy- Duty Equipment Mechanics	1,886	-	3	1,889	680,229	1,033	2,535	683,796
7371 - Crane Operators	1,223	-	-	1,223	653,503	-	11,724	665,228
7372 - Drillers and Blasters - Surface Mining, Quarrying and					240.057	1 100	100	242 400
Construction	-	-	-	-	210,857	1,160	182	212,198
7384 - Other Trades and Related Occupations, n.e.c.	-	-	-	-	29,471	-	139	29,610
7452 - Material Handlers	1,791	-	137	1,928	313,847	48	24,617	338,512
7511 - Transport Truck Drivers	7,033	-	-	7,033	1,876,605	689	27,489	1,904,783
7512 - Bus Drivers, Subway Operators and Other Transit Operators	2,947	-	-	2,947	287,283	-	1,539	288,822
7521 - Heavy Equipment Operators (Except Crane)	7,894	-	6	7,900	3,654,060	1,457	83,007	3,738,524
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	-	-	678	-	-	678
7611 - Construction Trades Helpers and Labourers	1,016	-	2	1,018	1,091,411	189	45,101	1,136,701
7612 - Other Trades Helpers and Labourers	485	-	1,352	1,837	5,429,596	3,807	64,743	5,498,145
8211 - Supervisors, Logging and Forestry	-	-	-	-	58,359	-	700	59,059
8241 - Logging Machinery Operators	-	-	-	-	483,992	-	6,996	490,988
8616 - Logging and Forestry Labourers	-	-	-	-	80,937	60	6,723	87,720
9241 - Power Engineers and power system operators	385	-	168	553	36,636	-	23,270	59,905
All Occupation Codes	181,993	6,070	42,011	230,074	36,723,928	1,587,272	5,024,139	43,335,339

Table 24 - Residents Hired by 4-Digit NOC Code (January 2019)

A Digit NOC Code Res Persons Of Total Res Persons Of Total Res Persons Of Total Res Persons Of Total O1016 Senior Managers - Goods Production, Utilities, 3 3 100% - - 00% 5 8 63% 8 11 73% 73			C&A			E&D			PM			Total	
0016 - Senior Managers - Goods Production, Utilities, Transportation and Construction O111 - Financial Managers			Total			Total			Total	Res as %		Total	Res as %
Transportation and Construction 3 3 100% - - 0% 5 8 53% 8 11 173%	•	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
Transportation and Construction 0111 - Financial Managers 1		3	3	100%	_	_	0%	5	8	63%	8	11	73%
112	· ·		3										
113 - Purchasing Managers	_		•		-	-		_	_		_	_	
114 - Other Administrative Services Managers	I -	9	9		1	1		2					100%
0124 - Advertising, marketing and public relations managers		1	1	100%	-	-	0%	1		100%	2	2	100%
managers		1	1	100%	-	-	0%	3	3	100%	4	4	100%
O211 - Engineering Managers 3 3 100% - 2 0% 6 7 86% 9 12 75%		-	-	0%	-	-	0%	1	1	100%	1	1	100%
0213 - Computer and Information Systems Managers - - 0% 1 1 100% 2 2 100% 0711 - Construction Managers 11 17 65% - - 0% 15 20 75% 26 37 70% 1111 - Financial Auditors and Accountants - 2 0% - - 0% 3 3 100% 3 5 60% 1114 - Other Financial Officers 3 4 75% - - 0% 13 13 100% 16 17 94% 1121 - Human Resources professionals 4 4 100% - - 0% 9 9 100% 13 13 100% 1122 - Professional Occupations in Business management consulting - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0%	0125 - Other Business Services Managers	-	-	0%	-	-	0%	3	4	75%	3	4	75%
0711 - Construction Managers 11 17 65% - - 0% 15 20 75% 26 37 70% 1111 - Financial Auditors and Accountants - 2 0% - - 0% 3 3 100% 3 5 60% 1114 - Other Financial Officers 3 4 75% - - 0% 13 13 100% 16 17 94% 1121 - Human Resources professionals 4 4 100% - - 0% 9 9 100% 13 13 100% 1122 - Professional Occupations in Business management consulting - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - <td>0211 - Engineering Managers</td> <td>3</td> <td>3</td> <td>100%</td> <td>-</td> <td>2</td> <td>0%</td> <td>6</td> <td>7</td> <td>86%</td> <td>9</td> <td>12</td> <td>75%</td>	0211 - Engineering Managers	3	3	100%	-	2	0%	6	7	86%	9	12	75%
1111 - Financial Auditors and Accountants	0213 - Computer and Information Systems Managers	-	-	0%	1	1	100%	1	1	100%	2	2	100%
1111 - Financial Auditors and Accountants	0711 - Construction Managers	11	17	65%	-	-	0%	15	20	75%	26	37	70%
1121 - Human Resources professionals 4 4 100% - - 0% 9 9 100% 13 13 100% 1122 - Professional Occupations in Business management consulting - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% 4 4 100% 4 4 100% 4 4 100% 8 8 100% 100% 100% 100% - - 0% 4 4 100% 4 4 100% 8 8 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100%<	1111 - Financial Auditors and Accountants	-	2	0%	-	-	0%	3	3	100%	3	5	60%
1122 - Professional Occupations in Business management consulting - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% - - 0% 4 4 100% 4 4 100% 8 8 100% 1221 - Administrative Officers - - 0% - - 0% 2 3 67% 2 3 67% 2 3 67% 2 3 67% 2 3 67% 2 3 67% 2 3 67% 2 3 67% 2 3 67% 2 3 67% 2 3 67% 2 3 67% 2 3 67% 2 3 67% 2 3 17 11 100% 1 1 100% 1	1114 - Other Financial Officers	3	4	75%	-	-	0%	13	13	100%	16	17	94%
consulting 123 - Professional occupations in advertising, marketing and public relations - - 0% - - 0% 4 4 100% 4 4 100% 1221 - Administrative Officers - - 0% 4 4 100% 4 4 100% 8 8 100% 1223 - Human resources and Recruitment Officers - - 0% - - 0% 2 3 67% 2 3 67% 1225 - Purchasing Agents and Officers 6 10 60% - - 0% 16 21 76% 22 31 67% 1241 - Administrative Assistants 9 15 60% 1 1 100% 13 14 93% 23 30 77% 1311 - Accounting technicians and bookkeepers 1 3 33% 1 1 100% 13 13 100% 15 17 88% 1411 - General Office support workers 10 <t< td=""><td>1121 - Human Resources professionals</td><td>4</td><td>4</td><td>100%</td><td>-</td><td>-</td><td>0%</td><td>9</td><td>9</td><td>100%</td><td>13</td><td>13</td><td>100%</td></t<>	1121 - Human Resources professionals	4	4	100%	-	-	0%	9	9	100%	13	13	100%
1123 - Professional occupations in advertising, marketing and public relations	1122 - Professional Occupations in Business management			00/			00/			00/			00/
and public relations - - 0% - - 0% 4 4 100% 4 4 100% 4 4 100% 8 8 100% 1221 - Administrative Officers - - 0% 4 4 100% 4 4 100% 8 8 100% 1223 - Human resources and Recruitment Officers - - 0% - - 0% 2 3 67% 2 3 67% 1225 - Purchasing Agents and Officers 6 10 60% - - 0% 16 21 76% 22 31 71% 1241 - Administrative Assistants 9 15 60% 1 1 100% 13 14 93% 23 30 77% 1311 - Accounting technicians and bookkeepers 1 3 33% 1 1 100% 13 13 100% 15 17 88% 1411 - General Office support workers 10 10 100% - - 0% - - 0%<	consulting	-	-	U %	-	-	υ%	-	-	0%	-	-	U %
1221 - Administrative Officers	· · · · · · · · · · · · · · · · · · ·	_	_	0%	_	_	0%	1	1	100%	4	4	100%
1223 - Human resources and Recruitment Officers - - 0% - - 0% 2 3 67% 2 3 67% 1225 - Purchasing Agents and Officers 6 10 60% - - 0% 16 21 76% 22 31 71% 1241 - Administrative Assistants 9 15 60% 1 1 100% 13 14 93% 23 30 77% 1311 - Accounting technicians and bookkeepers 1 3 33% 1 1 100% 13 13 100% 15 17 88% 1411 - General Office support workers 10 10 100% - - 0% - - 0% 1 1 100% 15 17 88% 1431 - Accounting and Related Clerks - - 0% - - 0% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 <	and public relations			070			0/0			100/0	_	-	100/0
1225 - Purchasing Agents and Officers 6 10 60% - - 0% 16 21 76% 22 31 71% 1241 - Administrative Assistants 9 15 60% 1 1 100% 13 14 93% 23 30 77% 1311 - Accounting technicians and bookkeepers 1 3 33% 1 1 100% 13 13 100% 15 17 88% 1411 - General Office support workers 10 10 100% - - 0% - - 0% 10 10 100% 1431 - Accounting and Related Clerks - - 0% - - 0% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 1 100% 1 1 1 100% 1 1 1 1 100% 1 1 1 <td>1221 - Administrative Officers</td> <td>-</td> <td>-</td> <td>0%</td> <td>4</td> <td>4</td> <td>100%</td> <td>4</td> <td>4</td> <td>100%</td> <td>8</td> <td>8</td> <td>100%</td>	1221 - Administrative Officers	-	-	0%	4	4	100%	4	4	100%	8	8	100%
1241 - Administrative Assistants 9 15 60% 1 1 100% 13 14 93% 23 30 77% 1311 - Accounting technicians and bookkeepers 1 3 33% 1 1 100% 13 13 100% 15 17 88% 1411 - General Office support workers 10 10 100% - - 0% - - 0% 10 100% 1431 - Accounting and Related Clerks - - 0% - - 0% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 1 100% 1 1 1 100% 1 1 1 100% 1 1 1 1 1 1 1 1 1 1 1 1	1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	2	3	67%	2	3	67%
1311 - Accounting technicians and bookkeepers 1 3 33% 1 1 100% 13 13 100% 15 17 88% 1411 - General Office support workers 10 10 100% - - 0% - - 0% 10 10 100% 1431 - Accounting and Related Clerks - - 0% - - 0% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 1 100% 1 1 1 100% 1	1225 - Purchasing Agents and Officers	6	10	60%	-	-	0%	16	21	76%	22	31	71%
1411 - General Office support workers 10 10 100% - - 0% - - 0% 10 100% 1431 - Accounting and Related Clerks - - 0% - - 0% 1 1 100% 1 1 100% 2113 - Geologists, Geochemists and Geophysicists - - 0%	1241 - Administrative Assistants	9	15	60%	1	1	100%	13	14	93%	23	30	77%
1431 - Accounting and Related Clerks - - 0% - - 0% 1 1 100% 1 1 100% 1 1 100% 1 1 100% 1 1 100% - - 0% 1 1 1 1 1 1 1 1 1 1 1 <t< td=""><td>1311 - Accounting technicians and bookkeepers</td><td>1</td><td>3</td><td>33%</td><td>1</td><td>1</td><td>100%</td><td>13</td><td>13</td><td>100%</td><td>15</td><td>17</td><td>88%</td></t<>	1311 - Accounting technicians and bookkeepers	1	3	33%	1	1	100%	13	13	100%	15	17	88%
2113 - Geologists, Geochemists and Geophysicists - - 0% 26 31 84% 2132 - Mechanical Engineers 5 13 38% 1 1 100% 18 25 72% 24 39 62% 2133 - Electrical and Electronics Engineers 1 3 33% 1 8 13% 19 29 66% 21 40 53%	1411 - General Office support workers	10	10	100%	-	-	0%	-	-	0%	10	10	100%
2131 - Civil Engineers 10 11 91% 1 4 25% 15 16 94% 26 31 84% 2132 - Mechanical Engineers 5 13 38% 1 1 100% 18 25 72% 24 39 62% 2133 - Electrical and Electronics Engineers 1 3 33% 1 8 13% 19 29 66% 21 40 53%	1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	1	1	100%	1	1	100%
2132 - Mechanical Engineers 5 13 38% 1 1 100% 18 25 72% 24 39 62% 2133 - Electrical and Electronics Engineers 1 3 33% 1 8 13% 19 29 66% 21 40 53%	2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2133 - Electrical and Electronics Engineers 1 3 33% 1 8 13% 19 29 66% 21 40 53%	2131 - Civil Engineers	10	11	91%	1	4	25%	15	16	94%	26	31	84%
	2132 - Mechanical Engineers	5	13	38%	1	1	100%	18	25	72%	24	39	62%
2141 - Industrial and Manufacturing Engineers 10 23 43 % 0 % 16 21 76 % 26 44 59 %	2133 - Electrical and Electronics Engineers	1	3	33%	1	8	13%	19	29	66%	21	40	53%
	2141 - Industrial and Manufacturing Engineers	10	23	43%	-	-	0%	16	21	76%	26	44	59%
2144 - Geological Engineers 0% - 1 0% 0% - 1 0%	2144 - Geological Engineers	-	-	0%	-	1	0%	-	-	0%	-	1	0%
2147 - Computer Engineers (Except Software Engineers and Designers) 0% 0% 0% 0%		-	-	0%	-	-	0%	-	-	0%	-	-	0%
2148 - Other Professional Engineers, n.e.c. 2 3 67 % 1 7 14 % 24 30 80 % 27 40 68 %	,	2	3	67%	1	7	14%	24	30	80%	27	40	68%

		C&A			E&D			PM			Total	
		Total	Res as %									
4-Digit NOC Code	Res	Persons	of Total									
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	1	1	100%	1	2	50%
2154 - Land Surveyors	5	5	100%	-	-	0%	2	2	100%	7	7	100%
2171 - Information Systems Analysts and Consultants	-	-	0%	1	1	100%	11	11	100%	12	12	100%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	19	21	90%	1	1	100%	5	6	83%	25	28	89%
2232 - Mechanical Engineering Technologists and Technicians	3	3	100%	-	-	0%	3	3	100%	6	6	100%
2234 - Construction Estimators	_	_	0%	_	_	0%	1	1	100%	1	1	100%
2241 - Electrical and Electronics Engineering Technologists	_		0/6			070	1	1	100/6	-	-	100/6
and Technicians	4	4	100%	1	2	50%	22	24	92%	27	30	90%
2243 - Industrial Instrument Technicians and Mechanics	2	3	67%	-	-	0%	-	-	0%	2	3	67%
2251 - Architectural Technologists and Technicians	1	2	50%	-	-	0%	-	-	0%	1	2	50%
2253 - Drafting Technologists and Technicians	1	1	100%	1	3	33%	-	-	0%	2	4	50%
2263 - Inspectors in Public and Environmental Health and	19	24	79%	4	5	80%	10	12	83%	33	41	80%
Occupational Health and Safety	19	24	13/0	4	J	8070	10	12	65/6	33	41	80%
2264 - Construction Inspectors	-	-	0%	-	-	0%	5	7	71%	5	7	71%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	-	-	0%	-	-	0%
3234 - Paramedical Occupations	14	15	93%	-	-	0%	-	-	0%	14	15	93%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	2	2	100%	2	2	100%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	1	3	33%	1	2	50%	8	8	100%	10	13	77%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	3	3	100%	3	3	100%
4169 - Other Professional Occupations in Social Science,	_	_								_		
n.e.c.	1	2	50%	-	-	0%	-	-	0%	1	2	50%
4312 - Firefighters	12	12	100%	-	-	0%	-	-	0%	12	12	100%
6313 - Accommodation, travel, tourism and related	1	4	25%	_	_	0%	_	_	0%	1	4	25%
services supervisors	1	4								-	7	
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	8	8	100%	-	-	0%	-	-	0%	8	8	100%
6541 - Security Guards and Related security service Occupations	49	50	98%	1	1	100%	-	-	0%	50	51	98%
6711 - Food Counter Attendants, Kitchen Helpers and						_						
Related support Occupations	100	100	100%	-	-	0%	-	-	0%	100	100	100%
7201 - Contractors and supervisors, machining, metal												
forming, shaping and erecting trades and related	19	24	79%	-	-	0%	-	-	0%	19	24	79%
occupations												

		C&A			E&D			PM			Total	
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
4-Digit NOC Code	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
7202 - Contractors and Supervisors, Electrical Trades and	7	7	100%	_	_	0%	1	1	100%	8	8	100%
Telecommunications Occupations	'	,	100/6	_	-	0/6	1	1	100%		0	100%
7203 - Contractors and Supervisors, Pipefitting Trades	5	5	100%	-	-	0%	-	-	0%	5	5	100%
7204 - Contractors and Supervisors, Carpentry Trades	19	23	83%	-	-	0%	-	-	0%	19	23	83%
7205 - Contractors and Supervisors, Other Construction	15	19	79%	_	_	0%	3	3	100%	18	22	82%
Trades, Installers, Repairers and Servicers												
7233 - Sheet Metal Workers	11	11	100%	-	-	0%	-	-	0%	11	11	100%
7234 - Boilermakers	3	3	100%	-	-	0%	-	-	0%	3	3	100%
7236 - Ironworkers	63	67	94%	-	-	0%	-	-	0%	63	67	94%
7237 - Welders and Related Machine Operators	19	20	95%	-	-	0%	-	-	0%	19	20	95%
7242 - Industrial Electricians	129	129	100%	-	-	0%	2	3	67%	131	132	99%
7244 - Electrical Power Line and Cable Workers	1	1	100%	-	-	0%	10	10	100%	11	11	100%
7251 - Plumbers	3	3	100%	-	-	0%	-	-	0%	3	3	100%
7252 - Steamfitters, Pipefitters and Sprinkler System	20	22	91%			0%		_	0%	20	22	91%
Installers	20	22	91%	-	-	0%	-	_	0%	20	22	91%
7271 - Carpenters	180	185	97%	-	-	0%	-	-	0%	180	185	97%
7281 - Bricklayers	90	91	99%	-	-	0%	-	-	0%	90	91	99%
7293 - Insulators	2	2	100%	-	-	0%	-	-	0%	2	2	100%
7294 - Painters and Decorators (except interior	1	1	100%			0%		_	0%	1	1	100%
decorators)	1	1	100%	-	-	0%	-	_	0%	1		100%
7301 - Contractors and supervisors, mechanic trades	7	7	100%	-	-	0%	-	-	0%	7	7	100%
7302 - Contractors and supervisors, heavy equipment	12	12	100%			0%			0%	12	12	100%
operator crews	12	12	100/6	_	-	0/6	_	-	0/0	12	12	100%
7311 - Construction Millwrights and Industrial Mechanics	55	57	96%	-	-	0%	7	7	100%	62	64	97%
7312 - Heavy- Duty Equipment Mechanics	16	17	94%	-	-	0%	1	1	100%	17	18	94%
7371 - Crane Operators	30	30	100%	-	-	0%	-	-	0%	30	30	100%
7372 - Drillers and Blasters - Surface Mining, Quarrying	_	_	0%	_	_	0%	_	_	0%	_	_	0%
and Construction		_	0/0	_	_	070	_	_	076	_	-	076
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	11	11	100%	-	-	0%	2	2	100%	13	13	100%
7511 - Transport Truck Drivers	52	53	98%	-	-	0%	-	-	0%	52	53	98%
7512 - Bus Drivers, Subway Operators and Other Transit	25	25	100%	_	_	0%	_	_	0%	25	25	100%
Operators		23	100/0	_	-		_	-		23	23	
7521 - Heavy Equipment Operators (Except Crane)	64	64	100%	-	-	0%	2	2	100%	66	66	100%
7533 - Boat and Cable Ferry Operators and Related	_	_	0%	_	_	0%	_	_	0%	-	_	0%
Occupations												
7611 - Construction Trades Helpers and Labourers	17	17	100%	-	-	0%	1	1	100%	18	18	100%
7612 - Other Trades Helpers and Labourers	138	138	100%	-	-	0%	3	3	100%	141	141	100%

		C&A			E&D			PM			Total	
		Total	Res as %		Total	Res as %		Total	Res as %		Total	Res as %
4-Digit NOC Code	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total	Res	Persons	of Total
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	1	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators	3	3	100%	-	-	0%	1	1	100%	4	4	100%
Totals	1,347	1,444	93%	22	46	48%	318	372	85%	1,687	1,862	91%

Table 25 - Female Workers Hired by 4-Digit NOC Code (January 2019)

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
		Total	as % of		Total	as % of	Female	Total	as % of		Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
0016 - Senior Managers - Goods Production, Utilities, Transportation and Construction	1	3	33%	-	-	0%	1	8	13%	2	11	18%
0111 - Financial Managers	2	4	50%	_	_	0%	2	5	40%	4	9	44%
0112 - Human Resources Managers	1	9	11%	1	1	100%	1	2	50%	3	12	25%
0113 - Purchasing Managers	1	1	0%	1	_	0%	1	1	0%	3	2	0%
0113 - Purchasing Managers 0114 - Other Administrative Services Managers	1	1	100%	-	_	0%	2	3	67%	3	4	75%
0124 - Advertising, marketing and public relations	1	1	100%	-	-	U%		3	0776	3	- 4	/5%
managers	-	-	0%	-	-	0%	1	1	100%	1	1	100%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	2	4	50%	2	4	50%
0211 - Engineering Managers	1	3	33%	-	2	0%	1	7	14%	2	12	17%
0213 - Computer and Information Systems Managers	-	-	0%	-	1	0%	-	1	0%	-	2	0%
0711 - Construction Managers	-	17	0%	-	-	0%	-	20	0%	-	37	0%
1111 - Financial Auditors and Accountants	1	2	50%	-	-	0%	-	3	0%	1	5	20%
1114 - Other Financial Officers	3	4	75%	-	-	0%	8	13	62%	11	17	65%
1121 - Human Resources professionals	2	4	50%	-	-	0%	4	9	44%	6	13	46%
1122 - Professional Occupations in Business management		_	0%	_	_	0%	_	_	0%		_	0%
consulting		_	070	_	_	070		_	070	_	_	0,0
1123 - Professional occupations in advertising, marketing	_	_	0%	_	_	0%	3	4	75%	3	4	75%
and public relations												
1221 - Administrative Officers	-	-	0%	4	4	100%	3	4	75%	7	8	88%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	2	3	67%	2	3	67%
1225 - Purchasing Agents and Officers	5	10	50%	-	-	0%	8	21	38%	13	31	42%
1241 - Administrative Assistants	11	15	73%	1	1	100%	11	14	79%	23	30	77%
1311 - Accounting technicians and bookkeepers	2	3	67%	-	1	0%	12	13	92%	14	17	82%
1411 - General Office support workers	9	10	90%	-	-	0%	-	-	0%	9	10	90%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	1	1	100%	1	1	100%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	1	11	9%	-	4	0%	6	16	38%	7	31	23%
2132 - Mechanical Engineers	3	13	23%	-	1	0%	5	25	20%	8	39	21%
2133 - Electrical and Electronics Engineers	-	3	0%	-	8	0%	6	29	21%	6	40	15%
2141 - Industrial and Manufacturing Engineers	1	23	4%	-	-	0%	3	21	14%	4	44	9%
2144 - Geological Engineers	-	-	0%	-	1	0%	-	-	0%	-	1	0%
2147 - Computer Engineers (Except Software Engineers			0%			0%		_	0%			0%
and Designers)	_	-	U/0	_	-	U/0	1	-	U/0	_	-	U/0
2148 - Other Professional Engineers, n.e.c.	-	3	0%	1	7	14%	3	30	10%	4	40	10%

		C&A			E&D			PM			Total	
			Females			Females	_		Females			Females
4-Digit NOC Code	Females	Total Persons	as % of Total	Females	Total Persons	as % of Total	Female s	Total Persons	as % of Total	Females	Total Persons	as % of Total
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	_	0%	-	1	0%	_	2	0%
2154 - Land Surveyors	-	5	0%	-	_	0%	-	2	0%	_	7	0%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	1	0%	2	11	18%	2	12	17%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	_	-	0%
2231 - Civil Engineering Technologists and Technicians	4	21	19%	-	1	0%	-	6	0%	4	28	14%
2232 - Mechanical Engineering Technologists and		2	00/			00/		2	00/			00/
Technicians	-	3	0%	-	-	0%	-	3	0%	-	6	0%
2234 - Construction Estimators	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2241 - Electrical and Electronics Engineering Technologists and Technicians	-	4	0%	-	2	0%	-	24	0%	-	30	0%
2243 - Industrial Instrument Technicians and Mechanics	-	3	0%	-	-	0%	-	-	0%	_	3	0%
2251 - Architectural Technologists and Technicians	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2253 - Drafting Technologists and Technicians	1	1	100%	-	3	0%	-	-	0%	1	4	25%
2263 - Inspectors in Public and Environmental Health and	6	24	25%	1	5	20%	3	12	25%	10	41	24%
Occupational Health and Safety	О	24	25%	1	5	20%	3	12	25%	10	41	24%
2264 - Construction Inspectors	-	-	0%	-	-	0%	-	7	0%	-	7	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	-	-	0%	-	-	0%
3234 - Paramedical Occupations	5	15	33%	-	-	0%	-	-	0%	5	15	33%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	-	2	0%	-	2	0%
4161 - Natural and Applied Science Policy Researchers,	1	3	33%	_	2	0%	3	8	38%	4	13	31%
Consultants and Program Officers	_	3	33/0		2	070		O	30/0	1	13	31/0
4162 - Economists and Economic Policy Researchers and	-	-	0%	_	_	0%	2	3	67%	2	3	67%
Analysts												
4169 - Other Professional Occupations in Social Science, n.e.c.	1	2	50%	-	-	0%	-	-	0%	1	2	50%
4312 - Firefighters	1	12	8%	-	-	0%	-	-	0%	1	12	8%
6313 - Accommodation, travel, tourism and related	_	4	0%		_	0%		_	0%		4	0%
services supervisors	_	4	070	_	_		_	_	070	_	7	0/6
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	2	8	25%	-	-	0%	-	-	0%	2	8	25%
6541 - Security Guards and Related security service	6	50	12%	-	1	0%	_	_	0%	6	51	12%
Occupations		30	,-		_	2,0			2,2			,
6711 - Food Counter Attendants, Kitchen Helpers and	49	100	49%	-	-	0%	-	-	0%	49	100	49%
Related support Occupations												

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
		Total	as % of		Total	as % of	Female	Total	as % of		Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
7201 - Contractors and supervisors, machining, metal												
forming, shaping and erecting trades and related	-	24	0%	-	-	0%	-	-	0%	-	24	0%
occupations												
7202 - Contractors and Supervisors, Electrical Trades and	_	7	0%	-	_	0%	_	1	0%	_	8	0%
Telecommunications Occupations		_									_	
7203 - Contractors and Supervisors, Pipefitting Trades	-	5	0%	-	-	0%	-	-	0%	-	5	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	23	0%	-	-	0%	-	-	0%	-	23	0%
7205 - Contractors and Supervisors, Other Construction	_	19	0%	_	_	0%	_	3	0%	_	22	0%
Trades, Installers, Repairers and Servicers								_				
7233 - Sheet Metal Workers	1	11	9%	-	-	0%	-	-	0%	1	11	9%
7234 - Boilermakers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7236 - Ironworkers	3	67	4%	-	-	0%	-	-	0%	3	67	4%
7237 - Welders and Related Machine Operators	-	20	0%	-	-	0%	-	-	0%	-	20	0%
7242 - Industrial Electricians	3	129	2%	-	-	0%	-	3	0%	3	132	2%
7244 - Electrical Power Line and Cable Workers	-	1	0%	-	-	0%	-	10	0%	-	11	0%
7251 - Plumbers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7252 - Steamfitters, Pipefitters and Sprinkler System	_	22	0%			0%		_	0%		22	0%
Installers	_	22	U/0	_	-	070	_	-	U/0	_	22	0/6
7271 - Carpenters	6	185	3%	-	-	0%	-	-	0%	6	185	3%
7281 - Bricklayers	8	91	9%	-	-	0%	-	-	0%	8	91	9%
7293 - Insulators	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7294 - Painters and Decorators (except interior		1	0%			0%			0%		1	0%
decorators)	_	1	U%	-	-	U%	_	-	U%	-	1	0%
7301 - Contractors and supervisors, mechanic trades	-	7	0%	-	-	0%	-	-	0%	-	7	0%
7302 - Contractors and supervisors, heavy equipment	_	12	0%	_	_	0%	_	_	0%	_	12	0%
operator crews			070						070		12	070
7311 - Construction Millwrights and Industrial Mechanics	7	57	12%	-	-	0%	1	7	14%	8	64	13%
7312 - Heavy- Duty Equipment Mechanics	-	17	0%	-	-	0%	-	1	0%	-	18	0%
7371 - Crane Operators	1	30	3%	-	-	0%	-	-	0%	1	30	3%
7372 - Drillers and Blasters - Surface Mining, Quarrying		_	0%			0%			0%			0%
and Construction	_	_	U/0	_	-	070	_	-	U/0	_	-	0/6
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	-	11	0%	-	-	0%	1	2	50%	1	13	8%
7511 - Transport Truck Drivers	1	53	2%	-	-	0%	-	-	0%	1	53	2%
7512 - Bus Drivers, Subway Operators and Other Transit		25	0%			0%			0%		25	0%
Operators	_	25	U%	_	-	U%] -	-	U%	_	25	U%
7521 - Heavy Equipment Operators (Except Crane)	2	64	3%	-	-	0%	_	2	0%	2	66	3%

		C&A			E&D			PM			Total	
			Females			Females			Females			Females
		Total	as % of		Total	as % of	Female	Total	as % of		Total	as % of
4-Digit NOC Code	Females	Persons	Total	Females	Persons	Total	S	Persons	Total	Females	Persons	Total
7533 - Boat and Cable Ferry Operators and Related		_	0%			0%			0%			0%
Occupations	_	_	070	_	_	070	_	_	070	_	_	070
7611 - Construction Trades Helpers and Labourers	2	17	12%	-	-	0%	-	1	0%	2	18	11%
7612 - Other Trades Helpers and Labourers	17	138	12%	-	-	0%	-	3	0%	17	141	12%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators	-	3	0%	-	-	0%	-	1	0%	-	4	0%
Totals	171	1,444	12%	8	46	17%	97	372	26%	276	1,862	15%

Table 26 - Aboriginal Workers by 4-Digit NOC Code (January 2019)

	C&A			E&D			PM			Total		
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
0016 - Senior Managers - Goods Production, Utilities,	_	15	0%	_	_	0%	_	_	0%	_	15	0%
Transportation and Construction		13										
0111 - Financial Managers	-	-	0%	-	-	0%	-	2	0%	-	2	0%
0112 - Human Resources Managers	-	3	0%	-	2	0%	-	8	0%	-	13	0%
0113 - Purchasing Managers	-	-	0%	-	-	0%	-	3	0%	-	3	0%
0114 - Other Administrative Services Managers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
0124 - Advertising, marketing and public relations	_	12	0%	-	_	0%	_	_	0%	_	12	0%
managers												
0125 - Other Business Services Managers	-	4	0%	-	-	0%	-	-	0%	-	4	0%
0211 - Engineering Managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0213 - Computer and Information Systems Managers	1	8	13%	-	-	0%	-	-	0%	1	8	13%
0711 - Construction Managers	5	50	10%	-	1	0%	-	-	0%	5	51	10%
1111 - Financial Auditors and Accountants	37	100	37%	-	-	0%	-	-	0%	37	100	37%
1114 - Other Financial Officers	1	24	4%	-	-	0%	-	-	0%	1	24	4%
1121 - Human Resources professionals	1	7	14%	-	-	0%	-	1	0%	1	8	13%
1122 - Professional Occupations in Business management	_	5	0%	_		0%	_	_	0%	_	5	0%
consulting		3	076	_		070			076	_	,	076
1123 - Professional occupations in advertising, marketing and public relations	1	23	4%	-	-	0%	-	-	0%	1	23	4%
1221 - Administrative Officers	-	19	0%	-	-	0%	-	3	0%	-	22	0%
1223 - Human resources and Recruitment Officers	-	11	0%	-	-	0%	-	-	0%	-	11	0%
1225 - Purchasing Agents and Officers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
1241 - Administrative Assistants	3	67	4%	-	-	0%	-	-	0%	3	67	4%
1311 - Accounting technicians and bookkeepers	1	20	5%	-	-	0%	-	-	0%	1	20	5%
1411 - General Office support workers	8	129	6%	-	-	0%	-	3	0%	8	132	6%
1431 - Accounting and Related Clerks	-	1	0%	-	-	0%	-	10	0%	-	11	0%
2113 - Geologists, Geochemists and Geophysicists	-	3	0%	-	-	0%	-	-	0%	-	3	0%
2131 - Civil Engineers	5	22	23%	-	-	0%	-	-	0%	5	22	23%
2132 - Mechanical Engineers	14	185	8%	-	-	0%	-	-	0%	14	185	8%
2133 - Electrical and Electronics Engineers	5	91	5%	-	-	0%	-	-	0%	5	91	5%
2141 - Industrial and Manufacturing Engineers	_	2	0%	-	-	0%	-	-	0%	-	2	0%
2144 - Geological Engineers	_	1	0%	-	-	0%	-	-	0%	-	1	0%

		C&A			E&D			PM		Total		
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
2147 - Computer Engineers (Except Software Engineers and Designers)	-	7	0%	-	-	0%	-	-	0%	-	7	0%
2148 - Other Professional Engineers, n.e.c.	1	12	8%	_	_	0%	_	_	0%	1	12	8%
2151 - Architects	2	57	4%	_	_	0%	_	7	0%	2	64	3%
2153 - Urban and Land Use Planners	2	17	12%	_	_	0%	_	1	0%	2	18	11%
2154 - Land Surveyors	3	30	10%	-	_	0%	-	-	0%	3	30	10%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	_	0%	-	-	0%	_	-	0%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	-	11	0%	-	_	0%	-	2	0%	-	13	0%
2232 - Mechanical Engineering Technologists and Technicians	12	53	23%	-	-	0%	-	-	0%	12	53	23%
2234 - Construction Estimators	5	25	20%	-	_	0%	-	-	0%	5	25	20%
2241 - Electrical and Electronics Engineering Technologists and Technicians	11	64	17%	-	-	0%	-	2	0%	11	66	17%
2243 - Industrial Instrument Technicians and Mechanics	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2251 - Architectural Technologists and Technicians	7	17	41%	-	-	0%	-	1	0%	7	18	39%
2253 - Drafting Technologists and Technicians	65	138	47%	-	-	0%	-	3	0%	65	141	46%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2264 - Construction Inspectors	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	-	-	0%	-	-	0%
3234 - Paramedical Occupations	-	3	0%	-	-	0%	-	1	0%	-	4	0%
4112 - Lawyers and Quebec Notaries	203	1,444	14%	1	46	2%	8	372	2%	212	1,862	11%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	-	15	0%	-	-	0%	-	-	0%	-	15	0%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	-	2	0%	-	2	0%
4169 - Other Professional Occupations in Social Science, n.e.c.	-	3	0%	-	2	0%	-	8	0%	-	13	0%
4312 - Firefighters	-	-	0%	-	-	0%	-	3	0%	-	3	0%
6313 - Accommodation, travel, tourism and related	-	2	0%	-	-	0%	-	-	0%	-	2	0%
services supervisors 6321 - Chefs		12	0%			0%			0%		12	0%
	_	4	0% 0%	_	-	0% 0%] <u>-</u>	-	0% 0%		4	0% 0%
6322 - Cooks	-	4	U%	-	-	U%	-	-	U%	•	4	U%

	C&A				E&D		PM			Total		
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
6541 - Security Guards and Related security service	_	_	0%	_	-	0%	-	_	0%	_	-	0%
Occupations			0,0			•/-			•/			•/-
6711 - Food Counter Attendants, Kitchen Helpers and Related support Occupations	1	8	13%	-	-	0%	-	-	0%	1	8	13%
7201 - Contractors and supervisors, machining, metal												
forming, shaping and erecting trades and related	5	50	10%	_	1	0%	-	-	0%	5	51	10%
occupations												
7202 - Contractors and Supervisors, Electrical Trades and	37	100	37%	_	_	0%	_	_	0%	37	100	37%
Telecommunications Occupations												
7203 - Contractors and Supervisors, Pipefitting Trades	1	24	4%	-	-	0%	-	-	0%	1	24	4%
7204 - Contractors and Supervisors, Carpentry Trades	1	7	14%	-	-	0%	-	1	0%	1	8	13%
7205 - Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers	-	5	0%	-	-	0%	-	-	0%	-	5	0%
7233 - Sheet Metal Workers	1	23	4%	_	_	0%	_	_	0%	1	23	4%
7234 - Boilermakers	_	19	0%	_	_	0%	-	3	0%	-	22	0%
7236 - Ironworkers	_	11	0%	_	_	0%	_	-	0%	_	11	0%
7237 - Welders and Related Machine Operators	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7242 - Industrial Electricians	3	67	4%	-	-	0%	-	-	0%	3	67	4%
7244 - Electrical Power Line and Cable Workers	1	20	5%	_	-	0%	-	-	0%	1	20	5%
7251 - Plumbers	8	129	6%	_	-	0%	-	3	0%	8	132	6%
7252 - Steamfitters, Pipefitters and Sprinkler System		1	0%			0%		10	0%		11	0%
Installers	-	1	U%	-	-	U%	-	10	U%	-	11	U%
7271 - Carpenters	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7281 - Bricklayers	5	22	23%	-	-	0%	-	-	0%	5	22	23%
7293 - Insulators	14	185	8%	-	-	0%	-	-	0%	14	185	8%
7294 - Painters and Decorators (except interior	5	91	5%	-	-	0%	-	-	0%	5	91	5%
decorators)		2	00/			00/			00/		2	00/
7301 - Contractors and supervisors, mechanic trades	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7302 - Contractors and supervisors, heavy equipment operator crews	-	1	0%	-	-	0%	-	-	0%	-	1	0%
7311 - Construction Millwrights and Industrial Mechanics	_	7	0%	_	_	0%	_	_	0%	_	7	0%
7312 - Heavy- Duty Equipment Mechanics	1	12	8%	-	_	0%	-	_	0%	1	12	8%
7371 - Crane Operators	2	57	4%	-	-	0%	-	7	0%	2	64	3%
7372 - Drillers and Blasters - Surface Mining, Quarrying	_	47	420/					4	00/	_	40	440/
and Construction	2	17	12%	-	-	0%	1	1	0%	2	18	11%

	C&A				E&D		PM			Total		
4-Digit NOC Code	Aboriginals	Total Persons	Aboriginals as % of Total									
7384 - Other Trades and Related Occupations, n.e.c.	3	30	10%	-	-	0%	-	-	0%	3	30	10%
7452 - Material Handlers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7511 - Transport Truck Drivers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	-	11	0%	1	-	0%	1	2	0%	1	13	0%
7521 - Heavy Equipment Operators (Except Crane)	12	53	23%	-	-	0%	1	-	0%	12	53	23%
7533 - Boat and Cable Ferry Operators and Related Occupations	5	25	20%	-	-	0%	-	-	0%	5	25	20%
7611 - Construction Trades Helpers and Labourers	11	64	17%	-	-	0%	-	2	0%	11	66	17%
7612 - Other Trades Helpers and Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8211 - Supervisors, Logging and Forestry	7	17	41%	-	-	0%	-	1	0%	7	18	39%
8241 - Logging Machinery Operators	65	138	47%	-	-	0%	-	3	0%	65	141	46%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
Totals	-	-	0%	-	-	0%	-	-	0%	•	-	0%

Table 27 - Labrador Residents by 4-Digit NOC Code (January 2019)

	C&A				E&D		PM			Total		
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
0016 - Senior Managers - Goods Production, Utilities,	_	3	0%	_	_	0%	2	8	25%	2	11	18%
Transportation and Construction			•,-				_	_		_		
0111 - Financial Managers	-	4	0%	-	-	0%	-	5	0%	-	9	0%
0112 - Human Resources Managers	3	9	33%	-	1	0%	1	2	50%	4	12	33%
0113 - Purchasing Managers	-	1	0%	-	-	0%	-	1	0%	-	2	0%
0114 - Other Administrative Services Managers	-	1	0%	-	-	0%	-	3	0%	-	4	0%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	-	1	0%	-	1	0%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	-	4	0%	-	4	0%
0211 - Engineering Managers	-	3	0%	-	2	0%	1	7	14%	1	12	8%
0213 - Computer and Information Systems Managers	-	-	0%	-	1	0%	-	1	0%	-	2	0%
0711 - Construction Managers	-	17	0%	-	-	0%	1	20	5%	1	37	3%
1111 - Financial Auditors and Accountants	-	2	0%	-	-	0%	-	3	0%	-	5	0%
1114 - Other Financial Officers	-	4	0%	-	-	0%	-	13	0%	-	17	0%
1121 - Human Resources professionals	1	4	25%	-	-	0%	2	9	22%	3	13	23%
1122 - Professional Occupations in Business management consulting	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1123 - Professional occupations in advertising, marketing and public relations	-	-	0%	-	-	0%	-	4	0%	-	4	0%
1221 - Administrative Officers	-	-	0%	-	4	0%	2	4	50%	2	8	25%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	3	0%	-	3	0%
1225 - Purchasing Agents and Officers	-	10	0%	-	-	0%	-	21	0%	-	31	0%
1241 - Administrative Assistants	1	15	7%	-	1	0%	1	14	7%	2	30	7%
1311 - Accounting technicians and bookkeepers	-	3	0%	-	1	0%	-	13	0%	-	17	0%
1411 - General Office support workers	3	10	30%	-	-	0%	-	-	0%	3	10	30%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	-	11	0%	-	4	0%	2	16	13%	2	31	6%
2132 - Mechanical Engineers	-	13	0%	1	1	100%	2	25	8%	3	39	8%
2133 - Electrical and Electronics Engineers	-	3	0%	-	8	0%	3	29	10%	3	40	8%
2141 - Industrial and Manufacturing Engineers	2	23	9%	-	-	0%	1	21	5%	3	44	7%
2144 - Geological Engineers	-	-	0%	-	1	0%	-	-	0%	-	1	0%

		C&A			E&D			PM		Total		
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
2147 - Computer Engineers (Except Software Engineers			00/			00/			00/			00/
and Designers)	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2148 - Other Professional Engineers, n.e.c.	-	3	0%	-	7	0%	2	30	7%	2	40	5%
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	1	0%	-	2	0%
2154 - Land Surveyors	-	5	0%	-	-	0%	-	2	0%	-	7	0%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	1	0%	1	11	9%	1	12	8%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	1	21	5%	-	1	0%	2	6	33%	3	28	11%
2232 - Mechanical Engineering Technologists and Technicians	1	3	33%	-	-	0%	3	3	100%	4	6	67%
2234 - Construction Estimators	-	-	0%	-	-	0%	-	1	0%	-	1	0%
2241 - Electrical and Electronics Engineering Technologists and Technicians	-	4	0%	-	2	0%	14	24	58%	14	30	47%
2243 - Industrial Instrument Technicians and Mechanics	-	3	0%	-	-	0%	2	-	0%	2	3	67%
2251 - Architectural Technologists and Technicians	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2253 - Drafting Technologists and Technicians	-	1	0%	-	3	0%	1	-	0%	1	4	25%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	-	24	0%	1	5	20%	3	12	25%	4	41	10%
2264 - Construction Inspectors	-	-	0%	-	-	0%	-	7	0%	-	7	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	-	0%	-	-	0%	1	-	0%	1	-	0%
3234 - Paramedical Occupations	7	15	47%	-	-	0%	-	-	0%	7	15	47%
4112 - Lawyers and Quebec Notaries	-	-	0%	-	-	0%	-	2	0%	-	2	0%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	1	3	33%	1	2	50%	2	8	25%	4	13	31%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	-	3	0%	-	3	0%
4169 - Other Professional Occupations in Social Science,	1	2	50%			0%			0%	1	2	50%
n.e.c.		۷	30%	_	-	U70	_	-	U70		۷	30%
4312 - Firefighters	-	12	0%	-	-	0%	1	-	0%	1	12	8%
6313 - Accommodation, travel, tourism and related	_	4	0%	_	_	0%	_	_	0%	_	4	0%
services supervisors		*									•	
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	2	8	25%	-	-	0%	-	-	0%	2	8	25%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
6541 - Security Guards and Related security service	30	50	60%	1	1	100%	-	-	0%	31	51	61%
Occupations 6711 - Food Counter Attendants, Kitchen Helpers and Related support Occupations	65	100	65%	-	-	0%	-	-	0%	65	100	65%
7201 - Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	-	24	0%	-	-	0%	-	-	0%	-	24	0%
7202 - Contractors and Supervisors, Electrical Trades and Telecommunications Occupations	-	7	0%	-	-	0%	1	1	100%	1	8	13%
7203 - Contractors and Supervisors, Pipefitting Trades	-	5	0%	-	-	0%	-	-	0%	-	5	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	23	0%	-	-	0%	-	-	0%	-	23	0%
7205 - Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers	2	19	11%	-	-	0%	2	3	67%	4	22	18%
7233 - Sheet Metal Workers	6	11	55%	-	-	0%	-	-	0%	6	11	55%
7234 - Boilermakers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
7236 - Ironworkers	9	67	13%	-	-	0%	-	-	0%	9	67	13%
7237 - Welders and Related Machine Operators	2	20	10%	-	-	0%	1	-	0%	3	20	15%
7242 - Industrial Electricians	30	129	23%	-	-	0%	13	3	433%	43	132	33%
7244 - Electrical Power Line and Cable Workers	-	1	0%	-	-	0%	12	10	120%	12	11	109%
7251 - Plumbers	1	3	33%	-	-	0%	2	-	0%	3	3	100%
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	4	22	18%	-	-	0%	-	-	0%	4	22	18%
7271 - Carpenters	18	185	10%	-	-	0%	7	-	0%	25	185	14%
7281 - Bricklayers	2	91	2%	-	-	0%	-	-	0%	2	91	2%
7293 - Insulators	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7294 - Painters and Decorators (except interior decorators)	-	1	0%	-	-	0%	-	-	0%	-	1	0%
7301 - Contractors and supervisors, mechanic trades	1	7	14%	-	-	0%	-	-	0%	1	7	14%
7302 - Contractors and supervisors, heavy equipment operator crews	-	12	0%	-	-	0%	-	-	0%	-	12	0%
7311 - Construction Millwrights and Industrial Mechanics			-	-	0%	3	7	43%	9	64	14%	
7312 - Heavy- Duty Equipment Mechanics	5	17	29%	-	-	0%	1	1	100%	6	18	33%
7371 - Crane Operators		30	17%	-	-	0%	-	-	0%	5	30	17%
7372 - Drillers and Blasters - Surface Mining, Quarrying and Construction	-	-	0%	-	-	0%	-	-	0%	-	-	0%

		C&A			E&D		PM			Total		
4-Digit NOC Code	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total	Lab Residents	Total Persons	Lab Residents as % of Total
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	3	11	27%	-	-	0%	2	2	100%	5	13	38%
7511 - Transport Truck Drivers	21	53	40%	-	-	0%	-	-	0%	21	53	40%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	22	25	88%	-	-	0%	-	-	0%	22	25	88%
7521 - Heavy Equipment Operators (Except Crane)	30	64	47%	-	-	0%	3	2	150%	33	66	50%
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	-	17	0%	-	-	0%	2	1	200%	2	18	11%
7612 - Other Trades Helpers and Labourers	81	138	59%	-	-	0%	12	3	400%	93	141	66%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators	-	3	0%	-	-	0%	3	1	300%	3	4	75%
Totals	366	1,444	25%	4	46	9%	114	372	31%	484	1,862	26%

Table 28 - Labrador Residents Working in Labrador by 4-Digit NOC Code (January 2019)

		C&A			E&D			PM		Total		
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
0016 - Senior Managers - Goods Production, Utilities,	_	2	0%	_	_	0%	1	2	50%	1	4	25%
Transportation and Construction					_	076	_	2		•	7	
0111 - Financial Managers	-	3	0%	-	-	0%	-	-	0%	-	3	0%
0112 - Human Resources Managers	2	7	29%	-	-	0%	1	1	100%	3	8	38%
0113 - Purchasing Managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0114 - Other Administrative Services Managers	-	1	0%	-	-	0%	2	2	100%	2	3	67%
0124 - Advertising, marketing and public relations managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0125 - Other Business Services Managers	-	-	0%	-	-	0%	-	1	0%	-	1	0%
0211 - Engineering Managers	-	1	0%	-	-	0%	-	-	0%	-	1	0%
0213 - Computer and Information Systems Managers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
0711 - Construction Managers	-	13	0%	-	-	0%	1	16	6%	1	29	3%
1111 - Financial Auditors and Accountants	-	2	0%	-	-	0%	-	-	0%	-	2	0%
1114 - Other Financial Officers	-	1	0%	-	-	0%	-	3	0%	-	4	0%
1121 - Human Resources professionals	1	3	33%	-	-	0%	2	3	67%	3	6	50%
1122 - Professional Occupations in Business management consulting	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1123 - Professional occupations in advertising, marketing and public relations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1221 - Administrative Officers	-	-	0%	-	-	0%	2	2	100%	2	2	100%
1223 - Human resources and Recruitment Officers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
1225 - Purchasing Agents and Officers	1	7	14%	-	-	0%	-	9	0%	1	16	6%
1241 - Administrative Assistants	2	12	17%	-	-	0%	1	2	50%	3	14	21%
1311 - Accounting technicians and bookkeepers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
1411 - General Office support workers	8	10	80%	-	-	0%	-	-	0%	8	10	80%
1431 - Accounting and Related Clerks	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2113 - Geologists, Geochemists and Geophysicists	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2131 - Civil Engineers	-	9	0%	-	-	0%	-	7	0%	-	16	0%
2132 - Mechanical Engineers	-	12	0%	-	-	0%	-	11	0%	-	23	0%
2133 - Electrical and Electronics Engineers		3	0%	-	-	0%	-	10	0%	-	13	0%
2141 - Industrial and Manufacturing Engineers		21	14%	-	-	0%	1	10	10%	4	31	13%
2144 - Geological Engineers		_	0%		1	0%		-	0%		1	0%

		C&A			E&D			PM		Total		
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
2147 - Computer Engineers (Except Software Engineers			0%			0%			0%			0%
and Designers)		_			_			_		_	_	
2148 - Other Professional Engineers, n.e.c.	-	2	0%	-	-	0%	1	8	13%	1	10	10%
2151 - Architects	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2153 - Urban and Land Use Planners	-	1	0%	-	-	0%	-	-	0%	-	1	0%
2154 - Land Surveyors	1	5	20%	-	-	0%	-	2	0%	1	7	14%
2171 - Information Systems Analysts and Consultants	-	-	0%	-	-	0%	1	3	33%	1	3	33%
2221 - Biological Technologists and Technicians	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2231 - Civil Engineering Technologists and Technicians	1	21	5%	-	-	0%	1	2	50%	2	23	9%
2232 - Mechanical Engineering Technologists and Technicians	1	3	33%	-	-	0%	1	2	50%	2	5	40%
2234 - Construction Estimators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
2241 - Electrical and Electronics Engineering Technologists and Technicians	-	4	0%	-	-	0%	7	11	64%	7	15	47%
2243 - Industrial Instrument Technicians and Mechanics	-	3	0%	-	-	0%	-	-	0%	-	3	0%
2251 - Architectural Technologists and Technicians	-	2	0%	-	-	0%	-	-	0%	-	2	0%
2253 - Drafting Technologists and Technicians	-	1	0%	-	-	0%	-	-	0%	-	1	0%
2263 - Inspectors in Public and Environmental Health and Occupational Health and Safety	-	22	0%	1	4	25%	1	5	20%	2	31	6%
2264 - Construction Inspectors	-	-	0%	-	-	0%	-	4	0%	-	4	0%
2271 - Air Pilots, Flight Engineers and Flying Instructors	-	_	0%	-	_	0%	-	-	0%	-	-	0%
3234 - Paramedical Occupations	7	15	47%	-	_	0%	-	_	0%	7	15	47%
4112 - Lawyers and Quebec Notaries	_	_	0%	-	_	0%	-	_	0%	_	-	0%
4161 - Natural and Applied Science Policy Researchers, Consultants and Program Officers	-	3	0%	-	1	0%	-	2	0%	-	6	0%
4162 - Economists and Economic Policy Researchers and Analysts	-	-	0%	-	-	0%	-	-	0%	-	-	0%
4169 - Other Professional Occupations in Social Science,	1	2	F00/			00/			00/	1	-	F00/
n.e.c.	1	2	50%	-	-	0%	-	-	0%	1	2	50%
4312 - Firefighters	-	10	0%	-	-	0%	-	-	0%	-	10	0%
6313 - Accommodation, travel, tourism and related	_	4	0%	_	_	0%	_	-	0%	_	4	0%
services supervisors	_	4	U/0	-	-	U/0	-	-	U/0]	7	U/0
6321 - Chefs	-	-	0%	-	-	0%	-	-	0%	-	-	0%
6322 - Cooks	2	8	25%	-	-	0%	-	-	0%	2	8	25%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
6541 - Security Guards and Related security service	27	F.O.	E 40/	4	4	1000/			00/	20	F4	FF0/
Occupations	27	50	54%	1	1	100%	-	-	0%	28	51	55%
6711 - Food Counter Attendants, Kitchen Helpers and	66	99	67%	-	-	0%	-	-	0%	66	99	67%
Related support Occupations												
7201 - Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	1	24	4%	-	-	0%	-	-	0%	1	24	4%
7202 - Contractors and Supervisors, Electrical Trades and Telecommunications Occupations	-	7	0%	-	-	0%	-	-	0%	-	7	0%
7203 - Contractors and Supervisors, Pipefitting Trades	-	5	0%	-	-	0%	-	-	0%	-	5	0%
7204 - Contractors and Supervisors, Carpentry Trades	-	22	0%	-	-	0%	-	-	0%	-	22	0%
7205 - Contractors and Supervisors, Other Construction	2	18	11%	_	_	0%	1	1	100%	3	19	16%
Trades, Installers, Repairers and Servicers							_	-				
7233 - Sheet Metal Workers	6	11	55%	-	-	0%	-	-	0%	6	11	55%
7234 - Boilermakers	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7236 - Ironworkers	9	66	14%	-	-	0%	-	-	0%	9	66	14%
7237 - Welders and Related Machine Operators	2	19	11%	-	-	0%	-	-	0%	2	19	11%
7242 - Industrial Electricians	30	125	24%	-	-	0%	-	2	0%	30	127	24%
7244 - Electrical Power Line and Cable Workers	-	1	0%	-	-	0%	5	5	100%	5	6	83%
7251 - Plumbers	1	3	33%	-	-	0%	-	-	0%	1	3	33%
7252 - Steamfitters, Pipefitters and Sprinkler System Installers	4	22	18%	-	-	0%	-	-	0%	4	22	18%
7271 - Carpenters	19	185	10%	-	-	0%	-	-	0%	19	185	10%
7281 - Bricklayers	7	91	8%	-	-	0%	-	-	0%	7	91	8%
7293 - Insulators	-	2	0%	-	-	0%	-	-	0%	-	2	0%
7294 - Painters and Decorators (except interior decorators)	-	1	0%	-	-	0%	-	-	0%	-	1	0%
7301 - Contractors and supervisors, mechanic trades	1	6	17%	-	-	0%	-	-	0%	1	6	17%
7302 - Contractors and supervisors, heavy equipment operator crews	-	12	0%	-	-	0%	-	-	0%	-	12	0%
7311 - Construction Millwrights and Industrial Mechanics	8	57	14%	-	-	0%	-	-	0%	8	57	14%
7312 - Heavy- Duty Equipment Mechanics		17	29%	-	-	0%	1	1	100%	6	18	33%
7371 - Crane Operators		30	27%	-	-	0%	-	-	0%	8	30	27%
7372 - Drillers and Blasters - Surface Mining, Quarrying and Construction	-	-	0%	-	-	0%	-	-	0%	-	-	0%

		C&A			E&D			PM			Total	
4-Digit NOC Code	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total	Lab Residents	Total Persons Working in Lab	Lab Residents as % of Total
7384 - Other Trades and Related Occupations, n.e.c.	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7452 - Material Handlers	3	11	27%	-	-	0%	1	1	100%	4	12	33%
7511 - Transport Truck Drivers	26	53	49%	-	-	0%	-	-	0%	26	53	49%
7512 - Bus Drivers, Subway Operators and Other Transit Operators	22	25	88%	-	-	0%	-	-	0%	22	25	88%
7521 - Heavy Equipment Operators (Except Crane)	27	64	42%	-	-	0%	2	2	100%	29	66	44%
7533 - Boat and Cable Ferry Operators and Related Occupations	-	-	0%	-	-	0%	-	-	0%	-	-	0%
7611 - Construction Trades Helpers and Labourers	12	17	71%	-	-	0%	1	1	100%	13	18	72%
7612 - Other Trades Helpers and Labourers	98	138	71%	-	-	0%	3	3	100%	101	141	72%
8211 - Supervisors, Logging and Forestry	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8241 - Logging Machinery Operators	-	-	0%	-	-	0%	-	-	0%	-	-	0%
8616 - Logging and Forestry Labourers	-	-	0%	-	-	0%	-	-	0%	-	-	0%
9241 - Power Engineers and power system operators	-	3	0%	-	-	0%	-	1	0%	-	4	0%
Totals	414	1,401	30%	2	7	29%	37	135	27%	453	1,543	29%

Appendix B – Contracts Awarded Since Project Sanction

Table 29 - Contracts Awarded Since Project Sanction

Package #	Package Title	Award Date	Successful Bidder(s)
CH0031-001	Supply and Install Mechanical and Electrical	16-Jun-17	Cahill-Ganotec Joint Venture
	Auxiliaries (MF)		
CH0052-002	Muskrat Falls Habitat Compensation Works	18-Aug-2016	Johnsons Construction Limited
CH0049-004	Installation of Debris/Ice/Safety Boom	18-Jul-2016	Johnson's Construction Limited
CT0327-024	350 kV HVdc Long Range Mountains (LRM)	18-May-2016	Mike Kelly & Sons Ltd.
	Access Clearing	,	,
CH0049-003	Fabrication and Supply of Debris, Ice, Safety	7-Apr-2016	M&M Offshore Ltd.
CC	Boom	, , ,p. 2020	
CT0327-051	HVdc Clearing – Blocks 17 & 18	01-Apr-16	Springdale Forest Resources Inc.
CD0501-001	Supply and Install Permanent Communication	21-Mar-16	Bell Aliant Regional Communications,
CD0301-001	Systems, Optical Transport Network (OTN)	21-IVIAI-10	L.P.
CD0501-004	Transition Compounds – Civil Works	2-Mar-16	
	·		Pennecon Heavy Civil Limited
SM0700-024	Transportation of Transmission Line Material	07-Jan-16	Hunt's Transport
	(Island of Newfoundland)		PTL Services / CSL Services
			Christopher's Trucking
			Akita Equipment & Auto Transport
CD510-002	Supply and Install Permanent Communications	06-Jan-16	Talon Energy Services Inc.
	Systems-Prefabricated Buildings		
CT0327-017	HVdc Clearing and Access – Blocks 15 & 16	18-Sept-15	Springdale Forest Resources
CH0009-001	Construction of North and South Dams	14-Aug-15	Barnard Pennecon Limited Partnership
CT0342-002	Transmission Line Construction (HVac 230kV	11-Aug-15	Locke's Electrical Limited
	Modifications and NL Electrode Line)		
LC-PM-186	Project Completion System	23-Jun-15	IBS Canada
CD0508	Supply and Install Electrode Sites	02-Mar-15	H.J.O' Connell Construction Ltd.
CT0327-015	HVdc Clearing and Access – Section 1 (Blocks	09-Jan-15	Johnson's Construction Limited
	Nos. 9, 10, 11, and 12)		
CH0008	North Spur Stabilization Works	23-Dec-14	Gilbert Newfoundland & Labrador
			Contracting Limited
CT0327-014	HVdc Clearing and Access – Section 1 (Blocks	19-Dec-14	Springdale Forest Resources Inc.
CT0227 011	Nos. 13 & 14)	22 Can 14	COT Enterprises Ltd
CT0327-011	HVdc Clearing and Access – Section 1 (Blocks Nos. 7 & Partial 6)	23-Sep-14	C&T Enterprises Ltd.
CT0327-013	HVdc Clearing and Access-Section 1 (Blocks 4, 5	2-Sep-14	Johnson's Construction Limited
C10327 013	and 6)	2 3cp 14	Johnson's Constituction Emitted
CD0502	Construction of AC Substations	22-Aug-14	Alstom Grid Canada, Inc.
CT0342	Construction of AC Transmission Lines – Island	19-Aug-14	Locke's Electrical Limited
CD0534	Supply & Install Synchronous Condensers at	15-Aug-14	ALSTOM Renewable Power Canada
	Soldiers Pond		Inc.
CT0327	Construction of 350kV HVdc Transmission Line	8-Aug-14	Valard Construction LP
PH0015	Supply of Isolated Phase Bus	25-Jul-14	Alfa Standard s.p.a
CT0327-010	HVdc Clearing and Access-Section 1	22-Jul-14	Springdale Forest Resources
CD0501	Supply & Install Converters and Cable	19-Jun-14	Alstom Grid Canada Inc.
DT0224	Transition Compounds	20 May 14	Slacon Industrias
PT0331	Supply of Tower Hardware 450 kV HVdc	28-May-14	Slacan Industries Performed Line Products Limited
CH0034	Supply & Install Powerhouse Elevator	29-Apr-14	Thyssen Krupp Elevator
PT0353	Supply of Optical ground Wire (OPGW) 350 kV	16-Apr-14	Suzhou Furukawa Power Optic Cable
	Supply of Optical Bloatia Wile (Ol GW) 550 KV	10 / hi 14	Jazinou i di dikawa i owei Optic Cable

Package #	Package Title	Award Date	Successful Bidder(s)
PT0334	Supply of Steel Wires – 350 kV HVdc	14-Apr-14	Wire Rope Industries Ltd.
SD0564	Provision of Camp Services (CF)	8-Apr-14	Labrador Catering Ltd. Partnership
SH0041	Provision of Ground Transportation Services	14-Mar-14	PENCAL Supplies Ltd & SBH
3110041	(HVGB-MF)	IT WILL IT	Enterprises Inc., A Joint Venture
LC-SB-011	Subsea Rock Protection Design, Supply and	7-Mar-14	Tideway (Luxembourg) S.A.
20 35 311	Installation	, 14101 II	Tractialy (Eastern Sourg) 5.7 ti
SM0709	Provision of Air Transportation	10-Feb-14	Innu Mikun Ltd. Partnership and PAL
007	The final of the f	10 . 00 1 .	Airlines
SM0705	Provision of Laboratory Services	10-Feb-14	AMEC Americas Limited
PH0014	Supply of Generator Step-Up Transformers	10-Feb-14	ABB Inc.
PD0537	Supply of Power Transformers, AC Substations	10-Feb-14	ABB Inc.
	at CF, MF and SP		1.22
SH0040	Provision of Garbage Removal and Disposal	23-Jan-14	Pardy's Waste Management &
	Services (MF)		Industrial Services
PH0016	Supply of Generator Circuit Breakers	17-Jan-14	ABB Inc.
PT0328	Supply of Transmission Line Conductors-350 kV	2-Jan-14	General Cable Company Ltd. and
	HVdc		Midal Cables Ltd.
PT0356	Stockbridge Dampers	20-Dec-13	Performed Line Products (Canada) Ltd.
PT0308	Supply of Steel Tower Foundations 350kV HVdc	20-Dec-13	Locweld Inc.
CH0032	Supply & Install Powerhouse & Spillway Hydro-	19-Dec-13	Andritz Hydro Canada Inc.
	Mechanical Equipment		,
PT0352	Supply of Anchor Materials 350 kV HVdc	18-Dec-13	Williams Form Hardware & Rockbolt
			(Canada) Ltd.
CT0319	AC Transmission Line Construction	17-Dec-13	Valard Construction LP
SH0018	Camp Catering, Housekeeping and Janitorial	16-Dec-13	Labrador Catering Limited Partnership
	Services		
LC-SB-034	Conduit End Exit Verification	13-Dec-13	DOF Subsea Canada
CH0033	Supply & Install Powerhouse Cranes	9-Dec-13	Groupe LAR Inc.
LC-SB-027	Supply of Casing	4-Dec-13	East Coast Tubulars Ltd.
CH0007	Construction of Intake and Powerhouse	29-Nov-13	Astaldi S.p.A
	Spillway and Transition Dams		
SH0022	Provision of Fuel Supply & Dispensing Services	18-Nov-13	Woodward's Oil Limited and Utapan
			Fuels Limited, a Joint Venture
CT0341	Clearing of Right Of Way for 315kV HVac	15-Nov-13	Great Western Forestry Inc.
	Transmission Line (MF to CF)		
LC-SB-026	Drill Bits and Tooling	14-Nov-13	HALLIBURTON
			Dreco Energy
			Baker Hughes Canada
			Smith Bits A Schlumberger Company
LC-SB-036	Conduit End Connection	12-Nov-13	Kongsberg Oil and Gas Technologies
CD0503-002	Construction of Earthworks at Soldier's Pond	18-Oct-13	H.J. O'Connell
PT0330	Supply of Steel Towers-350 kV HVdc	10-Oct-13	Jyoti Amercias LLC
SM0700	Provision of Freight Forwarding Services	3-Oct-13	Panalpina Inc., Panprojects Division
LC-SB-023	Drilling Fluids Services for HDD Program	6-Sep-13	M-I SWACO, a Division of
			Schlumberger Canada Limited
LC-SB-024	Directional Services for HDD Program	6-Sep-13	Baker Hughes Canada Company
			1.1 12
CD0503-001	Construction of Earthworks at Churchill Falls	5-Sep-13	Johnson's Construction Limited
			100-5
LC-SB-021	Civil Works-SOBI	22-Aug-13	C&T Enterprises Limited

Package #	Package Title	Award Date	Successful Bidder(s)
PH0058	Supply of 600 V Switchgear	25-Jul-13	ABB Inc.
PT0329	Supply of Insulators 350 kV HVdc	22-Jul-13	Seves Canada Inc.
CH0003	Curantus and Install Advainintmetive Duildings	19-Jul-13	Opron Construction Inc.
CH0003	Supply and Install Administrative Buildings	19-Jul-13	Opron Construction Inc.
LC-SB-022	Provision of Drilling Rig and Surface Spread for	19-Jul-13	Direct Horizontal Drilling Inc.
	HDD Program		
CT0354	HVAC Marshalling Yard Civil and Electrical	17-Jul-13	Johnson's Construction Limited
CT0244	Works	40 1 1 40	
ST0311	Provision of Survey Services (315) kV HVac	10-Jul-13	MMM Group Limited & N.E. Parrott Surveys Limited, a joint venture
SM0704	Provision of Surveying Services	14-Jun-13	Edwards & Associates Ltd.
0.1.107 0 1	The state of the s	2.7425	24.04.45 & 7.5555.4155 214.
SD0565	Provision of Geotech Investigation Shoreline	6-Jun-13	Stantec Consulting Ltd.
	Pond Electrodes		
PT0335	Supply of Anchor Materials – 315 kV HVac	22-Oct-13	Williams Form Hardware & Rockbolt
CH0024	Construction of Reservoir Clearing North Bank	25-Apr-13	(Canada) Ltd. Johnson Construction Ltd.
C110024	Construction of Reservoir Clearing North Bank	25 Apr 15	Johnson Construction Eta.
PT0303	Supply of Hardware 315 kV HVac	17-Apr-13	Mosdorfer GmbH (Austria)
PT0300	Supply of Transmission Line Conductors 315 kV	5-Apr-13	Midal Cables Ltd.
SM0713	HVac Provision of Geotechnical Investigation	27-Mar-13	AMEC Environment & Infrastructure
31010713	Services	27-War-13	AMEC Environment & intrastructure
SM0701	Provision of 3rd Party Quality Surveillance and	18-Mar-13	SGS Canada Inc.
	Inspection Services		Killick Group Ltd.
			GL Noble Denton Canada Ltd
			Moody International Ltd.
PT0307	Supply of Tower Foundations-315 kV HVac	5-Mar-13	Fabrimet
PT0302	Tower Steels for AC Lines	6-Feb-13	ŞA-RA Energy, Construction, Trade and
	Towner Steeds for the small	0.00 10	Industry Inc.
PT0326	Supply of Steel Wires-315 kV HVac	28-Jan-13	Graybar Canada
PT0304	Optical Ground Wire Conductors (OPGW) 315	25-Jan-13	PT0304-001 Mosdorfer North Caroline
	kV HVac		Inc. PT0304002 Suzhou Furukawa Power
			Optic Canada Inc.
PT0301	Supply of Insulators 315 kV HVac	18-Jan-13	Seves Canada Inc.
	,		
SH0054	Temporary Site Services	10-Jan-13	Labrador Catering Limited Partnership
CHOOSO	Turbines and Generators	2 lan 12	Andrita Hudro Conodo Inc
CH0030	Turbines and Generators	2-Jan-13	Andritz Hydro Canada Inc.
LC-SB-003	Submarine Cable Design, Supply and Install	29-Nov-12	Nexans Norway AS
	3 7		, -
LC-SB-018	Provision of Third Party Equipment,	27-Nov-12	Lloyd's Register North America
	Manufacturing, Supply, and Installation		Spectrol Group
CH0006	Surveillance Service Bulk Excavation Works	6-Nov-12	IKC-ONE Earthworks Constructors, a
C110000	Daik Excavation WOLKS	0-1NOA-17	Partnership
SH0019	Provision of Security Services	1-Nov-12	Speuata Security Inc.

Package #	Package Title	Award Date	Successful Bidder(s)
SH0020	Provision of Medical Services	1-Nov-12	Innu - Med Inc.
CH0002	Supply and Install Accommodations Complex Buildings	22-Oct-12	Liannu Limited Partnership
PH0038	Supply of Emergency Diesel Generator	12-Oct-12	Toromont CAT, a division of Toromont industries Ltd
LC-SB-017	Ocean Characteristic Monitoring and MetOcean Report	13-Sep-12	AMEC Environment & Infrastructure A Division of AMEC Americas
PH0036	Supply of Auxiliary Transformers	13-Aug-12	MVA Power
CD0512	Construction Contract for Construction Power	20-Jun-12	G.J. Cahill & Company Ltd.
CH0004	Southside Access Road	25-Oct-12	Liannu
CH0048	Site Clearing Access Road & Ancillary Areas	20-Apr-12	Nukum Forestry Ltd
PD0522	Pre-Fabricated Control Room Building	11-Apr-12	Automatisation Grimard Inc.
PD0531	MV Instrument Transformer (Combined CT&PT Unit)	19-Mar-12	ABB Inc.
PD0515	138 kV and 25 kV Disconnect Switches (with and without ground switches)	13-Feb-12	Alstom Grid
PD0514	135 kV and 25 kV Circuit Breakers (dead tank type)	6-Feb-12	Alstom Grid Via Power Systems Consulting
PD0518	138 kV Capacitor Voltage Transformers (CVTs)	6-Feb-12	Alstom Grid Via Power Systems Consulting
PD0519	25 kV Vacuum Interrupters	6-Feb-12	Siemens Canada Limited
PD0520	25 kV 6×4 MVAR Capacitor Banks	6-Feb-12	ABB
PD0529	25 kV Reclosers	6-Feb-12	Siemens Canada Limited
PD0530	138 kV and 25 kV Class Surge Arresters	6-Feb-12	Graybar Canada
PD0523	Substation Service Transformers	19-Jan-12	Carte International Inc
LCP 00728	Web-Based Employment and Expenditure Tracking and Reporting Software	22-Aug-11	SCI Resource Software Inc.
LC-SB-002	Iceberg Tracking Program	19-Aug-11	Provincial Aerospace LTD. (PAL)
LC-SB-007	2011 HDD Pilot Bore Field Investigation Program	19-Aug-11	Mears Canada Corp.

NON-CONFIDENTIAL

1	Requ	est IR-12:
2		
3	Exhi	bit N-1, p. 5, lines 15-16
4	(a)	Please describe the contemplated timeline for approval of NSPML's Final Capital
5		Cost Assessment in 2020, from the projected time of the application to the Board
6		approval.
7		
8	(b)	Please indicate what other known issues NSPML intends to bring forward in the final
9		cost application.
10		
11	Respo	onse IR-12:
12		
13	(a)	As directed by the NSUARB in the Decision for the 2017 Interim Cost Assessment
14		Application (M07718), NSPML will file for approval of the Final Capital Cost Assessment
15		once the Board can have confidence that ratepayers will get NS Block, Supplemental
16		Energy, and Nalcor Market-priced Energy. NSPML anticipates that it will make its filing
17		for approval of final ML Project costs by Q2 of 2020. NSPML is hopeful that a decision
18		could be rendered before the end of 2020 so as to avoid the need for a further interim
19		assessment application in relation to the 2021 operating year.
20		
21	(b)	At the current time, NSPML's intention is to bring forward a request for UARB approval
22		of all Maritime Link Project capital costs, including Allowance for Funds Used During
23		Construction (AFUDC), as well as capitalized deferred financing costs. NSPML expects
24		that depreciation of the capital assets will also be addressed as part of this application.
25		

NON-CONFIDENTIAL

1	Reque	est IR-13:
2		
3	To da	te NSPML has confirmed it has booked unregulated costs related to compensation of
4	\$11,03	$34,000$ and donations of $$1,425,000^{1}$.
5		
6	(a)	Such costs, if incurred within NS Power, would have been written off to unregulated
7		results. Please explain why this has not happened.
8		
9	(b)	Please indicate whether such balances are being reimbursed by Emera with interest
10		and could be used to reduce the 2020 assessment request.
11		
12	(c)	How otherwise does NSPML propose to resolve this issue?
13		
14	(d)	If the known unregulated costs plus interest are removed from the capital project,
15		please indicate what changes would be required to NSPML's current interim
16		assessment request and where the various covenants would be through 2020.
17		
18	Respo	nse IR-13:
19		
20	(a)	Such costs remain subject to review and assessment during NSPML's final cost
21		application. NSPML has consistently included 100 percent of these costs as part of the
22		original application to the UARB, when updating the capital cost estimate at Decision Gate
23		3 and in quarterly update filings with the UARB, in Section 3.0 of NSPML's reports, since
24		December 2013. Additionally, these costs were addressed in M06592 (NSUARB IR-8), in

Date Filed: August 1, 2019 NSPML (NSUARB) IR-13 Page 1 of 2

¹ NSPML FS, M09134, IR-6

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1		M07392 (NSUARB IR-14), M08004 (NSUARB IR-11), M08603 (NSUARB IR-8), and in
2		M09134 (NSUARB IR-6); please refer to Attachments 1-5. NSPML will seek to have these
3		costs reviewed, along with all capital costs, during the final cost proceeding.
4		
5	(b)	These capitalized costs have been financed with debt and equity in the same manner as all
6		capitalized project costs.
7	(c-d)	NSPML expects that these matters will be addressed during the final capital cost
8		proceeding.
9		
10		
11		

Maritime Link Project (NSUARB ML-2013-01) NSPML Responses to Board Information Requests

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1	Request IR-8:
2	
3	Over the years, general limitations related to permissible regulatory expenditures have
4	been placed on NSPI for Regulatory purposes:
5	a) Please clarify whether NSPML has considered restrictions for Regulatory purpose
6	related to employee compensation and benefits, such as bonuses, SERP benefits, and
7	executive compensation, as relevant to its financial results.
8	b) If so, please identify what impact this has had in the 2013 and 2014 financial result
9	and where the unregulated accounts are reported?
10	c) If not, please identify what impact this would have had on the 2013 and 201
11	financial results.
12	
13	Response IR-8:
14	
15	(a) NSPML has considered the regulatory limitations placed upon NS Power, as well as the
16	limitations contained in section 64B(8) of the Public Utilities Act, which are applicable t
17	NS Power. The development and construction of the Maritime Link is a single-purpos
18	major capital project for which all costs are transparently recorded and reported. NSPM
19	included 100 percent of the costs it forecasted to incur to develop and construct th
20	Maritime Link when forecasting capital costs as part of the application to the UARB a
21	well as when updating the capital cost estimate at Decision Gate 3. This has bee
22	communicated in quarterly filings with the UARB, in Section 3.0 of NSPML's reports, a
23	follows:
24	
25	Project costs include ML Project team fully allocated costs for executive,
26	management, employees and contractors, and NSP seconded employees at
27	Affiliate mark-up rates according to the Code of Conduct for Affiliate
28	Transactions.
29	

Maritime Link Project (NSUARB ML-2013-01) NSPML Responses to Board Information Requests

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1	(b)	As noted in (a) no amounts have been segregated as unregulated in NSPML's financial
2		statements.
3		
4	(c)	If the regulatory and statutory limitations described in question (a) that are placed upon
5		NS Power were placed upon NSPML, the impact in 2013 and 2014 would approximate
6		\$1.9M in 2013 and \$0.8M in 2014.

NSPML 2015 Financial Statements (NSUARB M07392) NSPML Responses to NSUARB Information Requests

NON-CONFIDENTIAL

Request IR-14:

1 2

- 3 It was noted in the 2014 financial statement filing, in response to IR-8, that no amounts had
- 4 been segregated as unregulated as would have been the case if the costs had been recorded
- 5 by NSPI. Please provide the totals, by type (e.g. donations, executive compensation),
- 6 recorded by year, that would have been segregated under the regulatory limitations placed
- 7 **on NSPI.**

8

Response IR-14:

Date Filed: May 27, 2016

10

A summary of the segregation of costs requested is provided below:

11 12

	2011	2012	2013	2014	2015
* Compensation Donations	\$491,000	\$820,000	\$995,000	\$1,850,000	\$2,121,000
	2,000	81,000	213,000	123,000	217,000

^{*} Includes all employees including executives

NSPML 2016 Financial Statements (NSUARB M08004) NSPML Responses to NSUARB Information Requests

NON-CONFIDENTIAL

Request IR-11:

2

1

- 3 Please provide the totals, by type (e.g., donations, executive compensation, bonus
- 4 compensation), recorded by year, that would have been segregated as unregulated under
- 5 the regulatory limitations placed on NSPI.

6 7

Response IR-11:

8

	2011	2012	2013	2014	2015	2016
*Compensation	\$491,000	\$820,000	\$995,000	\$1,850,000	\$2,121,000	\$2,210,000
Donations	\$2,000	\$81,000	\$213,000	\$123,000	\$217,000	\$199,000

9

* Includes all employees including executives

NSPML 2017 Financial Statements (NSUARB M08603) NSPML Responses to NSUARB Information Requests

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Request IR-8:

2

1

- 3 Please provide the totals, by type (e.g., donations, executive compensation, bonus
- 4 compensation), recorded by year, that would have been segregated as unregulated under
- 5 the regulatory limitations placed on NSPI.

6 7

Response IR-8:

8

		2011		2012		2013		2014		2015	2016	2017
*Compensation	\$	491,000	\$	820,000	\$	995,000	\$	1,850,000	\$	2,121,000	\$ 2,210,000	\$ 1,912,000
Donations	\$	2,000	\$	81,000	\$	213,000	\$	123,000	\$	217,000	\$ 199,000	\$ 478,000
	* Includes all employees including executives											

NSPML 2018 Financial Statements (NSUARB M09134) NSPML Responses to NSUARB Information Requests

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Request IR-6:

2

1

- 3 Please provide the totals, by type (e.g., donations, executive compensation, bonus
- 4 compensation), recorded by year, that would have been segregated as unregulated under
- 5 the regulatory limitations placed on NS Power.

6

- 7 Response IR-6:
- 8 Costs capitalized as project costs by NSPML that would have been segregated as unregulated
- 9 under regulatory limitations placed on NS Power are noted below:

10 11 12

		2011		2012		2013		2014		2015	2016	2017	2018
*Compensation	\$	491,000	\$	820,000	\$	995,000	\$	1,850,000	\$	2,121,000	\$ 2,210,000	\$ 1,912,000	\$ 635,000
Donations	\$	2,000	\$	81,000	\$	213,000	\$	123,000	\$	217,000	\$ 199,000	\$ 478,000	112,000
	* Includes all employees including executives												

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1	Requ	est IR-14:
2		
3	In th	e NSPML Financial Statement review, M09134, IR-7, NSPML indicates actual return
4	was l	ower in all years but 2014 because of the approved AFUDC policy:
5	(a)	Please explain how the approved AFUDC policy permitted recording of return in
6		excess of 9%.
7		
8	(b)	Please explain whether revisions are required to that policy now that the project is no
9		longer sourcing new debt.
10		
11	(c)	As a single purpose entity with a single asset, with confirmation on page 11 of this
12		application that customers will pay no more and no less than the actual approved
13		costs, will return be recorded at 9% (or a revised rate in the event a revised rate is
14		approved) on 30% equity for actual purposes on a go forward basis? If not, please
15		explain.
16		
17	(d)	In the event NSPML requires additional investment in a year where rates were not
18		set to recover such costs, how will that be funded?
19		
20	(e)	In the event NSPML does not require the funds approved, how will that be refunded?
21		
22		
23	Respo	onse IR-14:
24		
25	(a)	Prior to when the Federal Loan Guarantee (FLG) debt was secured in April 2014, Emera
26		Inc. was required by Article 4.14 of the FLG Term Sheet to fund 100 percent of NSPML's
27		costs. It did this through direct equity injections of common stock and also by funding
28		NSPML's accounts payable. In April 2014, NSPML issued common stock to true-up all

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1		outstanding liabilities. Where AFUDC was calculated monthly and the net earnings
2		percentage calculation is based on average quarterly shareholder equity, the rate of return
3		calculated to be higher than 9 percent. In all other years reported, the rate of return was less
4		than 9 percent.
5		
6	(b)	No policy revisions are being requested at this time.
7		
8	(c)	NSPML has forecasted its net earnings for 2020 based on a forecast of the average of the
9		5 quarter balances in shareholder equity. During the operating period, NSPML expects to
10		follow the same approach in forecasting net earnings as NS Power.
11 12	(d-e)	NSPML anticipates that such a circumstance would be handled in a similar manner to NS
13		Power subject to adjustment to the extent required in order for NSPML to remain in
14		compliance with the ML Credit Agreement.
15 16		
17		
18		
19 20 21 22 23 24 25		

PARTIALLY CONFIDENTIAL

1	Requ	est IR-15:
2		
3	With	respect to the CBC news feature, dated April 19, 2019, titled "Could a redfish trawling
4	bonar	nza zap the Maritime Link":
5	(a)	Is NSPML intending or considering trenching (or otherwise protecting) the Maritime
6		Link transmission line as outlined in this story?
7		
8	(b)	If so, what are the additional estimated costs? Would the project remain on budget?
9		
10	(c)	What extent of trenching was identified as necessary in the initial application and was
11		this deep-sea trenching considered in the scoping of the initial project? If not, why
12		not?
13		
14	(d)	When were the redfish risks first identified?
15		
16	Respo	nse IR-15:
17		
18	(a)	Yes, NSPML is planning to trench the approximately 59km surface-laid section of each
19		submarine cable to protect against the risk of damage from bottom trawling activities
20		associated with the redfish fishery.
21		
22	(b)	NSPML has contracted with Nexans AS, the original manufacturer and installer of the
23		cables, to conduct further trenching work in 2019 at a cost of approximately \$
24		NSPML continues to forecast that total capital costs, including those relating to this
25		trenching work in 2019, that will be submitted to the UARB for final costing will not
26		exceed \$1.577 billion.
27		

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1		
2	(c)	The cable burial profile had not been finalized at the time of the application for approval
3		of the Project; however, as outlined in the application record, the entire cable route,
4		including the deep water portion was assessed for all identified external risks. Please refer
5		to Attachment 1.
6		
7	(d)	The initial project risk work identified that historically, red fish were commercially
8		harvested in the Gulf of St. Lawrence (including the Cabot Strait) but this had not been the
9		case since the early 1990's. As of 2010, the two subspecies of redfish present in the North
10		Atlantic were still considered by COSEWIC (Committee On the Status of Endangered
11		Wildlife in Canada) to be Endangered (S. mentella) or Threatened (S. fasciatus) and were
12		therefore not being extensively fished. In addition, the limited fishing of these subspecies
13		that did take place occurred between 200 metres and 400 metres water depth.
14		
15		

Request IR-22:

With respect to page 62, Line 11 of the Application which states that "The design-build contractor will be responsible for designing and implementing cable protection measures to achieve a targeted return period of up to 1,000 years between failures of the cable systems". Please supply details of the calculations that have been, or are to be, performed to substantiate the predicted periods between failures the HVDC submarine cable protection measures?

Response IR-22:

Cable protection study and calculation is being performed by C-Core and Intecsea. An Ice risk analysis was performed by C-Core. Sea ice data from the Canadian Ice Service archives was collected. Upward looking sonar data collected on Makkovik Bank by the Bedford Institute of Oceanography were used to define the pack ice keel distribution and a maximum cut off of 25 m was selected for the analysis. Iceberg frequency in the study area has been evaluated using the PERD (Program of Energy Research and Development) Iceberg Sighting Database which compiles data from a number of sources including the International Ice Patrol, Canadian Ice Service, ship sightings and offshore industry. It was concluded that there is no iceberg risk on the Nova Scotia side of the Cabot Strait, and that the maximum keel draft cut off is 100 m for iceberg scour risk near Newfoundland landfalls. Although viewed as conservative, the ice risk and cable burial depth assessment was modeled using a gouge frequency model developed for use in the Canadian Beaufort Sea. The allowable annual probability of ice contact per metre of cable was calculated using the target reliability of 1/1000; the recommended maximum design gouge depth is 1.7 m due to pack ice from landfall up to 25 m water depth, and 0.4 m for icebergs from 25-100 m water depth on Newfoundland side.

A fishing activity study for the Cabot Straight was performed by Canning & Pitt in order to define the hot fishing areas and gear used based on the species that are harvested. An analysis on this report was performed by Intecsea, and it was recommended based on industry standards that

a 1m cover is required on top of the cable to protect against otter trawls, and 0.25 m to protect
 against fixed gear fishing.

A "Dragging Anchor Risk Analysis" was performed by C-Core based on vessel traffic analysis of the Cabot Strait, and reported anchor damage to communication cables in the straight. Based on the seabed soil conditions, a cover depth of 1.5 m up to a maximum of 75 m water depth is recommended to protect against dragging anchors.

Intecsea is currently updating the cable burial profile based on the results above. The driving factors for cable protection that will help achieve a return period of 1000 years are a combination of Pack ice sub-gouge zones, Iceberg sub-gouge zones, Dragging anchors zones, trawling zones, fixed gear fishing zones and mega ripples zones.

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1	Requ	est IR-16:
2		
3	Re: 7	The project cost approvals outlined in the application on page 8 of 21:
4		
5	(a)	Where is the project on cost as of June 30, 2019?
6		
7	(b)	What was the cost estimate at Decision Gate 3?
8		
9	(c)	Please confirm the balance owed by Nalcor to NSPML was \$22 million at Decision
10		Gate 3 in 2013.
11		
12	(d)	Please update the balance owed by Nalcor to NSPML for interest or any other reasons
13		(explain any other reasons).
14		
15	(e)	Could this receivable be applied to offset 2020 rates? If not, please explain.
16		
17	Resp	onse IR-16:
18		
19	(a)	Project capital costs incurred to the end of June 30, 2019 were \$1.53 billion and NSPML
20		continues to forecast that the total capital costs of the Project that will be submitted as part
21		of the final costing will not exceed \$1.577 billion.
22		
23	(b)	The cost estimate of Decision Gate 3 was \$1.577 billion.
24		
25	(c)	The Maritime Link - Joint Development Agreement ("ML-JDA") dated July 31, 2014,
26		Article 2.5 states Nalcor shall be liable to Emera for the amount (the "Adjustment
27		Amount") determined by subtracting \$1,555,400,000 (representing 20 percent of the
28		Estimated Overall Project Costs) from the Actual Capital Costs (which Actual Capital

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1		Costs for the purposes of this calculation only shall not exceed the DG3 Costs). The
2		Adjustment Amount, if any, shall be payable by Nalcor not later than 30 days after the
3		Actual Capital Costs are finally determined.
4		
5		Since NSPML's capital costs incurred to date are less than \$1.555 billion and final Actual
6		Capital Costs as defined in the ML-JDA have not yet been determined, there is no amount
7		receivable from Nalcor at the present time.
8		
9	(d)	See (c) above.
10		
11	(e)	If a receivable from Nalcor were to occur, NSPML will consider at that time how to apply
12		such compensation for the benefit of customers.
13		

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1	Reque	st IR-17:
2		
3	NSPM	L reported \$81 million in cash on hand as of December 31, 2018 (\$17.2 million
4	unrest	ricted and \$64.1 million restricted):
5		
6	(a)	Please confirm under IR-10 in Matter M09134, NSPML was reporting its restricted
7	. ,	cash balance had decreased to \$22.75 million by June 6, 2019.
8		
9	(b)	What are the current unrestricted and restricted cash on hand balances as of June
10		30, 2019?
11		
12	(c)	Please provide a full accounting of cash in and cash out since December 31, 2018,
13		including detail of what it related to that reconciles to the current cash on hand
14		balances.
15		
16	(d)	Please reconcile from the current cash on hand balances, to the projected opening
17		2020 balance, that will require the assessment as requested.
18		
19 20	Respoi	nse IR-17:
21		
22	(a - b)	No, that is not the case. For clarity, the Debt Services Reserve Account, (DSRA)
23		referenced in IR-10 to Matter M09134 pertaining to NSPML's 2018 Consolidated
24		Annual Audited Financial Statements, is one of the restricted bank accounts. The list of
25		restricted accounts and their corresponding balances are as follows:
26		
27		

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The accounts within NSP Maritime Link Inc.:

	Balance at Dec. 31, 2018	Balance at Jun. 30, 2019
	(\$)	(\$)
Unrestricted bank account:		
Borrower Disbursement	17,120,000	8,080,000
Account		
Restricted Bank Accounts:		
Borrower Project Funding	6,250,000	5,500,000
Account		
Borrower Debt Service Reserve	22,790,000	22,790,000
Account		
Borrower Insurance Reserve	780,000	0
Account		

The accounts within the ML Trust (for example; current balance of proceeds of the debt issuance):

	Balance at Dec. 31, 2018	Balance at Jun. 30, 2019
	(\$)	(\$)
ML Trust	34,300,000	34,280,000

3

4

5 6

1

2

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(c - d) The following reconciliations detail the cash flow from December 31, 2018 to June 30, 2019 and a forecast of cash transactions from July 1, 2019 to December 31, 2019 for the (restricted) ML Trust, the (restricted) Borrower Project Funding Account, and the (unrestricted) Borrower Disbursement Account. The timing of cash transfers and requirements post June 30, 2019 is subject to change based upon various matters including final capital costs and contract payment terms. The forecast below assumes that a Final Funding Request is made from the ML Financing Trust in this period.

9 10

1 2

3

4

5

6

7

8

Reconciliation of ML Trust

Opening Balance - January 1, 2019	34,300,000
Interest on account net of bank fee	380,000
Payment received from NSPML	22,350,000
Payment of coupon interest – June 1, 2019	(22,750,000)

Balance as at June 30, 2019	34,280,000
Forecasted Reconciliation from June 30 to December 31, 2019	
Drawdown to NSPML	(34,150,000)
Interest on account net of bank fee	340,000
Payment received from NSPML	22,280,000
Payment of coupon interest – December 1, 2019	(22,750,000)

1112

Reconciliation of NSPML Borrower Project Funding Account

Reconciliation from January to June 30, 2019

Forecasted Balance at December 31, 2019

Opening Balance - January 1, 2019	6,250,000
Cash revenue from NS Power	52,360,000
Interest payment - ML Trust - June 1st	(22,350,000)

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HST Input Tax Credit recovery	2,320,000
Transfer to Borrower Disbursement Account	(11,460,000
Other deposits	1,380,000
Payment of dividend	(23,000,000
Balance as at June 30, 2019	5,500,000
Forecasted Reconciliation from July 1 to December 31, 2019	
Cash revenue from NS Power	50,750,000
Interest payment – ML Trust - Dec. 1st	(22,280,000
Transfer to Borrower Disbursement Account	(50,000,000
Transfer from ML Trust	34,150,00
Other deposits	400,00
Dividend payment net of additional equity	,
formation.	/45 000 000
funding	(15,000,000
Forecasted Balance at December 31, 2019	3,520,000
	. , ,
Forecasted Balance at December 31, 2019	. , ,
Forecasted Balance at December 31, 2019 Reconciliation of NSPML Borrower Disbursement Account	. , ,
Forecasted Balance at December 31, 2019 Reconciliation of NSPML Borrower Disbursement Account Reconciliation from Jan. 31 to June 30, 2019	3,520,00 17,120,00
Forecasted Balance at December 31, 2019 Reconciliation of NSPML Borrower Disbursement Account Reconciliation from Jan. 31 to June 30, 2019 Opening Balance - January, 2019	3,520,00 17,120,00 11,460,00
Forecasted Balance at December 31, 2019 Reconciliation of NSPML Borrower Disbursement Account Reconciliation from Jan. 31 to June 30, 2019 Opening Balance - January, 2019 Transfers from Borrower Project Funding Account	3,520,00 17,120,00 11,460,00 (20,500,000
Reconciliation of NSPML Borrower Disbursement Account Reconciliation from Jan. 31 to June 30, 2019 Opening Balance - January, 2019 Transfers from Borrower Project Funding Account Payment of costs	3,520,00 17,120,00 11,460,00 (20,500,000
Reconciliation of NSPML Borrower Disbursement Account Reconciliation from Jan. 31 to June 30, 2019 Opening Balance - January, 2019 Transfers from Borrower Project Funding Account Payment of costs Balance as at June 30, 2019	3,520,00 17,120,00 11,460,00 (20,500,000 8,080,00
Reconciliation of NSPML Borrower Disbursement Account Reconciliation from Jan. 31 to June 30, 2019 Opening Balance - January, 2019 Transfers from Borrower Project Funding Account Payment of costs Balance as at June 30, 2019 Forecasted Reconciliation from July 1 to December 31, 2019	3,520,00

3

Date Filed: August 1, 2019