Muskrat Falls Project Oversight Committee

Quarterly Project Update

Period Ending December 31, 2017

February 12, 2018

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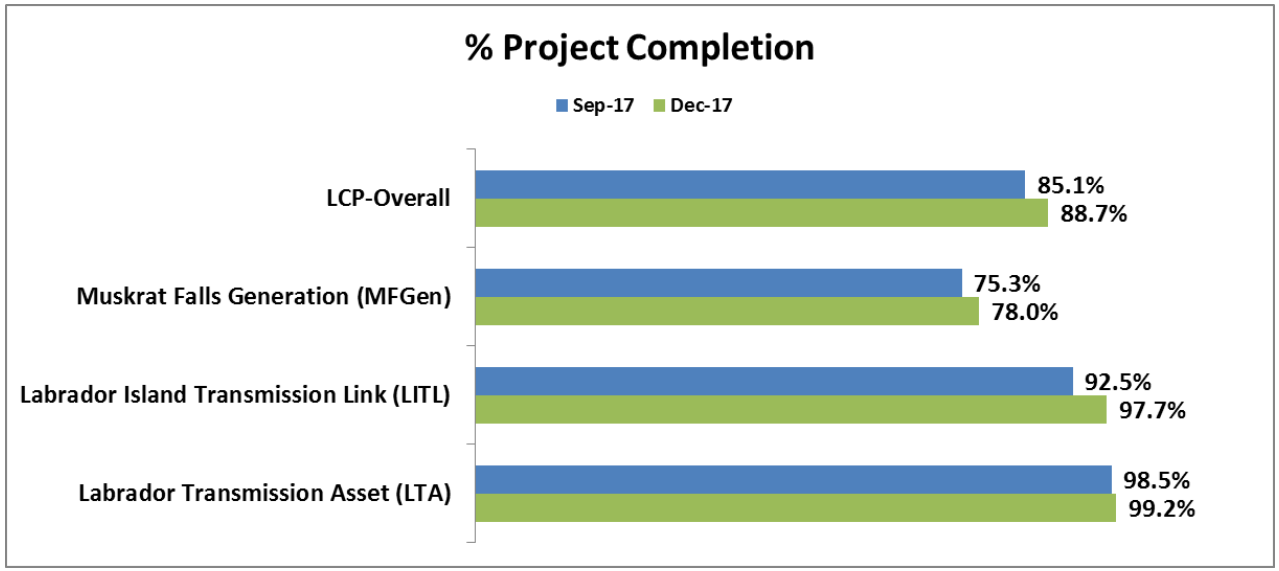
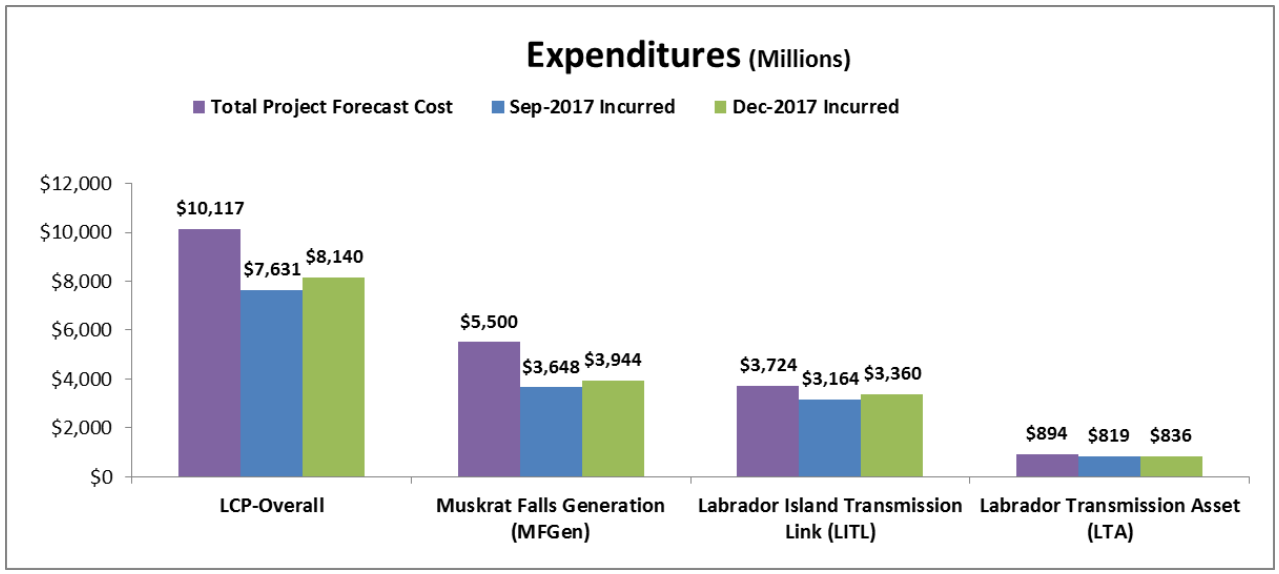
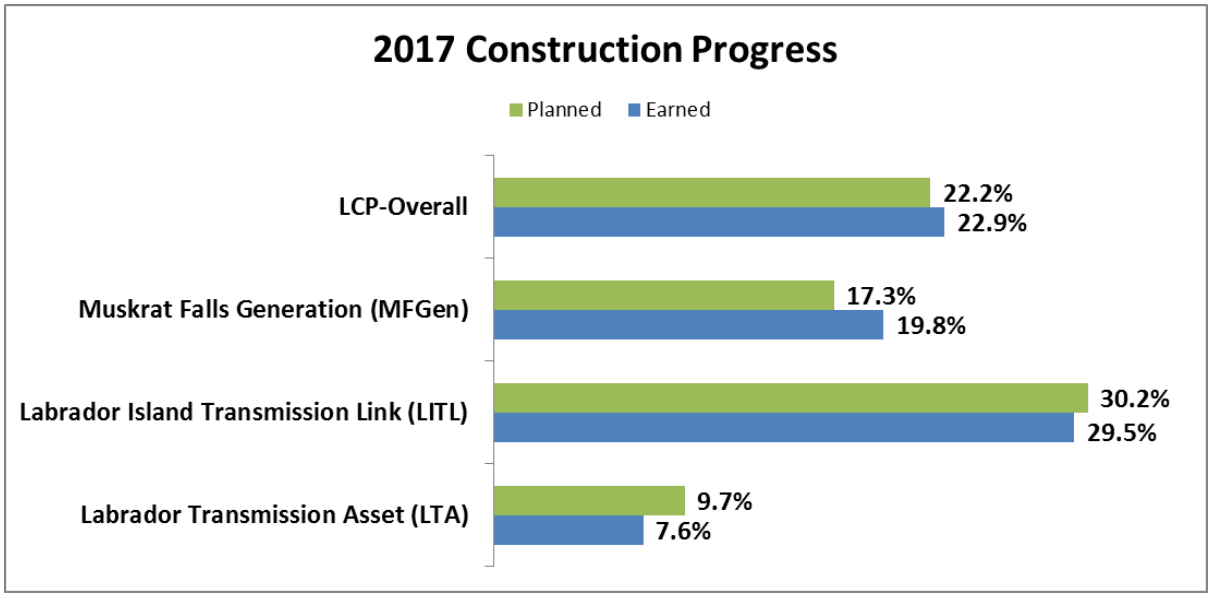
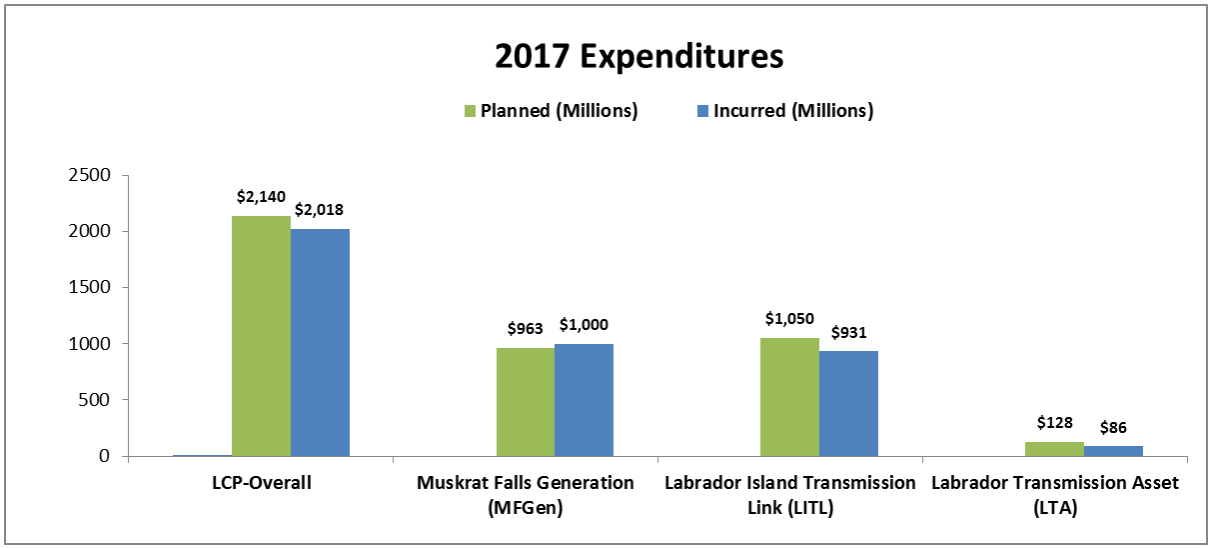
1. Total Project Summary as of December 31, 2017





2. 2017 Performance Summary – Total Project





2. 2017 Performance Summary – Power Development

Activity	Status
Site Infrastructure • Power supply, roads, construction camp	Complete[1]
Major Equipment Manufacturing • Spillway and Hydro-mechanical, Turbines and Generators	Complete[1]
North Spur Stabilization • Cutoff wall, pumping system, rock stabilization, drainage, monitoring equipment and vegetation stabilization	Complete[1]
Powerhouse and Spillway Spillway Gates Powerhouse	 85% complete 72% complete
Dams • Upstream Cofferdam, Downstream Cofferdam, Transition dam, South Dam	Complete[1] North Dam – 57% complete

- Other
  - Astaldi concrete placement ahead of plan for 2017;
  - Powerhouse fully enclosed supporting installation work;
  - All four draft tube units transferred to Andritz;
  - Hydro-mechanical and turbine and generator embedment installation work ongoing; and
  - North Dam at elevation 15.69 meters.

[1]Construction complete with commissioning and energization pending where applicable.

2. 2017 Performance Summary – Power Supply

Activity	Status
Major Equipment Manufacturing • HVDC Converters and Transition Compounds, Submarine Cable and AC Substations, Synchronous Condenser	Complete[1]
HVac and HVdc Overland Transmission • Towers, conductor • Grounding Stations • Transition Compounds	 Complete[1] Complete[1] 90% complete
Strait of Belle Isle Submarine Cable (SOBI) • Submarine Cable and Transition Compounds	Complete[1]
Churchill Falls Extension and New Switchyard	Complete[1]
Soldiers Pond • AC Switchyard • HVdc Converter Station • Synchronous Condensers	 Energized and turn over to operations complete Pole 1, 94% complete, Pole 2, 84% complete 86% complete
Muskrat Falls • AC Switchyard • DC converter • HVBG Supply	 96% complete 88% complete Established, tested and energized

[1]Construction complete with commissioning and energization pending where applicable.

3.0 Oversight Committee Reporting

3.1 Overview
3.2 Risks / Issues Being Followed by the Committee
3.3 EY Recommendations
3.4 Contingency Development and Management

3.1 Overview

- The Oversight 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.
- As the project proceeds toward construction completion and commissioning, the Committee will also be monitoring plans and preparation for integration and operations.
- Section 3 of this report contains information developed by the Committee and includes a discussion on project contingency development and management. It also includes a status update on EY recommendations stemming from the August 31, 2017 Report. Section 4 contains project cost and schedule information provided by Nalcor. The Annexes contain a more detailed accounting of the information provided in Section 2.
- The next Quarterly Report will cover the period January 2018 – March 2018.

3.1 Overview

- 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) LCP Project Site Visit and related meetings along with Natural Resources Canada (NRCan) during the week of November 27, 2017.
- Additional Committee meetings and information sharing has been developed to enhance independent assurance. These include:
  - NRCan and the IE; and
  - Newfoundland and Labrador Hydro (NLH).
- The Committee requested that Nalcor report on the EY August 31, 2017 Report recommendations. The report is available @ Click here. EY's recommendations are repeated on page 15 of this report and Nalcor's response is on pages 16 and 17.

3.1 Overview

- The IE released the GE Clearwater Site Visit Report on January 10, 2018 which is available @ Click here;
  - The IE visited the AC capacitor manufacturing facility in Clearwater, FL in light of failed capacitor testing at GE's facility in Finland. The IE commented that the Clearwater facility was of exceptional quality and capable of producing quality capacitors; and
- The IE released the November-December 2017 LCP Site Visit and Meetings Report on January 22, 2018 which is available @ Click here;
  - The IE discussed their visits to the Muskrat Falls site, Soldiers Pond and Dowden's Point. The IE commented that the work observed was in accordance with good industry practice. The IE also highlighted concerns with GE's progress on the HVdc protection and controls system.

3.2 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 this and other project information to assess project risk.
- Risks as outlined in the September 2017 Committee report remain, however, the risk profile for civil construction activities is reducing as these activities draw to a close.
- The Project is now transitioning to installation, integration and commissioning phases which inherently carry associated risks. These risks are noted in Nalcor reporting and are being tracked by the Committee.
- During 2018, the Committee will continue to focus on project risks as identified in the following slides and will be particularly focused on Pole 1 commissioning and associated risks.

3.2 Risk and Issues being Monitored by the Committee

A) Safety Performance

- Risk associated with simultaneous operations across multiple work sites, impact on project delivery particularly in the powerhouse, energized switchyards and other assets.

B) Contractor Management and Productivity

- Nalcor ability to manage contractors and contractor ability to meet schedule;
- Contractor management and performance in the powerhouse; and
- Potential commercial negotiations to settle claims.

C) Phased Commissioning

- Ability to meet aggressive Pole 1 completion schedule;
- Completion of Protection and Controls system; and
- Associated warranty considerations with early asset hand over during Pole 1 commissioning and completion.

3.2 Risk and Issues being Monitored by the Committee

D) Insurance Claims and Coverage

- Ongoing claims include: MFGen cofferdam repairs and other powerhouse protection mitigation, and Draft Tube 2 formwork failure.

E) Cofferdam Performance

- Performance of existing temporary cofferdam over multiple winters and potential impact on construction of the North Dam.

F) Reservoir Rim Stability

- Impact of changing water levels during interim impoundment on reservoir shoreline/slope stability.

G) 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.

3.2 Risk and Issues being Monitored by the Committee

H) Project Delivery Team Retention

- Project Team personnel departures due to other emerging work opportunities and potential impact on project completion.

I) Additional Risks

- Protest unrest;
- Reservoir vegetation and soil removal; and
- Other unforeseen directives from Government.

- EY commented in their August 31, 2017 report that it considers Nalcor's treatment of the "Additional Risks" to be reasonable as it relates to budgeted project costs.
- The Committee notes that insurance claims related to the LITL conductor modification and SOBI subsea cable section replacements, which were identified in the Committee's September 2017 and earlier Reports, have now been removed from the Committee's risk focus areas. Both insurance claims have been settled while others remain ongoing.

3.3 EY Recommendations

- EY made recommendations in the areas of Project Controls and Governance and Oversight in its August 31, 2017 Report. These include:

Project Controls
1. The Provincial Government and Nalcor should define a process for when and how the Project Team will retire unneeded contingency from cost forecasts;
2. The Project Team should perform probabilistic schedule modelling on a monthly basis to better inform decisions regarding schedule management;
3. The Project Team should formally document its monthly internal risk modeling analysis on a quarterly basis. In addition, a QRA process involving Westney Consulting[1] and other resources should be implemented on a biannual basis and follow any event that materially changes the risk profile for the Project.
Governance and Oversight
4. The Provincial Government and Nalcor should review and, where appropriate, standardize reporting from the Project to the OC and the Nalcor Board as well as synchronize reporting to Provincial Government stakeholders; and
5. The Provincial Government, through the OC, should implement an enhanced independent assurance function that will conduct regular project assurance activities related to cost, schedule and associated risks.

- The Committee requested that Nalcor report on the EY August 31, 2017 Report recommendations.

[1]Westney Consulting is the firm used by Nalcor to perform project quantitative risk assessments (QRAs).

3.3 EY Recommendations - Status

Project Controls	Nalcor Response
1. The Provincial Government and Nalcor should define a process for when and how the Project Team will retire unneeded contingency from cost forecasts;	1. The mechanism for formally retiring contingency is through the Authorizations for Expenditure (AFE) project budget process that is overseen by the Nalcor Board of Directors;
2. The Project Team should perform probabilistic schedule modelling on a monthly basis to better inform decisions regarding schedule management;	2. On a monthly basis the project team receives updates from contractors and inputs this information into the Integrated Progress Schedule (IPS). The team performs critical and sub-critical path analysis, schedule and progress analysis and float analysis. The result of this analysis forms the monthly current forecast schedule. This is documented in the IPS and accompany documents and included in the LCP monthly progress report and other project monthly deliverables;
3. The Project Team should formally document its monthly internal risk modeling analysis on a quarterly basis. In addition, a QRA process involving Westney and other resources should be implemented on a biannual basis and follow any event that materially changes the risk profile for the Project.	3. A cost risk and contingency analysis summary report is now being documented quarterly; <u>Power Development</u> A formal QRA will be completed with Westney Consulting in Q2 2018, or following any event that materially changes the risk profile; <u>Power Supply</u> Project cost models were updated in Q4 2017. Sufficient budget is currently approved in the AFE . No further formal QRA will be performed given that Transmission is greater than 95% complete unless there is an event that materially changes the risk profile.

3.3 EY Recommendations - Status

Governance and Oversight	Current Status
4. The Provincial Government and Nalcor should review and, where appropriate, standardize reporting from the Project to the OC and the Nalcor Board as well as synchronize reporting to Provincial Government stakeholders; and	4. Reporting between Nalcor and the Committee, the Board of Directors and the Provincial Government has been standardized and synchronized where practical;
5. The Provincial Government, through the OC, should implement an enhanced independent assurance function that will conduct regular project assurance activities related to cost, schedule and associated risks.	5. Additional Committee meeting and information sharing occurring with NRCan and the IE, and NLH.

3.4 Contingency Development and Management

In major capital projects, contingency refers to the amount of funds added to a project base cost estimate to cover estimated risk and uncertainty exposure which may materialize over the life of a project. The contingency allowance forms part of the project budget and is designed to cover items of cost which are not known exactly at the time of the estimate but which may occur based on a statistical analysis or range of probabilities. Generally, contingency allowance funds are reviewed and adjusted on a regular basis.

Project Contingency Budget Since Sanction

Contingency Budget ($000)	Dec 2012 Sanction	Dec 2013 Financial Close	Jun 2014	Sep 2015	Jun 2016	Jun 2017
Muskrat Falls Generating Facility	$226,849	$94,255	$120,847	$73,102	$235,755	$226,400
Labrador -Island Transmission Link	$86,628	$79,355	$72,280	$95,887	$128,825	$102,750
Labrador-Transmission Assets	$54,375	$14,030	$31,391	$17,846	$21,571	$10,012
Muskrat Falls Contingency Budget Total	**$367,852**	**$187,640**	**$224,518**	**$186,835**	**$386,151**	**$339,162**

3.4 Contingency Development and Management

- The Committee requested that Nalcor provide an explanation of contingency development and management process for the 2017 project budget.
- The current contingency budget was developed based on a P75 project cost estimate established during the Quantitative Cost and Schedule Risk Analysis (QRA) completed in Q2 2017 by Nalcor and Westney Consulting for all project assets. The original DG3 project budget and contingency was based on a P50 estimate.
- Contingency has been assigned to either a contract or general contingency based upon the potential issues and risks considered in the QRA. Each month drawdowns on contingency are documented in the project reporting documents.
- Risks and other potential contingency drawdowns anticipated in both the short- and long-term are reviewed each month with the senior project leadership team. As risks are resolved or retired, adjustments are made on a contingency assignment report.
- Any drawdowns on contingency must be requested and documented through a formal project change notice (PCN) and approved by the relevant management team, up to and including the Project Director.
- Where a contract's cumulative commitment value is greater than $100 Million, any change in contract term resulting in a contingency drawdown must be approved by the CEO.

4.0 Nalcor Reporting

4.1 Summary Quarter Ending December 2017
4.2 Project Expenditures
4.3 Contingency
4.4 Earned Progress

4.1 Summary – Quarter Ending December 2017

- December 2017 Summary
  - Overall construction progress is at 88.7%;
  - $8,140 Billion in incurred costs; and
  - $9,009 Billion in committed costs.
- June 2017 Project Capital Budget and final forecast cost remains unchanged;
- The project is tracking in compliance with the June 2017 budget and schedule;
- The available contingency budget is now approximately $340 Million as a result of identified project cost savings and recovery of costs from insurance claims over the December reporting period (approximately $46 Million forecast increase during the period);
- Power Supply cost models were updated following completion of the HVdc transmission line and confirm that there are sufficient funds in the existing 2017 budget to complete construction based on the projects current risk profile. Given that the Power Supply scope is greater than 95% complete, no further formal QRA's are planned unless there is an event that materially changes the risk profile; and
- A formal QRA will be performed for Power Development by Q2, 2018 or if there is any event that material changes the risk profile for the project.

4.1 Summary – Quarter Ending December 2017

Power Development

- The project remains on budget and on schedule with the June 2017 project capital budget;
- New forecast dates for MFGen have been established as a result of finalizing commercial settlements with the Turbines and Generators and Powerhouse Hydro-Mechanical Equipment contractors. Forecast dates remain within June 2017 project schedule planned dates and settlement costs were included in the June 2017 budget;
- Primary powerhouse concrete placement finished in December ahead of plan (131k m^3 placed vs 129k m^3 planned);
- Powerhouse steel placement finished in December and the powerhouse was fully enclosed;
  - Installation of mezzanine steel complete for all four generating units;
  - Catwalk installation complete;
  - All four draft tube units transferred to Andritz; and
  - Hydro-mechanical and turbine and generator installation work ongoing.

4.1 Summary – Quarter Ending December 2017

- North Dam progress is now at 57% on an adjusted two season construction schedule;
  - Concrete – 104k m^3 of 248k m^3 placed to date;
  - Height is now at elevation 15.69 meters;
  - Impoundment between Upstream Cofferdam and North Dam complete;
  - Decision has been taken by the Contractor that the downward face of the North Dam will be stepped face design; and
  - Project team and contractor focused on schedule planning for the 2018 construction season.
- The North Spur geotechnical and surface erosion monitoring program has been established;
- The reservoir was at elevation 23 meters as of January 25, 2017;
- The focus for Q1 2018 is on monitoring contractor interfacing and performance in the powerhouse and joint planning for 2018 North Dam construction season; and
- The forecast expenditure for Q1 2018 is estimated at $190 Million.

4.1 Summary – Quarter Ending December 2017

Power Supply

- The project remains on budget and on schedule with the June 2017 project capital budget;
- Forecast dates for LITL have been adjusted as result of finalizing a commercial settlement with the HVdc Specialties and Transition Compounds contractor and schedule analysis. Forecast dates remain within the June 2017 Project schedule planned dates and settlement costs were included in the June 2017 budget;
- First Power transfer for Pole 1 on the LITL remains on schedule for end of Q2 2018;
- The HVdc protection and control system remains on the critical path and poses the largest risk for Pole 1;
- Overland Transmission construction has been completed and is now awaiting final commissioning and energization;
- SOBI construction has been completed and is now awaiting final commissioning and energization;

4.1 Summary – Quarter Ending December 2017

- Switchyards
  - Churchill Falls Switch Yard Extension - Turnover to operations NLH complete and energized;
  - New Churchill Falls Switchyard – Forecast to be energized end of January 2018;
  - Soldiers Pond - AC Switchyard has been turned over to operations (NL Hydro), the Converter and Synchronous Condenser are nearing completion, and the Transition Compounds and Electrode Stations are nearing substantial completion;
  - Muskrat Falls AC Switchyard is 96% complete, the DC Converter is 88% complete and provisions for Happy Valley Goose Bay supply have been established, tested and energized;
- The focus for Q1 2018 is on continued completions and commissioning and integration of operations; and
- The forecast expenditure for Q1 2018 is estimated at $115 Million.

4.2 Project Expenditures

December 2017 ($000)	Project Budget	Cumulative $			Cumulative %		
		Plan	Incurred	Variance	Plan	Incurred	Variance
Description	*A*	*B*	*C*	*C-B*	*D=B/A*	*E=C/A*	*E-D*
NE-LCP Owners Team, Admin and EPCM Services	$1,115,235	$851,151	$836,794	($14,357)	76.3%	75.0%	-1.3%
Feasibility Engineering	$37,072	$37,073	$37,073	$0	100.0%	100.0%	0.0%
Environmental & Regulatory Compliance	$42,699	$37,460	$37,325	($135)	87.7%	87.4%	-0.3%
Aboriginal Affairs	$17,478	$12,273	$12,281	$8	70.2%	70.3%	0.0%
Procurement & Construction	$8,475,290	$7,274,782	$7,164,073	($110,709)	85.8%	84.5%	-1.3%
Commercial & Legal	$90,423	$49,776	$52,517	$2,741	55.0%	58.1%	3.0%
Contingency	$339,162	$0	$0	$0	0.0%	0.0%	0.0%
TOTAL	$10,117,328	$8,262,515	$8,140,063	($122,452)	81.7%	80.5%	-1.2%

December 2017 ($000)	Project Budget	Incurred Cumulative Costs December 2017	Project Final Forecast Cost December 2017	Variance PFC from Budget
Description	*A*	*B*	*C*	*D=A-C*
NE-LCP Owners Team, Admin and EPCM Services	$1,115,235	$836,794	$1,117,156	($1,921)
Feasibility Engineering	$37,072	$37,073	$37,073	($1)
Environmental & Regulatory Compliance	$42,699	$37,325	$43,408	($709)
Aboriginal Affairs	$17,478	$12,281	$17,679	($201)
Procurement & Construction	$8,475,290	$7,164,073	$8,464,465	$10,825
Commercial & Legal	$90,423	$52,517	$97,837	($7,414)
Contingency	$339,162	$0	$339,710	($548)
TOTAL	$10,117,328	$8,140,063	$10,117,328	$0

Columns in tables may not total due to rounding

4.3 Contingency

December 2017 ($000)	Project Budget at June 2017	Project Forecast Cost November 2017	Project Forecast Cost December 2017	Change from Previous Month	Variance PFC from Budget
Sub-Project:	*A*	*B*	*C*	*C - B*	*C - A*
Muskrat Falls Generating Facility	$226,400	$206,180	$203,069	($3,111)	($23,331)
Labrador-Island Transmission Link	$102,750	$80,530	$130,462	$49,932	$27,712
Labrador Transmission Assets	$10,012	$7,155	$6,179	($976)	($3,833)
Total Project	$339,162	$293,865	$339,710	$45,845	$548

Columns in tables may not total due to rounding

4.4 Earned Progress

Cumulative to end of December 2017	Weight Factor %	December 2017 Cumulative %			November 2017 Variance
		Planned	Earned	Variance	
Sub-Project	A	B	C	D = C - B	E
Muskrat Falls Generation (MFGen)	46.3%	79.1%	78.0%	-1.1%	-0.9%
Labrador Island Transmission Link (LITL)	43.9%	98.4%	97.7%	-0.7%	-0.2%
Labrador Transmission Asset (LTA)	9.8%	100.0%	99.2%	-0.8%	-1.1%
Muskrat Falls Project - Overall	100.0%	89.6%	88.7%	-0.9%	-0.6%

December 2017 Period	Weight Factor %	Period %		
		Planned	Earned	Variance
Sub-Project	A	B	C	D = C - B
Muskrat Falls Generation (MFGen)	46.3%	1.1%	1.1%	0.0%
Labrador Island Transmission Link (LITL)	43.9%	1.5%	1.0%	-0.5%
Labrador Transmission Asset (LTA)	9.8%	0.0%	0.1%	0.1%
Muskrat Falls Project - Overall	100.0%	1.2%	0.9%	-0.3%

Columns in tables may not total due to rounding

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
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)	**June 2017**
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	$102,750
Labrador-Island Transmission Link Total	$3,723,716
Labrador-Transmission Assets (in $ thousands)	**June 2017**
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	$10,012
Labrador Transmission Assets Total	$893,556
Muskrat Falls Capital Cost Budget Total	**$10,117,328**

Contingency Budget (in $ thousands)	Project Budget at June 2017
Sub-Project:	
Muskrat Falls Generating Facility	$226,400
Labrador-Island Transmission Link	$102,750
Labrador Transmission Assets	$10,012
Total Project	$339,162

II. Project Milestone Schedule

Muskrat Falls Generating Facility	June 2017 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 Transmission Link	June 2017 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

Expenditures

I. Muskrat Falls Generation
II. Labrador Island Transmission Link
III. Labrador Transmission Assets

Columns in tables may not total due to rounding

I. Muskrat Falls Generation

December 2017 ($000)	Project Budget	Cumulative $			Cumulative %		
		Planned	Incurred	Variance	Planned	Incurred	Variance
Description	*A*	*B*	*C*	*C-B*	*D=B/A*	*E=C/A*	*E-D*
NE-LCP Owners Team, Admin and EPCM Services	$655,850	$443,381	$436,548	($6,833)	67.6%	66.6%	-1.0%
Feasibility Engineering	$17,543	$17,543	$17,543	$0	100.0%	100.0%	0.0%
Environmental & Regulatory Compliance	$27,125	$24,331	$25,103	$772	89.7%	92.5%	2.8%
Aboriginal Affairs	$16,395	$11,523	$11,529	$6	70.3%	70.3%	0.0%
Procurement & Construction	$4,501,984	$3,383,584	$3,423,164	$39,580	75.2%	76.0%	0.9%
Commercial & Legal	$54,760	$26,381	$30,216	$3,835	48.2%	55.2%	7.0%
Contingency	$226,400	$0	$0	$0	0.0%	0.0%	0.0%
TOTAL	$5,500,056	$3,906,743	$3,944,101	$37,358	71.0%	71.7%	0.7%

December 2017 ($000)	Project Budget at June 2017	Incurred Cumulative Costs December 2017	Project Final Forecast Cost December 2017	Variance PFC from Budget
Description	*A*	*B*	*C*	*D=A-C*
NE-LCP Owners Team, Admin and EPCM Services	$655,850	$436,548	$657,580	($1,730)
Feasibility Engineering	$17,543	$17,543	$17,543	$0
Environmental & Regulatory Compliance	$27,125	$25,103	$27,865	($740)
Aboriginal Affairs	$16,395	$11,529	$16,395	$0
Procurement & Construction	$4,501,984	$3,423,164	$4,516,812	($14,828)
Commercial & Legal	$54,760	$30,216	$60,792	($6,032)
Contingency	$226,400	$0	$203,069	$23,331
TOTAL	$5,500,056	$3,944,101	$5,500,056	$0

II. Labrador Island Transmission Link

December 2017 ($000)	Project Budget	Cumulative $			Cumulative %		
		Plan	Incurred	Variance	Plan	Incurred	Variance
Description	*A*	*B*	*C*	*C-B*	*D=B/A*	*E=C/A*	*E-D*
NE-LCP Owners Team, Admin and EPCM Services	$322,101	$274,828	$274,954	$126	85.3%	85.4%	0.0%
Feasibility Engineering	$19,167	$19,167	$19,167	$0	100.0%	100.0%	0.0%
Environmental & Regulatory Compliance	$14,726	$12,312	$11,410	($902)	83.6%	77.5%	-6.1%
Aboriginal Affairs	$1,003	$710	$612	($98)	70.8%	61.0%	-9.8%
Procurement & Construction	$3,233,690	$3,152,285	$3,036,353	($115,932)	97.5%	93.9%	-3.6%
Commercial & Legal	$30,280	$19,110	$17,242	($1,868)	63.1%	56.9%	-6.2%
Contingency	$102,750	$0	$0	$0	0.0%	0.0%	0.0%
TOTAL	$3,723,716	$3,478,412	$3,359,738	($118,674)	93.4%	90.2%	-3.2%

December 2017 ($000)	Project Budget at June 2017	Incurred Costs Cumulative December 2017	Project Final Forecast Cost December 2017	Variance PFC from Budget
Description	*A*	*B*	*C*	*D=A-C*
NE-LCP Owners Team, Admin and EPCM Services	$322,101	$274,954	$322,292	($191)
Feasibility Engineering	$19,167	$19,167	$19,167	$0
Environmental & Regulatory Compliance	$14,726	$11,410	$14,726	$0
Aboriginal Affairs	$1,003	$612	$1,038	($35)
Procurement & Construction	$3,233,690	$3,036,353	$3,205,370	$28,320
Commercial & Legal	$30,280	$17,242	$30,662	($382)
Contingency	$102,750	$0	$130,462	($27,712)
TOTAL	$3,723,716	$3,359,738	$3,723,716	$0

III. Labrador Transmission Assets

December 2017 ($000)	Project Budget	Cumulative $			Cumulative %		
		Plan	Incurred	Variance	Plan	Incurred	Variance
Description	*A*	*B*	*C*	*C-B*	*D=B/A*	*E=C/A*	*E-D*
NE-LCP Owners Team, Admin and EPCM Services	$137,284	$132,942	$125,292	($7,650)	96.8%	91.3%	-5.6%
Feasibility Engineering	$363	$363	$363	$0	100.0%	100.0%	0.0%
Environmental & Regulatory Compliance	$817	$817	$812	($5)	100.0%	99.4%	-0.6%
Aboriginal Affairs	$80	$40	$140	$100	50.0%	175.0%	125.0%
Procurement & Construction	$739,617	$738,913	$704,556	($34,357)	99.9%	95.3%	-4.6%
Commercial & Legal	$5,383	$4,285	$5,059	$774	79.6%	94.0%	14.4%
Contingency	$10,012	$0	$0	$0	0.0%	0.0%	0.0%
TOTAL	$893,556	$877,360	$836,222	($41,138)	98.2%	93.6%	-4.6%

December 2017 ($000)	Project Budget at June 2017	Incurred Cumulative Costs December 2017	Project Final Forecast Cost December 2017	Variance PFC from Budget
Description	*A*	*B*	*C*	*D=A-C*
NE-LCP Owners Team, Admin and EPCM Services	$137,284	$125,292	$137,284	$0
Feasibility Engineering	$363	$363	$363	$0
Environmental & Regulatory Compliance	$817	$812	$817	$0
Aboriginal Affairs	$80	$140	$246	($166)
Procurement & Construction	$739,617	$704,556	$742,283	($2,666)
Commercial & Legal	$5,383	$5,059	$6,383	($1,000)
Contingency	$10,012	$0	$6,179	$3,833
TOTAL	$893,556	$836,222	$893,556	$0

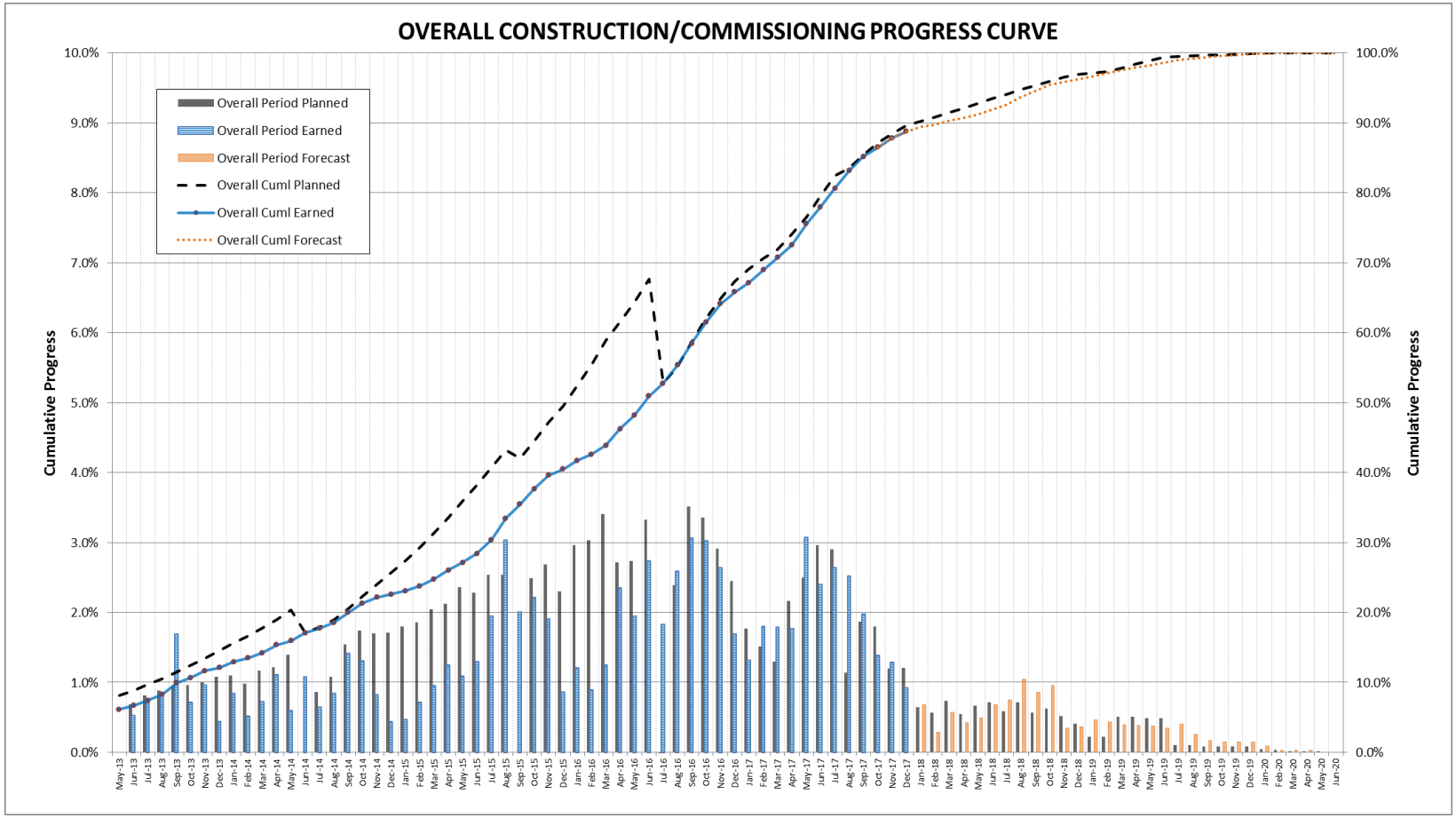
Annex C

Earned Progress

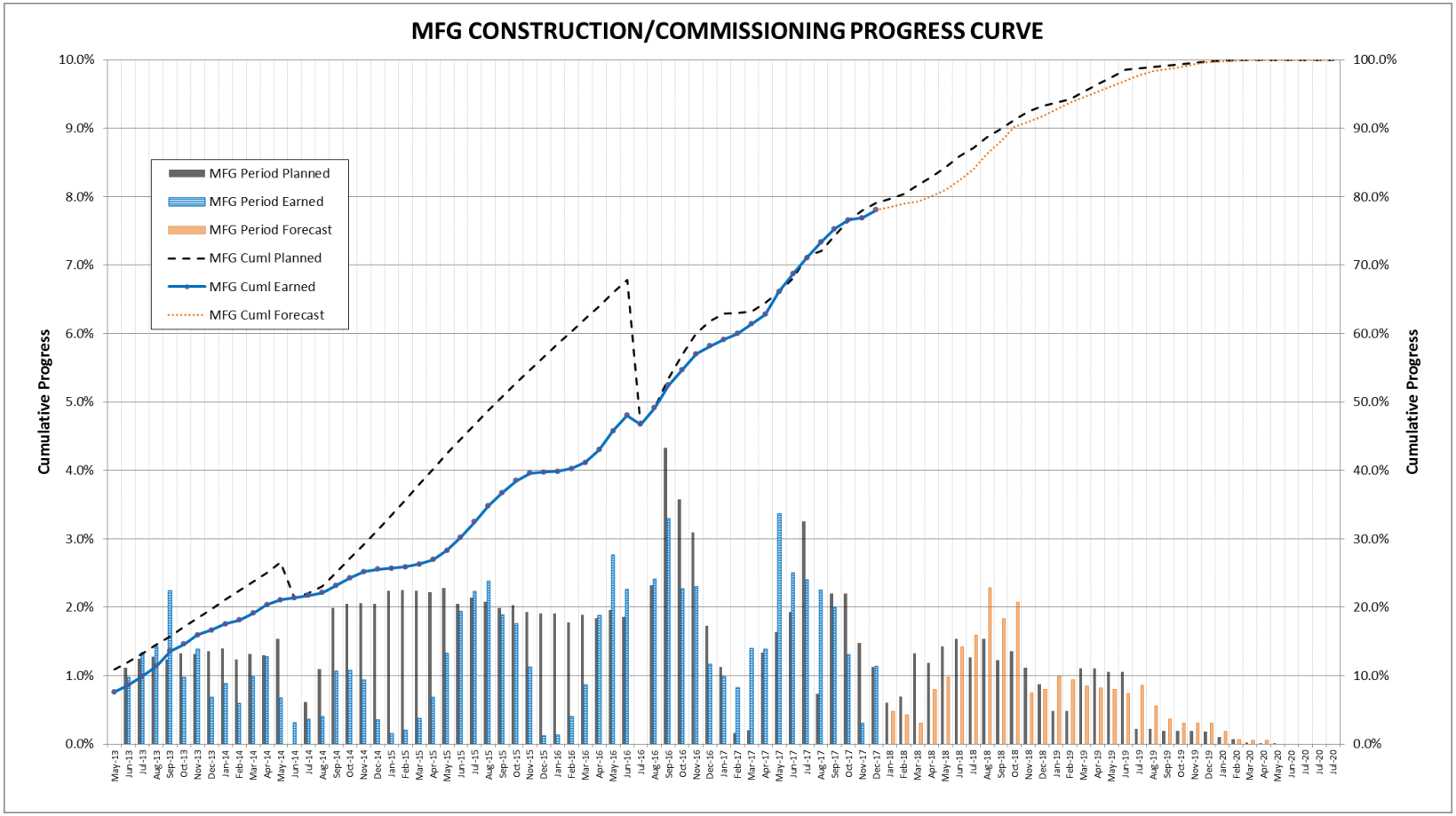
I. Overall Construction
II. Muskrat Falls Generation
III. Powerhouse Concrete Placement
IV. Labrador Island Transmission Link
V. Labrador Transmission Assets

Columns in tables may not total due to rounding

I. Overall Construction



II. Muskrat Falls Generation



II. Muskrat Falls Generation

December 2017	Weight Factor %	December 2017 Cumulative %			November 2017 Variance
		Plan	Earned	Variance	
Sub-Project	A	B	C	D = C - B	E
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%	93.3%	85.3%	-8.0%	-7.6%
MFG North Spur Stabilization	3.9%	100.0%	100.0%	0.0%	0.0%
MFG North Dam	5.7%	64.6%	57.3%	-7.3%	-6.6%
MFG Powerhouse & Intake	61.3%	71.0%	71.5%	0.5%	0.5%
MFG South Dam	1.1%	100.0%	99.2%	-0.8%	-0.8%
MFG Misc:Eng/ 315kV/Site Rest./logistic	1.1%	78.0%	75.5%	-2.5%	-2.5%
MFGen - Overall	100.0%	79.1%	78.0%	-1.1%	-1.1%

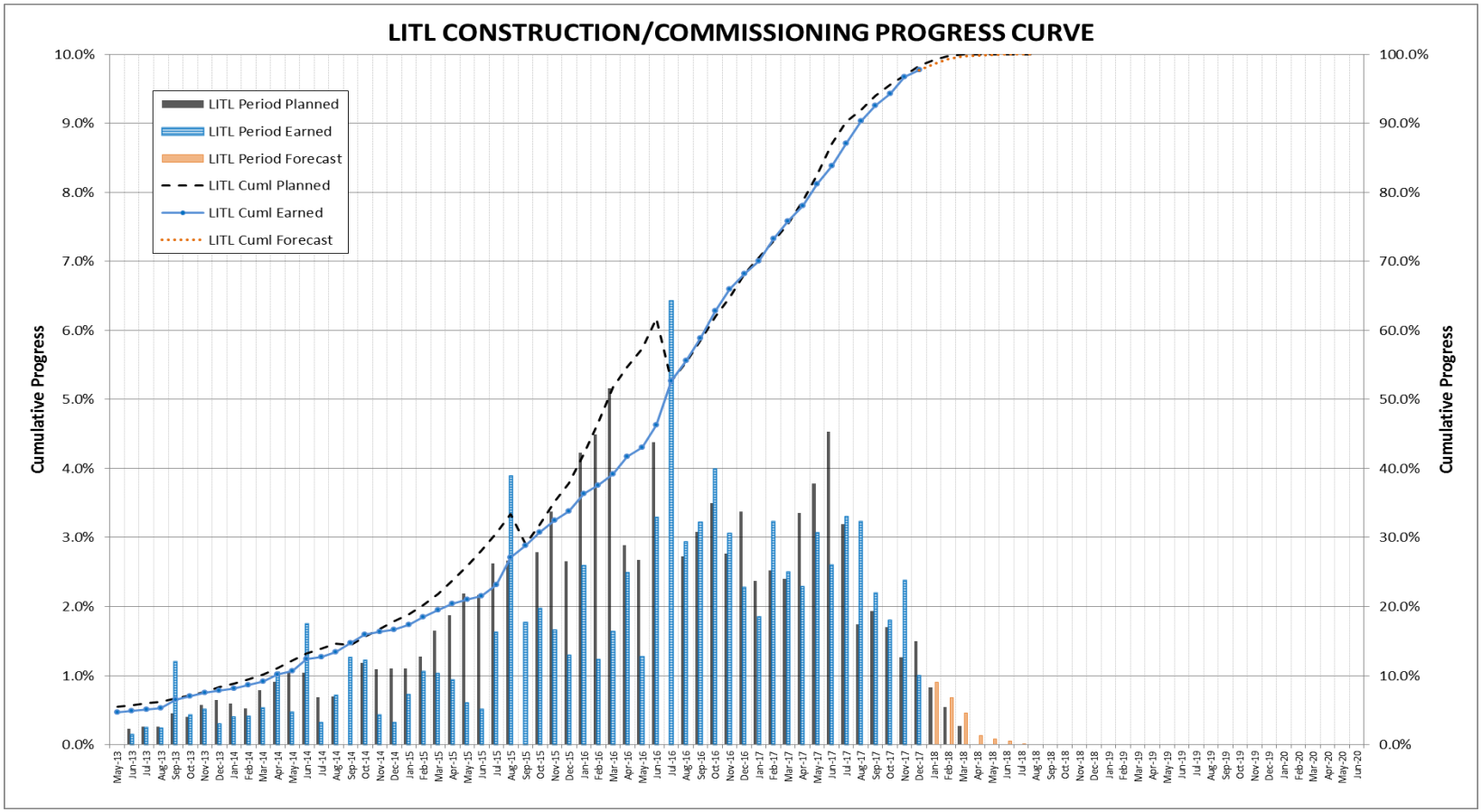
III. Powerhouse Concrete Placement

CH0007-001 - Concrete Production

Data Date: 23-Dec-2017

Month	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-2017	Jun-2017	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Total
Cumulative Concrete Target	264,822	272,252	280,942	297,727	316,107	335,533	353,225	369,379	379,197	384,843	387,790	389,668	
Cumulative Concrete Placed	266,219	274,455	285,394	299,199	319,793	339,431	359,100	372,005	382,554	389,860			-
Monthly Concrete Target	4,208	7,430	8,690	16,785	18,380	19,426	17,692	16,154	9,818	5,646	2,947	1,878	129,054
Monthly Concrete Placed	5,605	8,236	10,939	13,805	20,594	19,638	19,669	12,905	10,549	7,306	1,440	536	131,222
Variance - Monthly Target	1,397	806	2,249	(2,980)	2,214	212	1,977	(3,249)	731	1,660	(1,507)	(1,342)	
Variance - Cumulative Target	1,397	2,203	4,452	1,472	3,686	3,898	5,875	2,626	3,357	5,017	3,510	2,168	

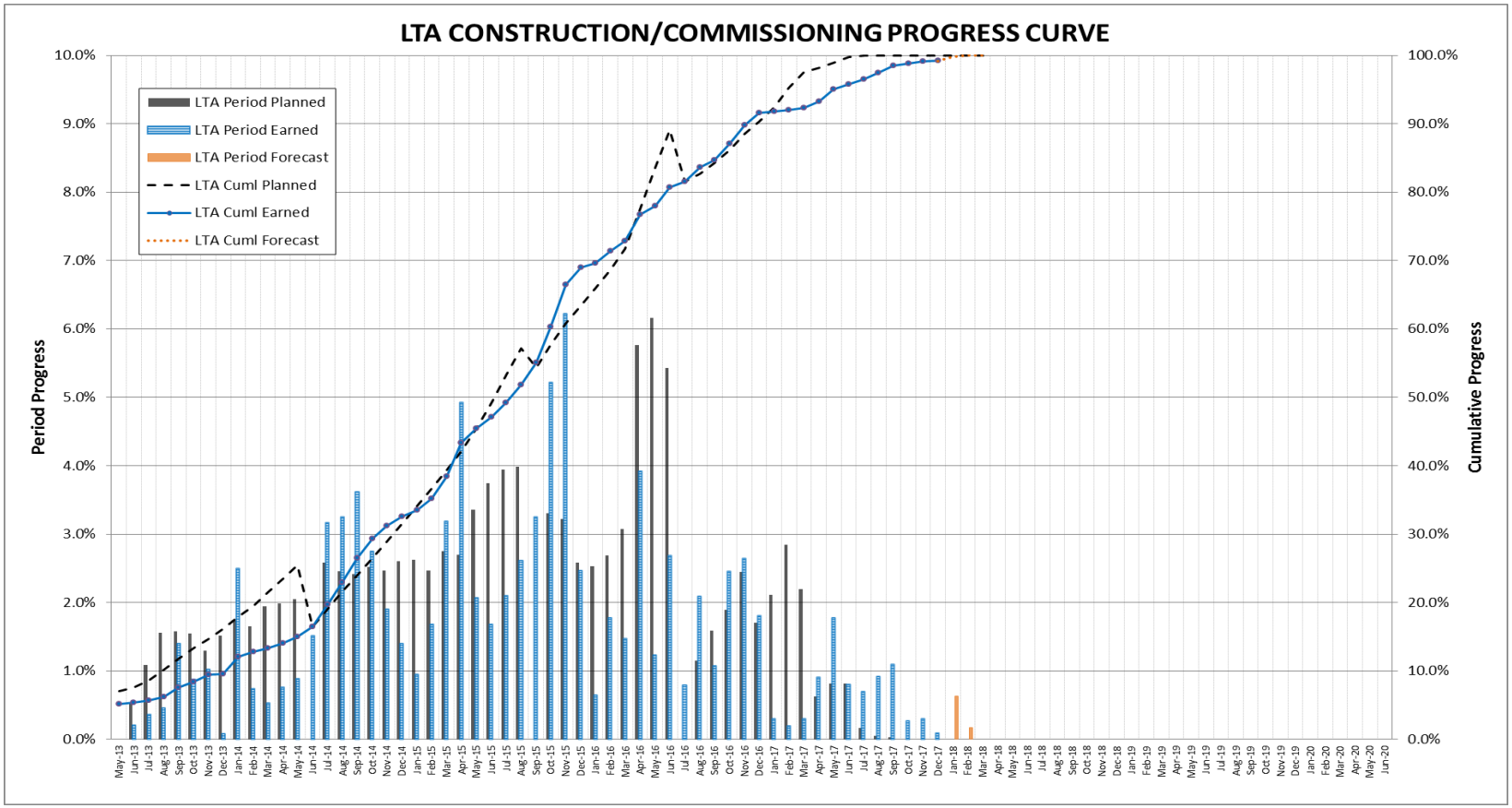
IV. Labrador Island Transmission Link



IV. Labrador Island Transmission Link

December 2017	Weight Factor %	December 2017 Cumulative % Plan	Earned	Variance	November 2017 Variance
Sub-Project	A	B	C	D = C - B	E
LITL Muskrat Falls Converter	6.1%	99.1%	87.2%	-11.9%	-19.7%
LITL Soldiers Pond Converter	5.5%	97.9%	89.1%	-8.8%	-13.5%
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%	95.8%	99.7%	3.9%	8.1%
LITL Electrode Sites	0.8%	100.0%	96.3%	-3.7%	-6.4%
LITL Transition Compounds	1.7%	98.0%	90.8%	-7.2%	-7.2%
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%	85.6%	-14.4%	-18.8%
LITL Misc	1.4%	100.0%	83.9%	-16.1%	-18.8%
LITL- Overall	100.0%	98.4%	97.7%	-0.7%	-0.2%

V. Labrador Transmission Assets



V. Labrador Transmission Assets

December 2017	Weight Factor %	December 2017 Cumulative % Plan	Earned	Variance	November 2017 Variance
Sub-Project	A	B	C	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%	99.5%	-0.5%	-0.7%
LTA Muskrat Falls Switchyard	13.4%	100.0%	95.3%	-4.7%	-4.7%
LTA Misc	2.1%	100.0%	96.3%	-3.7%	-5.2%
LTA - Overall	100.0%	100.0%	99.2%	-0.8%	-0.9%

Annex D

Project Milestone Schedule

I. Muskrat Falls Generation

II. Labrador Island Transmission Link

III. Labrador Transmission Assets

I. Muskrat Falls Generation

December 2017	Planned Date June 2017	December Actual/Forecast
Project Sanction	17-Dec-12	Complete
North Spur Works Ready for Diversion	31-Oct-16	Complete
River Diversion Complete	15-Feb-17	River Diversion Achieved; winter head pond impoundment in progress.
Reservoir Impoundment Complete	1-Nov-19	14-Oct-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 2017	Planned Date June 2017	December 2017 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	12-Mar-18
Muskrat Falls Converter Station Ready to Energize (Pole 1)	1-Jun-18	13-May-18
HVdc Transmission Line Construction Complete	31-Dec-17	Complete
Soldier's Pond Converter Station Ready to Energize (Pole 1)	1-Jun-18	29-Apr-18
1ST Power Transfer (Pole 1)	1-Jul-18	5-Jun-18
Soldiers Pond Synchronous Condenser Ready for Operation	1-Jun-18	23-Aug-18
Ready for Power Transmission (Low Load Testing Complete Pole 1)	1-Dec-18	4-Aug-18
Muskrat Falls and Soldiers Pond Converter Stations - Bipole Dynamic Testing Complete	31-Mar-19	27-Feb-19
Commissioning Complete - Commissioning Certificate Issued	1-Sep-20	1-Sep-20

III. Labrador Transmission Assets

Labrador Transmission Assets	June 2017 Budget Planned Date	December 2017 Actual / Forecast
Project Sanction	17-Dec-12	Complete
HVac Transmission Line Construction Complete	31-May-17	Complete: turn over of Line 3101 and 735 kv line pending.
Churchill Falls Switchyard Ready to Energize	30-Nov-17	24-Jan-18
Muskrat Falls Switchyard Ready to Energize	30-Nov-17	28-Feb-18
Ready for Power Transmission	31-Dec-17	12-Mar-18
Commissioning Complete - Commissioning Certificate Issued	1-Sep-20	1-Sep-20

End of Report