

Muskrat Falls Project Oversight Committee

Quarterly Project Update

Period Ending September 2021

February 17, 2022

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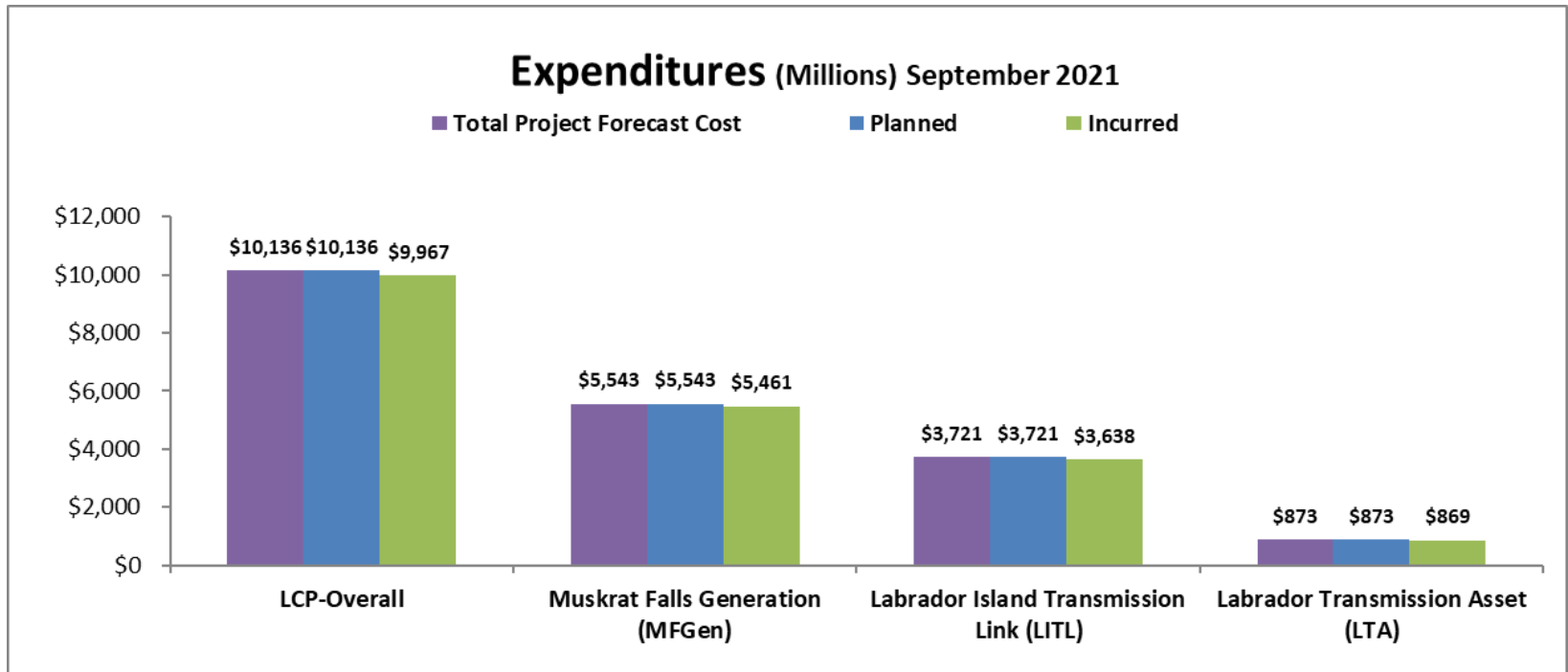
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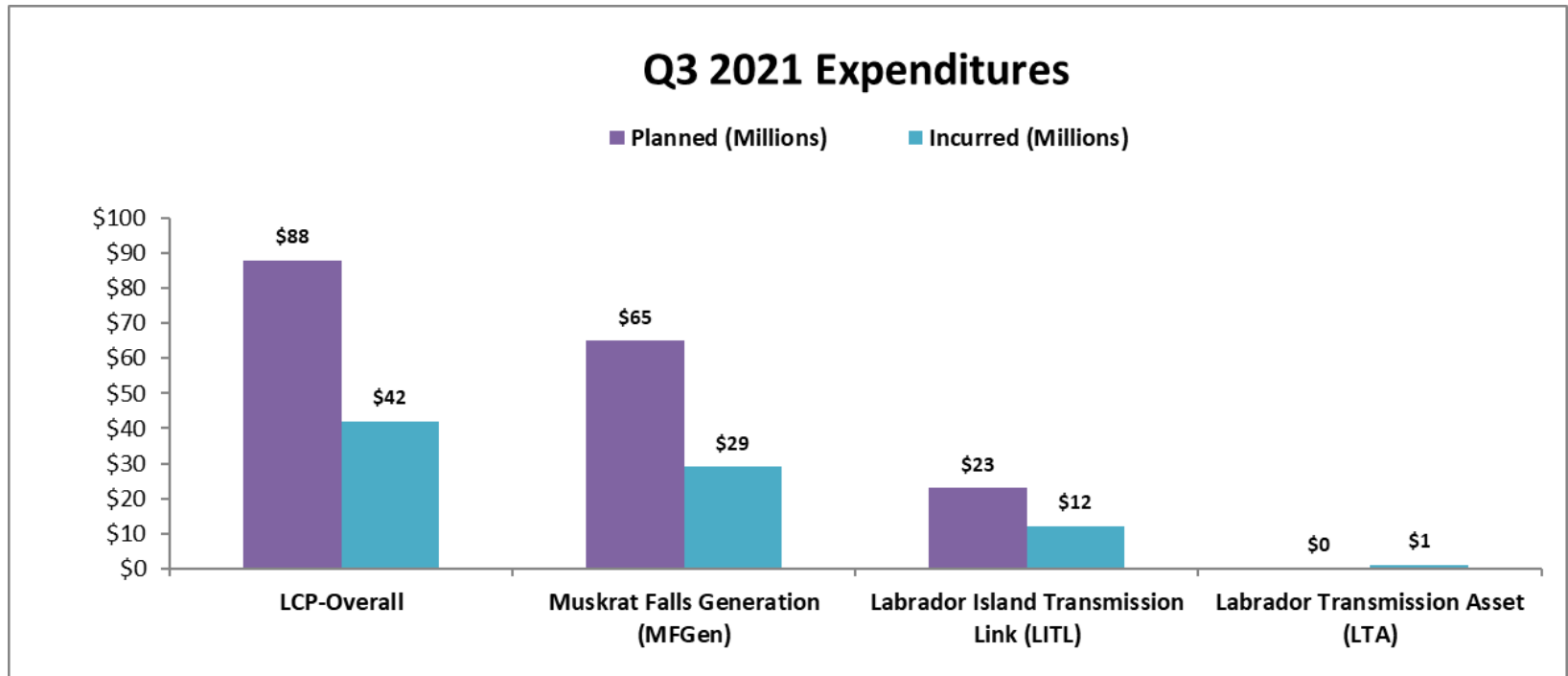
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- Tables and figures may not total due to rounding

1. Q3 2021 Cumulative Costs



2. Q3 2021 Planned and Incurred Costs



3.0 Oversight Committee Reporting

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3.1 Overview

- The Oversight Committee (Committee) receives details on project costs incurred, schedule progress, changes in costs and milestone schedule, the status of construction, and 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 July to September 2021 reporting period (Q3).
- Section 3 of this report contains information developed by the Committee.
- Section 3.5 of this report includes recent information on notable activity beyond the Q3 reporting period ending, and up to the date of drafting this report (January 5, 2022). Project update information in this section supersedes information as reported in other sections of this report.
- Section 4 contains project cost and schedule information as reported by Hydro for the reporting period ending September 2021 which includes project activity updates to mid-November 2021.
- The Annexes contain a more detailed accounting of the information provided in this report.
- The next Committee Report will cover the reporting period October 2021 – December 2021.

3.2 Committee Activities

- The Committee met on two occasions during the Quarter 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 Chair and/or Industry, Energy and Technology (IET) officials participated as an observer in two monthly calls on Hydro project reporting to the Independent Engineer (IE) and Natural Resources Canada (NRCan) and one call with the IE and NRCan.
- The IET officials participated in one call with Hydro Transition to Operations (TTO) officials to receive project updates.
- As indicated in the Committee's Q2 report subsequent events to Q2 section, three independent committee members participated in a site visit to Soldiers Pond in July 2021, and the Committee Chair and IET official participated remotely in various meetings during the Independent Engineer site visits and meetings sessions held in July and October 2021.

3.3 Independent Engineer Activities

- With easing of COVID-19 travel restrictions during the Quarter, the Independent Engineer attended project site visits and meetings through the July 13-16, 2021 period.

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 notes:
 - LITL bipole final software schedule delivery and commissioning delays and risk continues;
 - Synchronous condenser unit 1 commissioning is progressing on schedule;
 - Powerhouse unit 3 is operating;
 - Litigation and arbitration proceedings continue with Astaldi; and
 - Nalcor/NLH preparedness for interconnection and operations following transfer of power and final completion of bipole remains a key focus area.

3.4 Risk and Issues being Monitored by the Committee

- 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;
 - Potential commercial negotiations to settle claims; and
 - Potential for new claims as construction nears completion.

3.4 Risk and Issues being Monitored by the Committee

C) Phased Commissioning

- Completion of P&C software to enhance functionality and reliability; associated warranty considerations with early asset handover during commissioning and completion;
- 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 delivery and final commissioning completion to meet project schedule; remaining software work beyond dynamic commissioning and long-term system performance.

D) Astaldi

- Astaldi arbitration/litigation outcomes and potential impact on project costs.

E) Synchronous Condensers

- Remediation of vibration and other commissioning issues; potential impact on project schedule and long term performance.

3.4 Risk and Issues being Monitored by the Committee

F) Insurance Claims and Coverage

- Potential coverage: Preservation/re-preservation of Turbine and Generator parts - investigations ongoing - claim is still active, and resolutions are part of ongoing commercial discussions with Andritz.
- Coverage confirmed: A second payment for spillway secondary concrete (\$2.23M) was received in December 2021 to cover Contractor direct costs – further recovery, including LCP costs are pending.
- Potential Coverage: Intake concrete repairs - estimated submitted to loss adjuster in November 2021 for remediation costs. Gathering actual cost backup for submission.
- Potential coverage: Valve Hall remediation – estimate submitted to loss adjuster in November for remediation costs. Gathering actual cost back up for submission.

G) LITL and Powerhouse Commissioning

- Commissioning of LITL and powerhouse generation unit 4 and project schedule.

H) 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.

3.4 Risk and Issues being Monitored by the Committee

- I) Additional Risks (above the September 2021 Project Budget)
 - COVID-19 cost and schedule impacts;
 - Astaldi arbitration/litigation;
 - Failure to meet revised schedule milestones (unknown); and
 - Any significant legal costs due to new disputes with contractors (unknown).
- Funds are not held within the September 2021 Project Budget for these additional risks.

3.5 Subsequent Events to Q3 2021 and Other Notable Activity

- In November and December 2021, Hydro provided the Newfoundland and Labrador Board of Commissioners of Public Utilities (PUB) with monthly updates in response findings of the Liberty Consulting Group Eight Quarterly Monitoring Report on the Integration of Power Supply Facilities to the Island Interconnected System.
- In November 2021, the PUB released the Liberty Consulting Group Thirteenth Quarterly Monitoring Report on the Integration of power Supply Facilities to the Island Interconnected System.
- In November 2021, the IE issued an October 4-8, 2021 project site visit and meetings report.
- In November 2021, Hydro announced that the Muskrat Falls Hydroelectric Generating Station is complete and has been released to the Newfoundland and Labrador System Operator (NLSO) for service. Muskrat Falls Corporation received notice of acceptance of the commissioning certificate by the IE, who provides oversight on behalf of the Federal Government, on November 25, 2021.
- In December 2021, Hydro presented its third quarter 2021 financial results for Nalcor Energy. Further information is available on the website @ [Click here](#).
- In December 2021, the Committee held its quarterly conference with the IE and NRCAN.
- In January 2022, a new amending agreement was reached with GE for Full Function Bipole (FFB) software completion.

3.5 Subsequent Events to Q3 2021 and Other Notable Activity

- In mid-December 2021, Power Supply advised:
 - Full Function Bipole Software Completion Status
 - GE has completed regression testing and Factory Acceptance Tests (FAT) of a new version Full Function Bipole (FFB) software. The software was released to site in December to commence dynamic commissioning which is scheduled to be complete on December 18, 2021.
 - The dynamic commissioning plan includes high power tests, which if successful, will increase the power transfer limit of LITL.
 - Pending the outcome of dynamic commissioning, Power supply will continue to optimize the use of the LITL with this version of software, at increased power levels, until a new version is released in 2022.

3.5 Subsequent Events to Q3 2021 and Other Notable Activity

- LITL Operation
 - The LITL has been energized intermittently since October 15, 2021 to allow GE to conduct a series of dynamic commissioning tests on the first version of FFB software.
 - Tests were completed on November 11, 2021 and the LITL had been operating throughout November transferring up to 312 MW.
 - GE requested outages from November 22-23 and November 29-December 4, 2021 to clear site punch list items.
 - The LITL was re-energized on December 9, 2021 with the new version of FFB software. A trip occurred on December 11, 2021 which was resolved. After testing was complete, the LITL was re-energized on December 17, 2021. Plans for high power testing were deferred at the time.

3.5 Subsequent Events to Q3 2021 and Other Notable Activity

- Full Function Bipole Software schedule
 - GE has not provided a schedule for delivery of the next version of FFB software to be used for trial operations in 2022.
 - Based on GE's continued struggle to meet milestones, and the unpredictability of bug resolution at this stage, Power Supply cannot provide a meaningful forecast for the delivery of the next version of software.
 - Power supply is currently working with GE to achieve a final commissioning date by Date Certain in 2022 and a new amending agreement with GE is under negotiation.
- Synchronous Condensers
 - In November 2021, GE Power made an adjustment to SC unit 1 lube oil system and is believed to have damaged the collector bearing. A root cause analysis is ongoing but GE Power has indicated that it could take several months to have the unit back in service. SC units 2 and 3 are in operation with no planned maintenance work.

3.5 Subsequent Events to Q3 2021 and Other Notable Activity

- On January 1, 2022, Hydro advised that a new amending agreement for FFB software completion was being finalized with GE.

- The planned schedule is:

Milestone	Schedule
FFB software released to site	Q1, 2022
Dynamic Commissioning complete	Q1, 2022
Trial Operations start*	Q1, 2022

- Critical punch list items that do not prevent power transfer during dynamic commissioning and trial operations using the new Q1 2022 FFB version of software will be resolved by GE at the end of a six month burn-in period in a final version of FFB software.
- Risk remains that milestone dates may not be achieved.

*Trial Operations is complete after 30 consecutive days of power transfer without a trip attributed to the HVdc system

3.5 Subsequent Events to Q2 2021 and Other Notable Activity

- In mid-December 2021, Power Development advised:
 - All four MFGen units are under operations care and custody with dispatch as required by the Newfoundland and Labrador System Operator (NLSO).

Unit	Status
1	In operation
2	Unit was released by the NLSO to Power Development for Turbine and Generator punch list clearance. In relation to observed vibration, a runner inspection was completed but did not reveal any issues. Next steps are under consideration by Andritz Engineering
3	In operation
4	Unit was released by the NLSO to Power Development for Turbine and Generator punch list clearance.

- Balance of plant commissioning and punch list clearance is ongoing.
 - MFGen/LTA Commissioning Certificate was issued on November 22, 2021 and accepted on November 25, 2021.
- In early January 2022, all four MFGen units were operating.

4.0 Hydro Reporting

- 4.1 Summary - Quarter Ending September 2021
- 4.2 Project Expenditures
- 4.3 Contingency
- 4.4 Earned Progress

*Information in this section was provided for period ending September 2021 project reporting which includes project activity updates to mid-November 2021. Recent updates to this section can be found in Section 3.5.

4.1 Summary – Quarter Ending September 2021

September 2021 Summary:

- Overall construction progress is at 99.3% (December 2019);
- \$9,967 Million in incurred costs; and
- \$9,984 Million in committed costs.
- In September 2021, the September 2020 budget was revised.
 - Due to project delays, the Hydro board approved a reduction of undrawn contingency from facilities capital from MFGGen, LTA, and LITL and reallocated it to Transition to Operations (TTO) and Financing Costs. Correspondingly, the project capital budget has also been reduced to reflect these reallocations.
 - In summary, approximately \$40.5 Million was reallocated from the Project Capital Budget, with \$17 Million being assigned to TTO and \$23 Million to Financing Costs, based on forecasted commissioning dates of November 27, 2021 and October 31, 2021 for LITL and MFGGen/LTA respectively.
- The project budget does not include funding for Additional Risks as reported on slide 13, which at the end of September 2021, known risks totaled approximately \$450 Million. If these risks are realized, they may become project costs.
- The current forecast contingency budget at September 2021 is \$41.6 Million, a decrease of \$16.1 Million from the previous Quarter.
- For further detail see Section 4.2, 4.3 and Annex A

4.1 Summary – Quarter Ending September 2021

Quarterly Planned vs Incurred Cost Variances:

MFGGen	
Cumulative Planned: \$5,547M	Q3 2021 Planned: \$65M
Cumulative Incurred: \$5,461M	Q3 2021 Incurred: \$29M
Variance: -\$86M (-1.6%)	Variance: -\$36M (-55.4%)

- Planned expenditure by month was set in September 2020.
- During Q3 2021, the variance in planned vs. incurred cost is primarily due to lower use of contingency, as well as lower than planned expenditure on turbines and generators and balance of plant contracts, as well as Owners costs.
- See Section 4.2 and Annex B for further detail.

4.1 Summary – Quarter Ending September 2021

Quarterly Planned vs Incurred Cost Variances:

LITL	
Cumulative Planned: \$3,732M	Q3 2021 Planned: \$23M
Cumulative Incurred: \$3,638M	Q3 2021 Incurred: \$12M
Variance: -\$94M (-2.6%)	Variance: -\$11M (-47.8%)

LTA	
Cumulative Planned: \$873M	Q3 2021 Planned: \$0M
Cumulative Incurred: \$869M	Q3 2021 Incurred: \$1M
Variance: -\$4M (-0.4%)	Variance: \$1M

- The planned expenditure by month was set in June of 2020.
- During Q3 2021, the variance of planned vs incurred cost is primarily due to lower use of LITL and LTA contingency, as well as lower than planned expenditure on Owners costs, synchronous condensers and converter station contracts.
- See Section 4.2 and Annex B for further detail.

4.1 Summary – Quarter Ending September 2021

Earned Progress: (As of December 2019)

- MFGen
 - >98.5 complete
- LITL
 - >99% complete
- LTA
 - Complete
- See Section 4.2 and Annex C for further detail.

4.1 Summary – Quarter Ending September 2021

Power Development¹

- Turbines and Generators

Unit	Status
1	<ul style="list-style-type: none">• All required repairs and maintenance is complete• Unit has been returned to service
2	<ul style="list-style-type: none">• Currently operating at a constant power setting• Andritz will complete a runner inspection during the upcoming planned outage in November in relation to observed vibration issues
3	<ul style="list-style-type: none">• Currently operating• A planned outage is scheduled for early January 2022
4	<ul style="list-style-type: none">• Synchronization to grid was completed on November 5, 2021• Online tests are ongoing• Forecast for release for service is currently scheduled for mid-November 2021

- On November 14, 2021, a milestone was achieved when for the first time all four MFGGen units were operating simultaneously.
- Power Development intends to issue the Commissioning Certificate for MFGGen/LTA upon completion of trial run of unit 4.

¹ Some activities in this and the following Power Development slides have occurred since September 2021.

4.1 Summary – Quarter Ending September 2021

Power Development Summary Schedule (CH0030)

Activity	Remaining Scope	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Comments
Turbines and Generators	Unit 1 - Commissioning and Trial Operations							Ready for Operation Achieved - Dec 2020
	Unit 1 - Commercial Power (Ready for Operation)			★				
	Unit 2 - Pre Commissioning Tests							Ready for Operation Achieved - June 2021
	Unit 2 - Commissioning and Trial Operations							
	Unit 2 - Commercial Power (Ready for Operation)				★			
	Unit 3 - Assembly and Installation							Ready for Operation Achieved - August 2021
	Unit 3 - Pre Commissioning Tests							
	Unit 3 - Commissioning and Trial Operations							
	Unit 3 - Commercial Power (Ready for Operation)					★		
	Unit 4 - Assembly and Installation							Ready for Operation - November 2021
	Unit 4 - Pre Commissioning Tests							
	Unit 4 - Commissioning and Trial Operations							
	Unit 4 - Commercial Power (Ready for Operation)						★	

4.1 Summary – Quarter Ending September 2021

- Balance of Plant (>95% complete)
 - Cahill-Ganotec (CG) is completing balance of plant systems
 - Completion of architectural scope, punch list clearance and commissioning activities ongoing
- Hydro – Mechanical
 - Intake
 - Secondary concrete assessments and repair plans are complete including:
 - Unit 2 (sill) - epoxy repair
 - Unit 3 (lintel) - steel plating
 - Unit 4 (lintel) – steel plating
 - This repair work will be completed during upcoming planned unit outages
- Arbitration with Astaldi continues; payment of Astaldi related liens against the project continues; Hydro intends to recover any costs associated from Astaldi or the contract's securities. Hearings concluded in July 2020; final decisions are now expected in January 2022 rather than late October 2021. Other than project residual contingency, funds are not held within the September 2021 budget should net damages be awarded in Astaldi's favour.
- Focus areas for Q4, 2021 include installation and commissioning of unit 4 and punch list clearance. Forecast expenditure for Q4, 2021 is estimated at approximately \$68 Million.

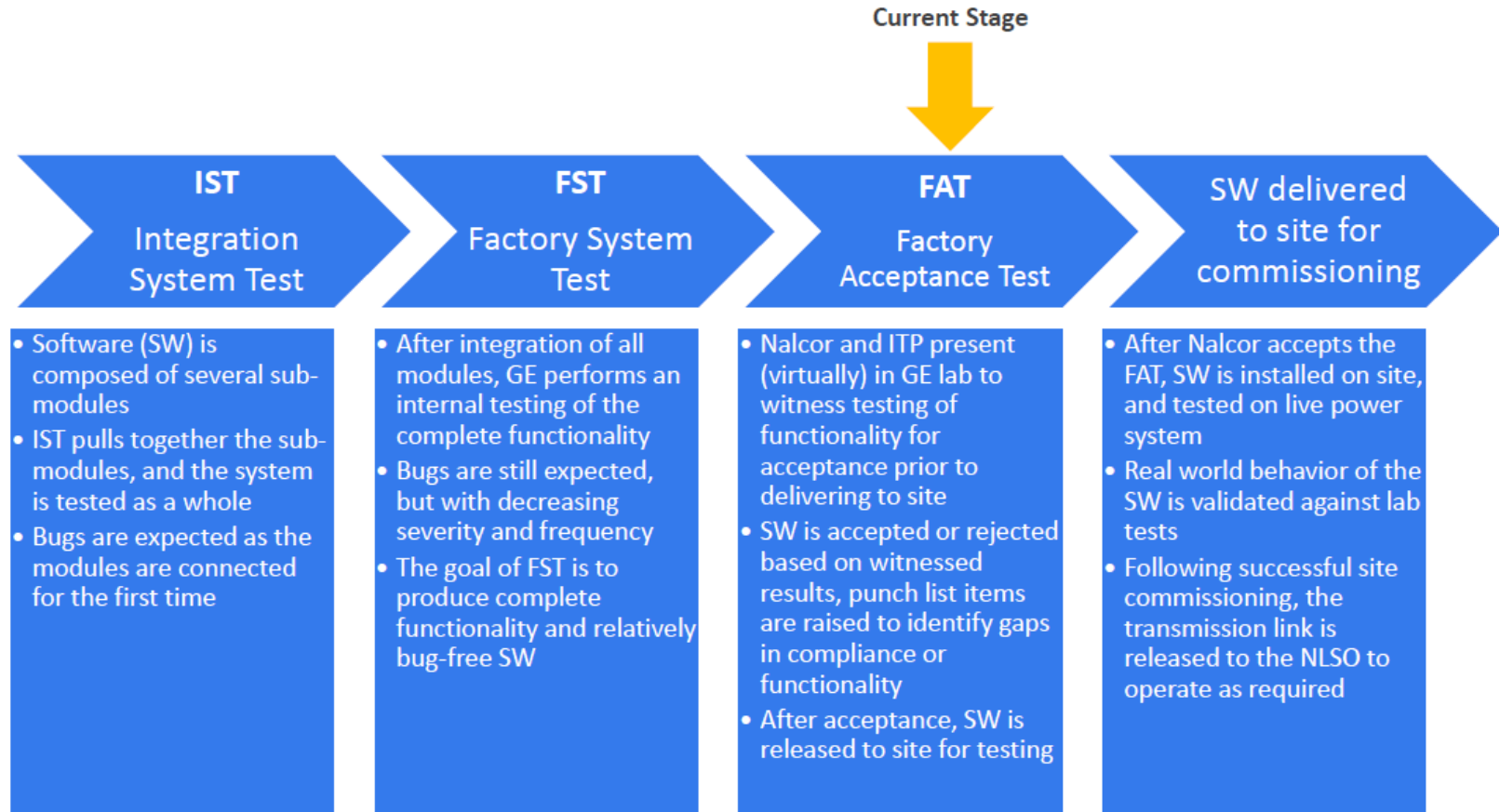
4.1 Summary – Quarter Ending September 2021

- Power Supply¹:
 - Final Bipole Software
 - GE has incorporated all required functions into the bipole software and is now referred to as the Full Function Bipole (FFB) software
 - GE has conducted Factory System Tests (FST) and Factory Acceptance Tests (FAT) of the FFB software. During testing GE discovered bugs in the software that require resolution
 - GE have been working for the past several weeks to clear the remaining critical bugs and regression testing is ongoing
 - Following regression testing a second round of FAT will be performed before releasing to site for dynamic commissioning activities and start of trial operations
 - GE provided a revised milestone schedule for critical bug fixing and delivery of the FFB on October 25, 2021 which can be found on slide 31
 - New issues identified by GE during regression testing and recently communicated to Hydro now indicate that the current schedule included on slide 31 may now not be achievable
 - As a result of FFB software completions delay, a Date Certain extension request was requested by Hydro and approved on November 18, 2021 by the Government of Canada

¹ Some activities in this and the following Power Supply slides have occurred since September 2021

4.1 Summary – Quarter Ending September 2021

FINAL BIPOLE SOFTWARE TESTING STAGES



4.1 Summary – Quarter Ending September 2021

- LITL Operation
 - The LITL has been energized intermittently since October 15, 2021 to allow GE to conduct a series of dynamic commissioning tests on the current version of FFB software
 - Dynamic commissioning tests were completed on November 10, 2021. Onsite issues identified during dynamic commissioning will be assessed by GE and any required fixes will be implemented before the next round of dynamic commissioning
 - The LITL was re-energized on November 11, 2021 with the current version of FFB and is planned to be online for the next several days. A coordinated outage is planned for late November to clear open punch list items.

4.1 Summary – Quarter Ending September 2021

- Final Bipole Software (FFB) Schedule

GE Milestones	GE Schedule Received October 25, 2021	LCP Assessed Possible Outcomes
FAT: Complete	November 11, 2021	November 15, 2021
Dynamic Commissioning: Start	November 12, 2021	November 16, 2021
Dynamic Commissioning: Complete	November 28, 2021	January 30, 2022
Trial Operations: Start	December 1, 2021	January 31, 2022
Trial Operations: Complete*	December 31, 2021*	March 31, 2022*

*Trial operations is complete after 30 consecutive days of power transfer without a system trip attributed to the HVdc system.








4.1 Summary – Quarter Ending September 2021

- Synchronous Condensers

SC3	SC2	SC1
▪Working with Power Supply on Turnover	▪Working with Power Supply on Turnover	▪Working with Power Supply on Turnover
Commissioning complete achieved on May 25, 2021	Commissioning Complete achieved June 24, 2021	Commissioning Complete achieved: October 10, 2021

- All three units are commissioned and have been in operation to support LIL power transfer
- 100% load rejection test for the units are tentatively planned for mid December, pending system conditions

- LITL Summary Schedule

Activity	Remaining Scope	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Comments
Transmission	LIL Bipole Commissioning (Full Function Software)						Trial Operations (Final) March 31, 2021
	LIL Bipole Trial Operations (Full Function Software)						
	Dynamic Commissioning Sync Condenser (Unit 3)						3 Units Ready Oct 2021 (3 Units Complete)
	Dynamic Commissioning Sync Condenser (Unit 2)						
	Dynamic Commissioning Sync Condenser (Unit 1)						

- The focus for Q4 2021 is on continued completions, commissioning and integration of operations and the forecast expenditure is estimated at approximately \$37 Million.

4.2 Project Expenditures

September 2021 (\$000)	Project Revised Budget September 2021	Cumulative \$			Cumulative %		
		Plan	Incurred	Variance	Plan	Incurred	Variance
<i>Description</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>C-B</i>	<i>D=B/A</i>	<i>E=C/A</i>	<i>E-D</i>
NE-LCP Owners Team, Admin and EPCM Services	\$1,162,016	\$1,158,877	\$1,144,082	(\$14,795)	99.7%	98.5%	-1.3%
Feasibility Engineering	\$35,843	\$35,847	\$35,530	(\$317)	100.0%	99.1%	-0.9%
Environmental & Regulatory Compliance	\$40,566	\$40,706	\$39,728	(\$978)	100.3%	97.9%	-2.4%
Aboriginal Affairs	\$52,301	\$52,301	\$53,638	\$1,337	100.0%	102.6%	2.6%
Procurement & Construction	\$8,680,933	\$8,732,457	\$8,582,421	(\$150,036)	100.6%	98.9%	-1.7%
Commercial & Legal	\$119,731	\$116,245	\$112,079	(\$4,166)	97.1%	93.6%	-3.5%
Contingency	\$45,044	\$0	\$0	\$0	0.0%	0.0%	0.0%
TOTAL	\$10,136,431	\$10,136,433	\$9,967,478	(\$168,955)	100.0%	98.3%	-1.7%

September 2021 (\$000)	Project Revised Budget September 2021	Incurred Cumulative Costs September 2021	Project Final Forecast Cost September 2021	Variance PFC from Budget
<i>Description</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D=A-C</i>
NE-LCP Owners Team, Admin and EPCM Services	\$1,162,016	\$1,144,082	\$1,162,192	(\$176)
Feasibility Engineering	\$35,843	\$35,530	\$35,530	\$313
Environmental & Regulatory Compliance	\$40,566	\$39,728	\$40,566	\$0
Aboriginal Affairs	\$52,301	\$53,638	\$53,752	(\$1,451)
Procurement & Construction	\$8,680,933	\$8,582,421	\$8,683,637	(\$2,704)
Commercial & Legal	\$119,731	\$112,079	\$119,167	\$564
Contingency	\$45,044	\$0	\$41,587	\$3,457
TOTAL	\$10,136,431	\$9,967,478	\$10,136,431	\$0

Columns in tables may not total due to rounding

4.3 Contingency

September 2021 (\$000)	Project Revised Budget September 2020	Project Forecast Cost June 2021	Project Forecast Cost September 2021	Change from Previous Quarter	Variance PFC from Budget
	<i>A</i>	<i>B</i>	<i>C</i>	<i>C - B</i>	<i>C - A</i>
Total Project	\$59,205	\$57,722	\$41,587	(\$16,135)	(\$17,618)

September 2021 (\$000)	Project Revised Budget September 2021	Project Forecast Cost September 2021	Variance PFC from Budget
	<i>A</i>	<i>B</i>	<i>B - A</i>
Total Project	\$45,044	\$41,587	(\$3,457)

4.4 Earned Progress (December 2019)

Cumulative to end of December 2019	Weight Factor %	December 2019 Cumulative %
		Earned
<i>Sub-Project</i>	A	C
Muskrat Falls Generation (MFGGen)	46.3%	98.5%
Labrador Island Transmission Link (LITL)	43.9%	99.97%
Labrador Transmission Asset (LTA)	9.8%	100.0%
Muskrat Falls Project - Overall	100.0%	99.3%

Annex A

- I. Project Capital Budget
- II. Project Milestone Schedule

Columns in tables may not total due to rounding

I. Project Capital Budget - September 2020

Muskkrat Falls Generating Facility (in \$ thousands)	September 2020
<i>Expenditure Category</i>	
NE-LCP Owners Team, Admin and EPCM Services	\$634,838
Feasibility Engineering	\$16,865
Environmental & Regulatory Compliance	\$28,230
Aboriginal Affairs	\$51,508
Procurement & Construction	\$4,703,316
Commercial & Legal	\$80,978
Contingency	\$44,240
Muskkrat Falls Generation Total	\$5,559,974
Labrador-Island Transmission Link (in \$ thousands)	September 2020
<i>Expenditure Category</i>	
NE-LCP Owners Team, Admin and EPCM Services	\$397,565
Feasibility Engineering	\$18,679
Environmental & Regulatory Compliance	\$11,664
Aboriginal Affairs	\$625
Procurement & Construction	\$3,266,059
Commercial & Legal	\$29,350
Contingency	\$13,546
Labrador-Island Transmission Link Total	\$3,737,488
Labrador-Transmission Assets (in \$ thousands)	September 2020
<i>Expenditure Category</i>	
NE-LCP Owners Team, Admin and EPCM Services	\$133,365
Feasibility Engineering	\$303
Environmental & Regulatory Compliance	\$812
Aboriginal Affairs	\$168
Procurement & Construction	\$734,424
Commercial & Legal	\$9,017
Contingency	\$1,419
Labrador Transmission Assets Total	\$879,508
Muskkrat Falls Capital Cost Budget Total	\$10,176,970

Contingency Budget (in \$ thousands)	September 2020
Sub-Project:	
Muskkrat Falls Generating Facility	\$44,240
Labrador-Island Transmission Link	\$13,546
Labrador Transmission Assets	\$1,419
Total Project	\$59,205

I. Project Capital Budget - September 2021

Muskrat Falls Generating Facility (in \$ thousands)	September 2021
<i>Expenditure Category</i>	
NE-LCP Owners Team, Admin and EPCM Services	\$633,767
Feasibility Engineering	\$16,865
Environmental & Regulatory Compliance	\$28,230
Aboriginal Affairs	\$51,508
Procurement & Construction	\$4,694,037
Commercial & Legal	\$81,978
Contingency	\$36,761
Muskrat Falls Generation Total	\$5,543,145
Labrador-Island Transmission Link (in \$ thousands)	September 2021
<i>Expenditure Category</i>	
NE-LCP Owners Team, Admin and EPCM Services	\$396,095
Feasibility Engineering	\$18,679
Environmental & Regulatory Compliance	\$11,664
Aboriginal Affairs	\$625
Procurement & Construction	\$3,256,529
Commercial & Legal	\$29,350
Contingency	\$7,837
Labrador-Island Transmission Link Total	\$3,720,778
Labrador-Transmission Assets (in \$ thousands)	September 2021
<i>Expenditure Category</i>	
NE-LCP Owners Team, Admin and EPCM Services	\$132,154
Feasibility Engineering	\$299
Environmental & Regulatory Compliance	\$672
Aboriginal Affairs	\$168
Procurement & Construction	\$730,367
Commercial & Legal	\$8403
Contingency	\$446
Labrador Transmission Assets Total	\$872,508
Muskrat Falls Capital Cost Budget Total	\$10,136,431

Contingency Budget (in \$ thousands)	September 2021
Sub-Project:	
Muskrat Falls Generating Facility	\$36,761
Labrador-Island Transmission Link	\$7,837
Labrador Transmission Assets	\$446
Total Project	\$45,044

II. Project Milestone Schedule

Muskrat Falls Generating Facility	Sep 2020 Planned Dates
North Spur Works Ready for Diversion	Oct-16
River Diversion Complete	Feb-17
Reservoir Impoundment Complete	Sep-19
Powerhouse Unit 1 Commissioned - Ready for Operation	Oct-20
First Power from Muskrat Falls	Sep-20
Powerhouse Unit 2 Commissioned - Ready for Operation	Dec-20
Powerhouse Unit 3 Commissioned - Ready for Operation	May-21
Powerhouse Unit 4 Commissioned - Ready for Operation	Sep-21
Full Power from Muskrat Falls	Sep-21
Commissioning Complete - Commissioning Certificate Issued	Oct-21

Labrador-Island Transmission Link	Sep 2020 Planned Dates
SOBI Cable Systems Ready	Dec-16
Soldiers Pond Switchyard Ready to Energize	Aug-17
Ready for Power Transmission (LTA)	Apr-18
Muskrat Falls Converter Station Ready to Energize (Pole 1)	May-18
HVdc Transmission Line Construction Complete	Nov-17
Soldier's Pond Converter Station Ready to Energize (Pole 1)	May-18
1ST Power Transfer (Pole 1)	Jun-18
Soldiers Pond Synchronous Condenser Ready for Operation	Aug-21
Ready for Power Transmission (Low Load Testing Complete Pole 1)	Jun-19
Muskrat Falls and Soldiers Pond Converter Stations - Bipole Dynamic Testing Complete	Sep-21
Commissioning Complete - Commissioning Certificate Issued	Oct-21

Labrador Transmission Assets	Sep 2020 Planned Dates
HVac Transmission Line Construction Complete	Jun-17
Churchill Falls Switchyard Ready to Energize	Feb-18
Muskrat Falls Switchyard Ready to Energize	Apr-18
Ready for Power Transmission	Apr-18
Commissioning Complete - Commissioning Certificate Issued	Oct-21

Date Certain – Nov-2021

Annex B

Project 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

September 2021 (\$000)	Project Revised Budget September 2021	Cumulative \$			Cumulative %		
		Planned	Incurred	Variance	Planned	Incurred	Variance
<i>Description</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>C-B</i>	<i>D=B/A</i>	<i>E=C/A</i>	<i>E-D</i>
NE-LCP Owners Team, Admin and EPCM Services	\$633,767	\$630,347	\$626,136	(\$4,211)	99.5%	98.8%	-0.7%
Feasibility Engineering	\$16,865	\$16,865	\$16,552	(\$313)	100.0%	98.1%	-1.9%
Environmental & Regulatory Compliance	\$28,230	\$28,230	\$27,482	(\$748)	100.0%	97.4%	-2.6%
Aboriginal Affairs	\$51,508	\$51,508	\$52,928	\$1,420	100.0%	102.8%	2.8%
Procurement & Construction	\$4,694,037	\$4,737,999	\$4,660,695	(\$77,304)	100.9%	99.3%	-1.6%
Commercial & Legal	\$81,978	\$78,197	\$77,016	(\$1,181)	95.4%	93.9%	-1.4%
Contingency	\$36,761	\$0	\$0	\$0	0.0%	0.0%	0.0%
TOTAL	\$5,543,145	\$5,543,145	\$5,460,809	(\$82,336)	100.0%	98.5%	-1.5%

September 2021 (\$000)	Project Revised Budget September 2021	Incurred Cumulative Costs September 2021
<i>Description</i>	<i>A</i>	<i>B</i>
NE-LCP Owners Team, Admin and EPCM Services	\$633,767	\$626,136
Feasibility Engineering	\$16,865	\$16,552
Environmental & Regulatory Compliance	\$28,230	\$27,482
Aboriginal Affairs	\$51,508	\$52,928
Procurement & Construction	\$4,694,037	\$4,660,695
Commercial & Legal	\$81,978	\$77,016
Contingency	\$36,761	\$0
TOTAL	\$5,543,145	\$5,460,809

II. Labrador Island Transmission Link

September 2021 (\$000)	Project Revised Budget September 2021	Cumulative \$			Cumulative %		
		Plan	Incurred	Variance	Plan	Incurred	Variance
<i>Description</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>C-B</i>	<i>D=B/A</i>	<i>E=C/A</i>	<i>E-D</i>
NE-LCP Owners Team, Admin and EPCM Services	\$396,095	\$395,165	\$386,372	(\$8,793)	99.8%	97.5%	-2.2%
Feasibility Engineering	\$18,679	\$18,679	\$18,679	\$0	100.0%	100.0%	0.0%
Environmental & Regulatory Compliance	\$11,664	\$11,664	\$11,574	(\$90)	100.0%	99.2%	-0.8%
Aboriginal Affairs	\$625	\$625	\$542	(\$83)	100.0%	86.7%	-13.3%
Procurement & Construction	\$3,256,529	\$3,265,615	\$3,193,430	(\$72,185)	100.3%	98.1%	-2.2%
Commercial & Legal	\$29,350	\$29,031	\$27,468	(\$1,563)	98.9%	93.6%	-5.3%
Contingency	\$7,837	\$0	\$0	\$0	0.0%	0.0%	0.0%
TOTAL	\$3,720,778	\$3,720,778	\$3,638,065	(\$82,713)	100.0%	97.8%	-2.2%

September 2021 (\$000)	Project Revised Budget September 2021	Incurred Costs Cumulative September 2021
<i>Description</i>	<i>A</i>	<i>B</i>
NE-LCP Owners Team, Admin and EPCM Services	\$396,095	\$386,372
Feasibility Engineering	\$18,679	\$18,679
Environmental & Regulatory Compliance	\$11,664	\$11,574
Aboriginal Affairs	\$625	\$542
Procurement & Construction	\$3,256,529	\$3,193,430
Commercial & Legal	\$29,350	\$27,468
Contingency	\$7,837	\$0
TOTAL	\$3,720,778	\$3,638,065

III. Labrador Transmission Assets

September 2021 (\$000)	Project Revised Budget September 2021	Cumulative \$			Cumulative %		
		Plan	Incurred	Variance	Plan	Incurred	Variance
<i>Description</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>C-B</i>	<i>D=B/A</i>	<i>E=C/A</i>	<i>E-D</i>
NE-LCP Owners Team, Admin and EPCM Services	\$132,154	\$133,365	\$131,574	(\$1,791)	100.9%	99.6%	-1.4%
Feasibility Engineering	\$299	\$303	\$299	(\$4)	101.3%	100.0%	-1.3%
Environmental & Regulatory Compliance	\$672	\$812	\$672	(\$140)	120.8%	100.0%	-20.8%
Aboriginal Affairs	\$168	\$168	\$168	\$0	100.0%	100.0%	0.0%
Procurement & Construction	\$730,367	\$728,843	\$728,296	(\$547)	99.8%	99.7%	-0.1%
Commercial & Legal	\$8,403	\$9,017	\$7,595	(\$1,422)	107.3%	90.4%	-16.9%
Contingency	\$446	\$0	\$0	\$0	0.0%	0.0%	0.0%
TOTAL	\$872,508	\$872,508	\$868,605	(\$3,903)	100.0%	99.6%	-0.4%

September 2021 (\$000)	Project Revised Budget September 2021	Incurred Costs Cumulative September 2021
<i>Description</i>	<i>A</i>	<i>B</i>
NE-LCP Owners Team, Admin and EPCM Services	\$132,154	\$131,574
Feasibility Engineering	\$299	\$299
Environmental & Regulatory Compliance	\$672	\$672
Aboriginal Affairs	\$168	\$168
Procurement & Construction	\$730,367	\$728,296
Commercial & Legal	\$8,403	\$7,595
Contingency	\$446	\$0
TOTAL	\$872,508	\$868,605

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 (December 2019)

- >99.3% complete

II. Muskrat Falls Generation (December 2019)

- >98.5% complete

III. Labrador Island Transmission Link (December 2019)

- >99.97% complete

IV. Labrador Transmission Assets (December 2019)

- 100% complete

Annex D

Project Milestone Schedule Forecast

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

I. Muskrat Falls Generation

September 2021	Planned Date September 2020	September 2021 Actual/Forecast
Project Sanction	17-Dec-12	Complete
North Spur Works Ready for Diversion	5-Oct-16	Complete
River Diversion Complete	15-Feb-17	Complete
Reservoir Impoundment Complete	4-Sep-19	Complete
Powerhouse Unit 1 Commissioned - Ready for Operation	31-Oct-20	Complete
First Power from Muskrat Falls	22-Sep-20	Complete
Powerhouse Unit 2 Commissioned - Ready for Operation	31-Dec-20	Complete
Powerhouse Unit 3 Commissioned - Ready for Operation	31-May-21	Complete - 14-Aug-21
Powerhouse Unit 4 Commissioned - Ready for Operation	30-Sep-21	11-Nov-21*
Full Power from Muskrat Falls	30-Sep-21	11-Nov-21*
Commissioning Complete - Commissioning Certificate Issued	1-Oct-21	12-Nov-21*
Date Certain	November 2021	November 2021

* Updated forecast from last reporting period

II. Labrador Island Transmission Link

September 2021	Planned Date September 2020	September 2021 Actual/forecast
Project Sanction	17-Dec-12	Complete
SOBI Cable Systems Ready	9-Dec-16	Complete
Soldiers Pond Switchyard Ready to Energize	24-Aug-17	Complete
Ready for Power Transmission (LTA)	27-Apr-18	Complete
Muskrat Falls Converter Station Ready to Energize (Pole 1)	10-May-18	Complete
HVdc Transmission Line Construction Complete	27-Nov-17	Complete
Soldier's Pond Converter Station Ready to Energize (Pole 1)	16-May-18	Complete
1ST Power Transfer (Pole 1)	11-Jun-18	Completion of 45 megawatt heat run
Soldiers Pond Synchronous Condenser Ready for Operation	31-Aug-21	31-October-21
Ready for Power Transmission (Low Load Testing Complete Pole 1)	4-Jun-19	Complete
Muskrat Falls and Soldiers Pond Converter Stations - Bipole Dynamic Testing Complete	30-Sep-21	TBD*
Commissioning Complete - Commissioning Certificate Issued	1-Oct-21	TBD*
Date Certain	November 2021	TBD*

* Updated forecast from last reporting period

III. Labrador Transmission Assets

September 2021	September 2020 Planned Date	September 2021 Actual/Forecast
Project Sanction	17-Dec-12	Complete
HVac Transmission Line Construction Complete	27-Jun-17	Complete: Turnover of HVac TL and all subsystems complete
Churchill Falls Switchyard Ready to Energize	14-Feb-18	Complete
Muskrat Falls Switchyard Ready to Energize	2-Apr-18	Complete
Ready for Power Transmission	27-Apr-18	Complete
Commissioning Complete - Commissioning Certificate Issued	1-Oct-21	12-Nov-21*
Date Certain	November 2021	November 2021

* Updated forecast from last reporting period

End of Report