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July 8, 2021

Board of Commissioners of Public Utilities Prince Charles Building 120 Torbay Road, P.O. Box 21040 St. John's, NL A1A 5B2

Attention: Ms. Cheryl Blundon

Director of Corporate Services & Board Secretary

Dear Ms. Blundon:

Re: Reliability and Resource Adequacy Study Review – Labrador-Island Link Monthly Update – June 2021

On November 21, 2019, the Board of Commissioners of Public Utilities ("Board") requested that Newfoundland and Labrador Hydro ("Hydro") provide further information as a result of the findings in The Liberty Consulting Group's ("Liberty") Eighth Quarterly Monitoring Report on the Integration of Power Supply Facilities to the Island Interconnected System. In its response, Hydro committed to providing Liberty and the Board with a monthly status update regarding the schedule for the Labrador-Island Link ("LIL") software development and testing, updated information in response to the specific requests detailed in the Board's November 21, 2019 correspondence, and other pertinent information with respect to the Muskrat Falls Project. On January 19, 2021, the Board requested Hydro continue monthly reporting and outlined specific information, at a minimum, to be included. Enclosed please find the update as requested.

## 1.0 COVID-19 PANDEMIC EFFECTS ON MUSKRAT FALLS PROJECT EXECUTION

The safety of project workers and their families, the communities in which Hydro operates, and the public is of utmost importance and the company is taking all responsible measures to protect people's health and safety. The Lower Churchill Project ("LCP") and its contractors continue to follow all COVID-19 Health and Safety measures as per the established guidelines.

LCP continues to closely monitor the COVID-19 pandemic and follow advice from medical experts and Public Health guidance, and will implement mitigation measures as necessary to reasonably mitigate the COVID-19 risk to workers and the communities they live in.

<sup>&</sup>lt;sup>1</sup> Hydro's report has been adjusted to reflect the Board's request, with the exception of information related to the LIL monthly energy transfers and Maritime Link availability and exports and imports in the month. Both pieces of information are currently included in Hydro's monthly energy supply report and are not available in a time frame that corresponds with the timing of this report.

# 2.0 LABRADOR-ISLAND LINK

# 2.1 Commissioning Activities

## 2.1.1 Bipole Commissioning

As previously reported, GE Canada ("GE") is progressing through the Final Bipole Software testing stages slower than planned due to increased time required to resolve outstanding punches, which are primarily software bugs. GE has provided a schedule update based on their current status. Completion of Factory Acceptance Testing ("FAT") has moved from July 29, 2021 to August 10, 2021, which represents a 12-day delay. Table 1 in Section 4.0 has been updated to reflect this schedule delay.

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With respect to the valve hall beam replacement work, quality issues that originally caused GE to reject the first batch of beams from their supplier have been resolved. Beam shipment from the UK to Canada will continue over the next few weeks; all beams are expected to be delivered by the end of July 2021. LIL is currently offline as work is ongoing in each pole. Muskrat Falls Pole 2 work is complete and Soldiers Pond Pole 2 work is in progress with a planned completion date of July 21, 2021. Pole 1 replacement work is scheduled to be complete by August 15, 2021. The current plan is to operate LIL in monopole mode after completion of Pole 2 work in late July 2021, followed by bipole operation after Pole 1 beams are replaced in mid-August 2021.

# 2.1.2 Soldiers Pond Synchronous Condensers

GE Power is continuing with completions and commissioning work at the Soldiers Pond Synchronous Condenser Site. SC3<sup>2</sup> Trial Operations was complete on May 25, 2021. SC2<sup>3</sup> Trial Operations was complete on June 24, 2021. GE is required to conduct a series of field tests on SC2 and SC3 after trial operations; these tests are underway and are scheduled to be complete by the end of July 2021, after which both units will be available for operation.

Reassembly of SC1<sup>4</sup> is complete. Static commissioning is in progress and dynamic commissioning is scheduled to start in early August 2021. GE Power's schedule for SC1 complete has moved from September 2021 to October 2021. The delay is due to GE Power's requirement to conduct field tests not originally included in their schedule.

## 2.2 Operations

# 2.2.1 Labrador-Island Link Damage

Root Cause Investigations into the electrode line and transmission line failures are complete. Reports of the incidents were finalized in May 2021 and provided to stakeholders. There has been no further damage to report.

## 2.2.2 Outages

There were no system outages during the reporting period.

<sup>&</sup>lt;sup>2</sup> Synchronous Condenser 3 ("SC3").

<sup>&</sup>lt;sup>3</sup> Synchronous Condenser 2 ("SC2").

<sup>&</sup>lt;sup>4</sup> Synchronous Condenser 1 ("SC1").

#### 3.0 MUSKRAT FALLS GENERATION

# 3.1 Commissioning Activities

#### 3.1.1 Unit 1

Unit 1 was released for service and transferred to operations on December 22, 2020.

## 3.1.2 Unit 2

Unit 2 release for service was achieved on June 10, 2021, and the unit was accepted by Operations on June 12, 2021, with an agreed punchlist. Completion of outstanding punches is tentatively scheduled with Operations for August 2021.

#### 3.1.3 Unit 3

The 150% overspeed test is complete and post overspeed inspections have been completed with no issues identified. Preparations to resume commissioning are under way, and commissioning is expected to resume next week. Release for service expected in late July 2021.

## 3.1.4 Unit 4

Installation activities are nearing completion. Bulkhead removal is now complete and static commissioning activities are ongoing. Release for service is expected in September 2021.

# 3.2 Operations

As previously noted, Andritz has identified a design issue with the bolts between the inner and intermediate head covers for the generating units. Monthly head cover and weld inspections continue to be performed on Unit 1. A planned outage will be required to address the Unit 1 inner/intermediate head cover bolts and stator bar replacement. Timing of inspections and required modifications will be scheduled with operations. This work is scheduled for later this year.

#### 4.0 MUSKRAT FALLS PROJECT OVERALL SCHEDULE

The current schedule for the Final Bipole software is outlined in Table 1. As noted in Section 2.1.1, GE has advised that the FAT Complete date has moved to August 10, 2021. LCP has revised Table 1 to reflect the 12-day delay to the subsequent milestone dates. Upon receipt of a detailed schedule from GE, LCP will review and update its forecast, if required. Trial Operations is complete after 30 consecutive days of power transfer without a trip attributed to the HVdc system. LCP has an allowance of 60 days to complete Final Bipole Trial Operations. GE has included 90 days in its schedule to complete Final Bipole Trial Operations, as per its contractual requirements.

Table 1: LIL Bipole Software Commissioning Schedule

# **Final Bipole Software**

|   | GE Schedule        | LCP Schedule       |
|---|--------------------|--------------------|
| FAT Complete                                    | August 10, 2021    | August 10, 2021    |
| Dynamic Commissioning: Complete                 | September 19, 2021 | September 26, 2021 |
| Trial Operations: Start (at available power)    | September 19, 2021 | September 27, 2021 |
| Trial Operations: Complete (at available power) | December 21, 2021  | November 26, 2021  |

The forecast completion schedule for the Muskrat Falls Generating Units outlined in Table 2 has been provided to LCP by Andritz.

**Table 2: Muskrat Falls Generation Commissioning Schedule** 

| Generating Unit | Completion of Commissioning and Released for Service | Status               |
|-----------------|--|----------------------|
| Unit 1          | December 22, 2020                                    | Released for service |
| Unit 2          | May 31, 2021   | Released for service |
| Unit 3          | July 31, 2021  |                      |
| Unit 4          | September 30, 2021                                   |                      |

Based on the schedules presented above, the overall Muskrat Falls Project completion date is currently November 26, 2021.

# 5.0 UPDATE ON CF(L)CO<sup>5</sup> MULTI-PARTY POOLING AGREEMENT AND HYDRO-QUÉBEC INTERCONNECTION OPERATORS AGREEMENT

As committed through follow-up from Hydro's *Reliability and Resource Adequacy Review* technical conference of June 9, 2021, the following provides stakeholders with an update on the Multi-Party Pooling Agreement ("MPPA") and Interconnection Operators Agreement ("IOA") negotiations.

As of April 2021, the remaining principles in contention for the IOA were resolved to the satisfaction of both Hydro and Hydro-Québec ("HQ"). As a result, the MPPA was conditionally approved at the May 2021 meeting of the CF(L)Co Board, conditional on the completion of the NLSO<sup>6</sup>/HQ IOA. A completion date for finalizing the details of the IOA has been set for January 2022 and weekly stakeholder meetings have been established to work through the IOA details. Over the last month, weekly discussions continued and positive progress was made regarding the IOA negotiations between the NLSO and HQ (with CFLCo as an observer). At the current time no material hurdles are envisioned in the completion of the IOA on the prescribed timeline.

<sup>&</sup>lt;sup>5</sup> Churchill Falls (Labrador) Corporation ("CF(L)Co").

<sup>&</sup>lt;sup>6</sup> Newfoundland and Labrador System Operator ("NLSO").

If you have any questions or comments, please contact the undersigned.

Yours truly,

## **NEWFOUNDLAND AND LABRADOR HYDRO**

Man of the

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Vice President, General Counsel, Corporate Secretary & Commercial MSL/sk

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