

November 4, 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 – October 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.<sup>1</sup> Enclosed please find the update as requested.

The Lower Churchill Project (“LCP”) and its contractors continue to follow all COVID-19 Health and Safety measures as per the established guidelines. The LCP will continue to closely monitor the COVID-19 pandemic and follow advice from medical experts and Public Health guidance.

## **1.0 LABRADOR-ISLAND LINK**

### **1.1 Commissioning Activities**

#### **1.1.1 Bipole Commissioning**

GE Canada (“GE”) has incorporated all required functions into the Bipole software, now referred to as the Full Function Bipole (“FFB”) software. GE has conducted Factory System Tests and Factory Acceptance Tests (“FAT”) of the FFB software. During testing, GE discovered bugs in the software that require resolution. GE software developers have been working for the past several weeks to clear the remaining list of critical bugs that have prevented the start of Dynamic Commissioning and subsequent

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<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.

completion of Trial Operations. GE provided an updated schedule for the resolution of critical bugs and commissioning activities; key milestones are provided in Table 1.

### **1.1.2 Soldiers Pond Synchronous Condensers**

GE Power has completed Dynamic Commissioning, Trial Operations, and special tests for all three synchronous condenser (“SC”) units at the Soldiers Pond SC Site.

The units are in operation, as needed, to support the LIL power transfer. The LCP is working with Power Supply on turnover of the units.

## **1.2 Operations**

As previously reported, the LIL was taken offline on September 25, 2021 to allow GE to complete a week of static checks with the current version of FFB software in order to identify any site issues that need to be resolved in the next version of software. The LIL remained offline until October 15, 2021, when a second unit at Muskrat Falls came back in service (to operate LIL, a minimum of two units online at Muskrat Falls are needed). The LIL has been energized intermittently since October 15, 2021, to allow GE conduct a series of dynamic commissioning tests on the current version of FFB software.

## **1.3 Outages**

There were no system outages during the reporting period.

## **2.0 MUSKRAT FALLS GENERATION**

### **2.1 Commissioning Activities**

#### **2.1.1 Unit 4**

Unit 4 commissioning activities are ongoing. Overspeed testing and post overspeed inspections are complete. Grid sync is planned to occur in the coming days, followed by commencement of on-load testing. The forecast for Release for Service is currently mid-November 2021.

### **2.2 Operations**

#### **2.2.1 Unit 1**

Planned maintenance activities and cleanup of Unit 1 after the recent oil release from the turbine were completed in early October 2021. During water-up and restart activities in mid-October 2021, the Unit 1 pit was flooded. A root cause investigation into the incident is ongoing; it is expected that Unit 1 will be offline until mid-November 2021 to complete cleanup and remediation activities.

#### **2.2.2 Unit 2**

Following a preliminary investigation into a vibration observed in Unit 2, Andritz has advised that the unit can be operated at constant power output in the interim. Unit 2 was returned to service on October 14, 2021 and has run in a restricted but satisfactory manner since then. Andritz is continuing to monitor the performance of the unit and will provide a root cause analysis. Andritz will confirm based on the

root cause investigation if the issue is unique to Unit 2 or common to all units. Planning is ongoing with Andritz and Operations to complete remaining punch list items.

### 2.2.3 Unit 3

Unit 3 was released for service and transferred to Operations on August 14, 2021. The Unit is currently operating. Planning is ongoing with Andritz and Operations to complete remaining punch list items.

## 3.0 MUSKRAT FALLS PROJECT OVERALL SCHEDULE

GE's schedule for commissioning of the FFB software is provided in Table 1. GE has communicated that they are working to achieve the milestones as per the schedule provided; however, LCP considers GE's schedule to be optimistic based on their performance to date and therefore considered it prudent for planning purposes to provide an assessment of a possible completions date. LCP reviewed GE's past performance and historical trends and assessed that March 2022 is a reasonable timeframe to expect commissioning to be achieved. GE maintains that they can complete the FFB commissioning by December 31, 2021. LCP continues to work with GE towards that schedule.

The LIL commissioning progress and timelines associated with the reliable integration of the Muskrat Falls Project assets continues to be closely monitored to determine whether there will be any impact to the current plan for the Holyrood Thermal Generating Station.

**Table 1: LIL FFB Software Commissioning Schedule**

Milestones	GE Schedule	LCP Assess Possible Outcomes
FAT: Complete	November 11, 2021	Mid-November 2021
Dynamic Commissioning: Complete	November 28, 2021	Late January 2022
Trial Operations: Start (at available power)	December 1, 2021	Late January 2022
Trial Operations: Complete <sup>2</sup>	December 31, 2021	Late March 2022

The forecast completion schedule for the Muskrat Falls Generating Units outlined in Table 2 has been provided to the 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	June 12, 2021	Released for Service
Unit 3	August 14, 2021	Released for Service
Unit 4	Mid-November 2021	

<sup>2</sup> Trial Operations is complete after 30 consecutive days of power transfer without a trip attributed to the HVdc system.

#### 4.0 CF(L)CO<sup>3</sup> MULTI-PARTY POOLING AGREEMENT AND HYDRO-QUÉBEC IOA<sup>4</sup>

As of October 2021, weekly discussions to progress the IOA continued between the Newfoundland and Labrador System Operator and Hydro-Québec (with CF(L)Co as an observer). The issue pertaining to which entities will be party to the agreement is under review. Overall, the target date to complete the IOA remains on track for January 2022.

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

Yours truly,

#### NEWFOUNDLAND AND LABRADOR HYDRO



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<sup>3</sup> Churchill Falls (Labrador) Corporation (“CF(L)Co”).

<sup>4</sup> Interconnection Operators Agreement (“IOA”).