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December 20, 2019

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: Investigation and Hearing into Supply Issues and Power Outages on the Island Interconnected System - Phase Two - The Liberty Consulting Group Eighth Quarterly Monitoring Report on the Integration of Power Supply Facilities to the Island Interconnected System - Further Information – Schedule Update

On November 15, 2019, The Liberty Consulting Group ("Liberty") filed its Eighth Quarterly Monitoring Report on the Integration of Power Supply Facilities to the Island Interconnected System ("Liberty Report"). 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 Report, with established deadlines for provision of the information. Hydro filed the first of two updates on November 29, 2019. Within that update, Hydro responded to Board Request #2, updating the Board on the current Labrador-Island Link ("LIL") commissioning schedule, shifting the software delivery schedule from December 20, 2019 to January 19, 2020. Hydro also committed to providing a monthly update to the Board, beginning January 14, 2020, to advise of the status of this schedule and the reasons for and implications of any changes to the schedule. Hydro is aware of new information and is providing this interim update regarding both the LIL and Muskrat Falls Unit 1 schedule changes.

## **LIL Progress Update**

During the November reporting period, Nalcor and GE Grid ("GE") finalized the terms of their agreement. As reported in the November 29, 2019 letter to the Board, the agreed milestone date for completion of Interim Software Factory Acceptance Test ("FAT") moved from December 20, 2019 to January 19, 2020. All other milestone dates in the agreement remained the same.

During the most recent reporting period, GE's progress was slower than planned. Software bug generation and resolution has prevented GE from passing the Integration System Test phase and moving on to the Factory System Test phase. Due to GE's rate of progress, Muskrat Falls Project management

<sup>&</sup>lt;sup>1</sup> Board Request #2: The delivery of interim bipole software has been further delayed from October to December 2019 with delivery of final software scheduled for delivery in June 2020. Please confirm by November 29, 2019 whether this is still the current schedule for delivery of the software. The Board also requires that Hydro immediately advise of any future changes to this schedule, the reason for the change and the implications of any delay for delivery of power and energy to the IIS over the LIL.

have revised the Integrated Project Schedule ("IPS") to reflect the schedule change. The most recent IPS forecasts changes are detailed in Table 1.

**Table 1: Updated IPS Schedule** 

GE Milestone	November 29, 2019 Update	December 20, 2019 Update
Interim Software – Limited Functionality		
FAT complete; Interim Software	January 19, 2020	February 2, 2020
to Site		
Dyn Com: Low Load Testing	January 20-February 29, 2020	March 3–March 15, 2020
Dyn Com: Trial Operations at	March 1–May 28, 2020 <sup>2</sup>	March 16–June 12, 2020
Low Load		
Final Software – Full Functionality		
Final Software to site	June 1, 2020	June 9, 2020
Dyn Com complete at available	June 30, 2020	July 15, 2020
power		
High Power Testing	July 1, 2020 <sup>3</sup>	July 16, 2020

The time frame for Low Load Dynamic Testing is now scheduled to take place in an approximate two week period in March 2020. An early version of interim software was delivered to site to facilitate some early commissioning in an effort to shorten the Low Load Dynamic Testing previously reported. Therefore, in the current schedule GE has shortened the Low Load Dynamic Testing time frame. While the planned activity dates are monitored, it is expected there will be some movement in actual activity durations as the project progresses. Software development progress continues to be monitored by the Independent Third Party and Muskrat Falls Project management resources embedded in GE's Stafford facility, as well as from the Muskrat Falls Project home office. Muskrat Falls Project management will continue to work with GE to mitigate further slippage to the milestone dates; however, schedule risk to software delivery remains high.

## **Muskrat Falls Unit 1 Update**

In relation to the Muskrat Falls Hydroelectric Generating Facility, Andritz Hydro is responsible for the Turbines and Generators contract. Commissioning of Unit #1 is progressing. Andritz Hydro had planned to achieve the Ready to Turn milestone for Unit #1 prior to the end of 2019, with in service to follow in January 2020. Andritz Hydro was unable to achieve the Ready to Turn milestone prior to its annual holiday shutdown at the Muskrat Falls Project Site.

The Ready to Turn milestone is now planned to be achieved in January 2020. Commercial operation from Unit #1 is anticipated in mid-March 2020.

<sup>&</sup>lt;sup>2</sup> Trial operations are complete after 30 days of uninterrupted power transfer within the 90 day window. Potential for trial operations to end early if successful.

<sup>&</sup>lt;sup>3</sup> Based on availability of power from Muskrat Falls and Churchill Falls hydraulic generation facilities, and Newfoundland and Labrador System Operator acceptance.

Should you have any questions, please contact the undersigned.

Yours truly,

## **NEWFOUNDLAND AND LABRADOR HYDRO**

Michael S. Ladha

Legal Counsel & Assistant Corporate Secretary MSL/sk

cc: Newfoundland Power

mba

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Mr. Shawn Kinsella