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October 6, 2022

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 – September 2022*

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.¹ Enclosed please find the update as requested.

1.0 LABRADOR-ISLAND LINK

1.1 Commissioning Activities

1.1.1 Bipole Commissioning

As previously reported, Dynamic Commissioning started on August 22, 2022 and involved testing the LIL up to 475 MW. Testing was generally successful and issues identified during testing have been addressed. Issues included an equipment failure and a requirement to adjust LIL ramp rate parameters in the software. The equipment issue involved the mechanical failure of a ground switch. This was rectified and verified in subsequent testing. Issues with inconsistent pole ramp rates were also discovered during testing. Ramp rate parameters were tuned in the software and were validated during further testing. The completion of testing at 475 MW is currently scheduled for mid-October.

On the basis of the completed tests and resolution of the issues that were identified, Hydro and GE Canada (“GE”) are preparing for Trial Operations in the coming days. This period will require the operation of the LIL for 30 consecutive days without a trip attributed to the HVdc² system.

¹ 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 High-voltage direct current (“HVdc”).

Testing the LIL at power levels greater than 675 MW will require cold weather and elevated loads, which is anticipated to occur later this fall (likely November time frame), potentially after the Trial Operations period has concluded. Testing at this level will provide verification of the software functionality required for operation of the LIL up to the full rated capacity of 900 MW.

1.1.2 Soldiers Pond Synchronous Condensers

Synchronous Condenser ("SC") Unit 1 testing is ongoing. GE Power's intended solution to address the bearing tilt issue observed in 2021 has been unsuccessful to date, and as a result, GE Power has moved the Return to Service to December 2022 to accommodate additional testing. SC1 synchronization to the grid is planned for later this month. SC2 and SC3 remain online and are operating satisfactorily. Two synchronous condensers are required to allow the LIL to operate, so the outage to SC1, while of serious concern to Hydro because of the loss of redundancy, does not affect LIL operation. Monthly meetings between the CEOs of Hydro and GE Power are ongoing to ensure this issue is resolved to satisfaction.

1.2 Operations

The LIL operated in bipole mode at various levels, as determined by the Newfoundland and Labrador System Operator, throughout the month of September 2022.

1.3 Outages

There were no LIL-related customer outages to report for September 2022.

2.0 MUSKRAT FALLS GENERATION

2.1 Operations

Muskrat Falls Units 2 and 4 are currently offline for planned maintenance. Units 1 and 3 are in operation.

3.0 LABRADOR-ISLAND LINK SCHEDULE

As noted above, the decision to proceed to Trial Operations is expected in the coming days. Once a determination is made, GE will enter into the Trial Operations period; this period will be deemed successful after 30 consecutive days of operation without a trip attributed to the HVdc system.

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

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



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Vice President, Chief Legal Officer & Corporate Secretary
MSL/kd

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