

July 6, 2023

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

Attention: Cheryl Blundon
Director of Corporate Services & Board Secretary

Re: *Reliability and Resource Adequacy Study Review – Labrador-Island Link Monthly Update – June 2023*

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.¹ 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.² On January 19, 2021, the Board requested Hydro continue monthly reporting and outlined specific information, at a minimum, to be included.^{3,4} Enclosed please find the update as requested.

1.0 LABRADOR-ISLAND LINK

1.1 Commissioning Activities

1.1.1 Bipole Commissioning

Hydro’s May 2023 LIL monthly update⁵ noted that the LIL has now been officially commissioned as of April 14, 2023, in accordance with the project financing and revenue agreements.

¹ “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 and Continued Quarterly Monitoring Reports in 2020,” Board of Commissioners of Public Utilities, November 21, 2019.

² “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 - Hydro’s Comments,” Newfoundland and Labrador Hydro, November 29, 2019, p. 1.

³ “Newfoundland and Labrador Hydro - Reliability and Resource Adequacy Study Review - Information Required for Monthly Reports,” Board of Commissioners of Public Utilities, January 19, 2021.

⁴ Hydro’s report has been adjusted to reflect the Board’s request, with the exception of information related to the LIL monthly energy transfers as well as Maritime Link availability, 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 timeframe that corresponds with the timing of this report.

⁵ “*Reliability and Resource Adequacy Study Review – Labrador-Island Link Monthly Update – May 2023*,” Newfoundland and Labrador Hydro, June 8, 2023.

Hydro will continue to address the remaining items that were noted in punchlist reports submitted with the commissioning certificate. In accordance with the contract, GE will deliver a final version of the software including the resolution of all outstanding punchlist items in the coming months.

1.1.2 Soldiers Pond Synchronous Condensers

Since the May 2023 LIL monthly update, the synchronous condensers have been in operation at all times other than for scheduled maintenance and completion of punchlist work, and have operated successfully through all system disturbances described in Sections 1.2 and 1.3 of this document. One unplanned outage occurred, as described below:

- Synchronous Condenser #1 was online until June 14, 2023, when it was taken out of service to investigate an alarm. The alarm was determined to be caused by a sensor malfunction and the synchronous condenser was returned to service on June 23, 2023. It was also taken offline for brushgear repairs from June 26–28, 2023.

Hydro will continue to address the remaining items that were noted in punchlist reports submitted with the commissioning certificate and outstanding warranty claims. Monthly meetings between the CEOs of Hydro and GE Power are ongoing to ensure all outstanding issues are resolved to satisfaction.

1.2 Operations

The LIL has been operating at various power transfer levels during June 2023 and in total, 189.6 GWh were delivered over the LIL. Hydro continues to ensure the availability of generation at the Holyrood Thermal Generating Station for operation during colder months to ensure reliable supply of power for customers.⁶ Energy and capacity delivered over the LIL are used to minimize thermal generation whenever possible. The following is an update on the LIL performance since the May 2023 LIL monthly update:⁷

- On June 14, 2023, and June 18, 2023, the LIL experienced a trip on Pole 2 and Pole 1, respectively, while returning the alternate pole to service due to transformer inrush at Soldiers Pond Terminal Station. Both poles were made available for service within a day of the respective trips. This resulted in an interruption of flow over the Maritime Link in both events, but did not impact domestic customers. An investigation into the cause and mitigation of the transformer inrush is underway.
- On June 23, 2023 and June 26, 2023, there was a loss of telecommunications between the Muskrat Falls Converter Station and Soldiers Pond Converter Station. For each event, LIL flows were curtailed in accordance with operating instructions. Telecommunications system were restored on the same day. There was no impact to customers as a result of the outages.

1.3 Outages

There was an outage to customers in Labrador West on June 1, 2023 and a second outage to Labrador West and Labrador East on June 26, 2023 as a result of the islanding of the Labrador Interconnection

⁶ Active power generation at Holyrood ceased for the season on May 18, 2023. The plant is currently operating with Unit 3 online as a synchronous condenser.

⁷ Investigations into these events are ongoing.

following the loss of the full 735 kV interconnection to Hydro-Québec.⁸ Given the severity of the voltage and frequency deviations resulting from the events, trips were experienced on the LIL, Churchill Falls units, Muskrat Falls generating units, and Labrador alternating current (“ac”) transmission lines. This resulted in outages to customers on the Labrador Interconnected System. Early investigations indicate that all protection systems for the LIL, Labrador generation, and ac transmission assets performed as designed.

2.0 MUSKRAT FALLS GENERATION

2.1 Operations

Since the filing of the May 2023 LIL monthly update, the units at the Muskrat Falls Hydroelectric Generating Facility were available for service at all times other than for scheduled service outages, with the exception of the following system events:

- On June 1, 2023, Unit 1 tripped while being returned to service, and following an inspection was made available for service on June 2, 2023.
- Two trips, one on June 1, 2023 and the second on June 26, 2023 as noted in Section 1.3.

3.0 LABRADOR-ISLAND LINK SCHEDULE

As noted in Section 1.1.1, the LIL commissioning has been achieved in accordance with both the project finance agreement and revenue agreements.

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
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⁸ On June 1, 2023 and June 26, 2023 there were two separate trips on the three 735 kV transmission lines that connect Churchill Falls to the Hydro-Québec Interconnection as a result of a forest fire in the right of way.