

July 4, 2024

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

Attention: Jo-Anne Galarneau  
Executive Director and Board Secretary

**Re: *Reliability and Resource Adequacy Study Review – Labrador-Island Link Update for the Quarter Ended June 30, 2024***

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. Hydro committed to providing Liberty and the Board with a monthly status update reflecting specific requests by the Board and other pertinent information with respect to the Muskrat Falls Project.<sup>1,2</sup> On July 25, 2023, the Board directed Hydro to reduce the frequency of reporting to quarterly from monthly.

Hydro has recently integrated reporting on the LIL and Muskrat Falls assets into its regular outage and operational reporting, including the Daily Supply and Demand, Winter Readiness, Quarterly Report on Performance of Generating Units (“Rolling 12”) and other reports to the Board.

Enclosed please find the update, as requested.

## **1.0 Labrador-Island Link**

### **1.1 Commissioning Activities**

#### **1.1.1 Bipole Commissioning**

As previously reported, the LIL was officially commissioned on April 14, 2023, in accordance with the project financing and revenue agreements. Since commissioning, the LIL has been in service and successfully providing power to the provincial grid.

All software functionality required for operation up to 900 MW was proven and accepted as satisfactory during pole overload tests in winter 2023 prior to April 2023 commissioning; however, as committed, controlled testing at the highest power levels will be performed prior to operation in this range when

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<sup>1</sup> “Newfoundland and Labrador Hydro – Reliability and Resource Adequacy Study Review – Information Required for Monthly Reports,” Board of Commissioners of Public Utilities, January 19, 2021.

<sup>2</sup> Hydro’s report has been adjusted to reflect the Board’s requests, with the exception of information related to the Labrador-Island Link (“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.

system conditions permit. Hydro continues to plan for the execution of the 900 MW pole overload test in the fall of 2024. As previously reported, the following are prerequisite conditions for the test to occur:

- Satisfactory system conditions are present, including both those in Newfoundland and Labrador, where a high system load can be reasonably expected to occur, and neighbouring jurisdictions;
- Successful coordination with all relevant neighbouring system operators is attained; and
- Identification of risks and implementation of all necessary risk mitigation actions are in place.

Since the last update, the LIL has been operating at various power transfer levels as required by the system. In total, approximately 599 GWh were delivered over the LIL from April 1 to June 30, 2024. Hydro continues to ensure the availability of generation at the Holyrood Thermal Generating Station; however, energy and capacity delivered over the LIL are used to minimize thermal generation whenever possible.

As part of the *Reliability and Resource Adequacy Study Review* proceeding, Hydro established the assumption that the equivalent forced outage rate (“EqFOR”) for the LIL over the long term would be in the range of 1% to 10%. As reported in its most recent Rolling 12 report, despite expectations of unavailability being at the higher end of this range early in its commissioned operation, the EqFOR for the LIL from March 31, 2023 to March 31, 2024, was approximately 2.7%.<sup>3</sup> This is well within the assumed long-term range.

As discussed in Hydro’s March 2024 Winter Readiness Update,<sup>4</sup> mitigations to prevent control system component sensitivity to cable switching transients at the LIL Transition Compound were completed in May. These mitigations resulted in improvements; however additional work is required and Cable 3 remains out of service.<sup>5</sup> A grounding study for the transition compounds is being finalized which identified additional work required to mitigate the cable switching transients. These mitigations are a pre-requisite to execution of the 900 MW high-power test.

As previously reported, all outstanding punchlist and deferred items have been resolved. The final software version for the LIL is scheduled to be installed and commissioned in late July including the conclusion of cable switching transient mitigations described above.

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

Since the last LIL update, the Soldiers Pond Synchronous Condensers have been in operation at all times, other than for scheduled maintenance and punchlist items, with exception of one trip on Synchronous Condenser 2 and one trip on Synchronous Condenser 3, all of which were returned to service the same day. There was no customer impact as a result of these trips.

Hydro will include an update on the total number of hours of operation for the Soldiers Pond Synchronous Condensers for the twelve months ended June 30, 2024, in its next Rolling 12 report.

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<sup>3</sup> Hydro will provide an update on EqFOR for the twelve months ended June 30, 2024 in its next Rolling 12 report due to the Board on July 31, 2024.

<sup>4</sup> “*Reliability and Resource Adequacy Study Review – 2023–2024 Winter Readiness Planning Report – Update – March 2024*,” Newfoundland and Labrador Hydro, March 25, 2024.

<sup>5</sup> With cable switching disabled, pole overloads (individual pole operation above 450 MW) are limited to five minutes, as only one cable is in service per pole. To provide reliable service, Hydro has limited the LIL bipole capacity to 450 MW for normal operation; however, operation up to 700 MW is available should the system require operation at that level.

## 1.2 Operations

During the second quarter of 2024, the LIL experienced six pole trips; these trips did not result in any customer impact as the other pole was in service and the LIL functioned as designed and expected, demonstrated with power flow from the tripped pole immediately moving to the pole still in service. The average return-to-service time for the trips was less than seven hours.

Hydro will provide an update on the performance of the LIL for the twelve months ended June 30, 2024, in its next Rolling 12 report, including detail on any outages that occurred within the period that contributed materially to forced outage rates exceeding Hydro's resource adequacy base planning analysis value.

## 1.3 Outages

As noted in Section 1.2, there were no customer outages to report in the current quarter.

## 2.0 Muskrat Falls Generation

### 2.1 Operations

As reported in its most recent Rolling 12 report, the Muskrat Falls Hydroelectric Generating Station ("Muskrat Falls") total plant DAFOR<sup>6</sup> performance through the end of the first quarter of 2024 was 0.08%, which was significantly better than the Electricity Canada average of 5.70% for similar units across Canada.

Hydro will include an update on the performance of the Muskrat Falls generation for the twelve months ended June 30, 2024, in its next Rolling 12 report.

## 3.0 Labrador-Island Link Schedule

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

As Hydro has integrated reporting on these non-regulated assets into its regular outage and operational reporting, Hydro respectfully requests that Board discontinue the requirement for this quarterly update. The requirements originally outlined by the Board have been satisfied, given that Muskrat Falls and the LIL have now been commissioned. Hydro will provide an update to the Board when the 900 MW test has been completed.

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

Yours truly,

**NEWFOUNDLAND AND LABRADOR HYDRO**



Michael S. Ladha, KC  
Vice President, Chief Legal Officer & Corporate Secretary  
MSL/kd

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<sup>6</sup> Derated Adjusted Forced Outage Rate ("DAFOR").

Jo-Anne Galarneau  
Board of Commissioners of Public Utilities

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