

January 10, 2025

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 December 31, 2024*

In 2019, Newfoundland and Labrador Hydro (“Hydro”) committed to providing the Board of Commissioners of Public Utilities (“Board”) and its consultant with a monthly status update reflecting specific requests by the Board and other pertinent information with respect to the Muskrat Falls Project.^{1, 2} Hydro’s update is as follows.

Since commissioning in April 2023, the Labrador-Island Link (“LIL”) has been in service and successfully providing power to the provincial grid. Since the last update, the LIL has been operating at various power transfer levels up to 620 MW, as required by the system. In total, approximately 904 GWh were delivered over the LIL from October 1, 2024 to December 31, 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 reported in Hydro’s most recent Quarterly Report on Asset Performance in Support of Resource Adequacy (“Rolling 12”),³ despite expectations of unavailability being at the higher end of this range early in its commissioned operation, the equivalent forced outage rate (“EqFOR”) for the LIL from October 1, 2023 to September 30, 2024, was approximately 3.28%. This is well within the assumed long-term range of 1% to 10%. Hydro will provide an update on EqFOR for the twelve months ended December 31, 2024, in its next Rolling 12 report due to the Board on January 31, 2025.

1.0 Labrador-Island Link

1.1 900 MW Test and Software

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 the April 2023 commissioning; however, as committed, controlled testing at the highest power levels will be performed prior to operation in this range when system conditions permit. As reported in its final 2024–2025 Winter Readiness Report, in consultation with neighbouring jurisdictions, Hydro postponed the 900 MW test until later in the

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

² On July 25, 2023, the Board directed Hydro to reduce the frequency of reporting to quarterly from monthly.

³ “Quarterly Report on Asset Performance in Support of Resource Adequacy for the Twelve Months Ended September 30, 2024,” Newfoundland and Labrador Hydro, October 31, 2024.

winter.⁴ The system is already well-positioned for the winter with the LIL available for reliable operation up to 700 MW, as the previously reported 450 MW restriction was lifted on November 8, 2024.

Planning for the 900 MW test is underway. 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.

As reported in Hydro's final 2024–2025 Winter Readiness Report, new equipment was successfully installed to mitigate cable switching transients at the LIL Transition Compounds in mid-October 2024. Subsequent testing confirmed that the modifications have addressed the transients; as such, this issue no longer restricts LIL dispatch levels or the completion of the 900 MW test.

New LIL software was commissioned in mid-October. This software, as with the previous version, allows for full operation of the LIL up to 900 MW. Through dynamic commissioning, non-critical software-related items were identified. The software to address these non-critical issues successfully passed Factory Acceptance Testing in November and is anticipated to be installed in spring 2025 once system conditions allow.

1.2 Operations

During the fourth quarter of 2024, the LIL experienced one pole trip event on October 18, 2024, during a planned 500MW trip test of Pole 1 and Pole 2. The Pole 2 trip test was conducted first and operated as intended. When the Pole 1 emergency stop was activated, both poles tripped due to a protection setting at Soldiers Pond. This caused approximately 150 MW of underfrequency load shedding for Newfoundland Power Inc. ("Newfoundland Power") and 15 MW for Corner Brook Pulp and Paper Limited ("CBPP"). Newfoundland Power customers were restored within less than one hour, and CBPP were restored later that day in agreement with the customer.

The protection setting was adjusted following an investigation and the 500 MW trip test was successfully executed on both poles on November 25, 2024.

2.0 Soldiers Pond Synchronous Condensers

Outside of planned outages, the Soldiers Pond Synchronous Condensers have been in operation at all times since the last LIL update, with the exception of two trips on Synchronous Condenser 3, which was returned to service within a two-hour window each time. 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 December 31, 2024, in its next Rolling 12 report.

3.0 Muskrat Falls Generation

As reported in its most recent Rolling 12 report, the Muskrat Falls Hydroelectric Generating Station ("Muskrat Falls") total plant DAFOR⁵ performance through the end of the third quarter of 2024 was

⁴ "Reliability and Resource Adequacy Study Review – 2024–2025 Winter Readiness Planning Report – Final Report," Newfoundland and Labrador Hydro, December 10, 2024, p. i.

⁵ Derated Adjusted Forced Outage Rate ("DAFOR").


0.48%, 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 December 31, 2024, in its next Rolling 12 report.

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

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



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