

November 18, 2021

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: Labrador East Reliability Plan Update

On October 28, 2021, Newfoundland and Labrador Hydro (“Hydro”) filed correspondence with the Board of Commissioners of Public Utilities (“Board”) indicating that Hydro will continue to supply Labrador East using the 138 kV interconnection to Churchill Falls via transmission line L1301/1302 for the upcoming winter season (2021–2022). Hydro had previously anticipated that the interconnection between Muskrat Falls and Happy Valley-Goose Bay would be completed in 2021; however, the Muskrat Falls generating units have not been available to the extent required to support the interconnected system in Labrador East.

With a focus on the provision of reliable service, Hydro has implemented a reliability plan for Labrador East during the 2021–2022 winter season similar to that which was in place during the 2020–2021 winter season. In its October 28, 2021 correspondence, Hydro committed to providing monthly updates to the Board on the status of its winter reliability plan in Labrador East beginning in November 2021 and carrying through to March 2022.

The forecasted P50 peak load for Labrador East this winter is 78.95 MW and the forecasted P90 peak load is 80.35 MW. The transfer capacity on the transmission system remains at 76.0 MW and an additional approximately 30 MW are available from the Happy Valley Gas Turbine and North Side Diesel Plant for peak loading conditions.¹

Hydro’s November 2021 update on the components of its Labrador East Reliability Plan follows.

i. Happy Valley Gas Turbine

Status: Ongoing

Update: The gas turbine was operated in generation mode on October 29, 2021 with no issues. All winter readiness activities are complete and the Annual Work Plan (“AWP”) is on target for completion.

¹ In advance of the 2021–2022 winter season, Hydro performed modifications to the fuel system at the North Side Diesel Plant, resulting in an increase in capacity from 4 MW to 5 MW.

ii. North Side Diesel Plant

Status: Complete

Update: The North Side Diesel Plant was operated on October 29, 2021 with no issues. The AWP is complete, including all winter readiness activities.

iii. L1301/L1302 Inspections

Status: Ongoing

Update: Hydro's most recent helicopter inspection of L1301/L1302 was completed on November 18, 2021 with no deficiencies identified. The next planned inspection is scheduled for December 14, 2021.

iv. Interruptible Service Agreement

Status: Ongoing

Update: Hydro filed an application with the Board on November 1, 2021 for approval of an interruptible service agreement with Labrador Lynx Limited which provides up to 5.5 MW of interruptible load each month during the term of the agreement.² No comments were received from parties during the review period and Hydro is currently awaiting a Board Order.

v. Operations Protocol

Status: Complete

Update: Hydro has reviewed and confirmed the following procedures to ensure operations with acceptable voltage and protocols for peak conditions during the upcoming winter season:

1. Sectionalization procedures for the Happy Valley distribution system;
2. Labrador East 25 kV Bus Regulation procedure (TOP-P-053); and
3. Procedures for the emergency establishment of the Muskrat Falls to Happy Valley Interconnection in the event of a loss of transmission from L1301.³

vi. Labrador East Customer Communication Initiative

Status: Ongoing

Update: Implementation of the Labrador East Communication Initiative for 2021–2022 has commenced. Hydro representatives met with the Happy Valley-Goose Bay Town Council on November 8, 2021. Further stakeholder discussions are planned over the coming weeks.

² The agreement indicates an expiry date of the earlier of the end of March 2022 or the in-service date of the Muskrat Falls to Happy Valley Interconnection.

³ Equipment required for emergency establishment of the interconnection was tested in October 2021.

Other Items

Load Restrictions

Regulation 17, approved by the Board in Order No. P.U. 34(2019),⁴ remains in effect and limits large⁵ load additions in Labrador East and Labrador West. Hydro will continue to consider any new applications for load in light of this restriction.

Contingency Power

In the event of a catastrophic failure of L1301, Hydro is in the position to provide power on a contingency basis to Labrador East over the new system through the energization of L1303. Such an interconnection would require operating restrictions to mitigate risk to customers and would only be considered in an emergency situation due to the voltage regulation considerations required. Hydro would make a decision based on customer outage exposure in consideration of the limited supply from the Happy Valley Gas Turbine and North Side Diesel Plant, L1301 restoration time, forecasted weather, and energization time for the interconnection.

Other Labrador East Reliability Considerations

As previously communicated to the Board,⁶ a consequence of the deferral of the Muskrat Falls to Happy Valley Interconnection is that the Churchill Falls transformer T31 will not be available to replace Holyrood T7 for the coming winter. Hydro is working with Newfoundland Power Inc. to support the development of operating procedures to ensure the reliable operation of the 138 kV network on the Avalon Peninsula during this period.

Additionally, the 50 MVA transformer in the Muskrat Falls Terminal Station 3 on the North Spur is not available for relocation to the Happy Valley Terminal Station. This transformer must remain in place as capacitor banks at this terminal station are required for voltage support. For the coming winter, overloads that could arise from a power transformer failure in the Happy Valley-Goose Bay Terminal Station would be avoided by the operation of the Happy Valley Gas Turbine and the North Side Diesel Plant.

Hydro is not aware of any new or emerging issues that could impact the reliability of the Labrador East Interconnected System for the 2021–2022 winter season. Hydro will file its next update on December 17, 2021.

Should you have any questions or comments about any of the enclosed, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



Shirley A. Walsh
Senior Legal Counsel, Regulatory
SAW/kd

⁴ Originally approved in Board Order No. P.U. 32(2018).

⁵ 200 kW and greater.

⁶ "Labrador East Reliability Plan Update," Newfoundland and Labrador Hydro, March 17, 2020.

ecc: **Board of Commissioners of Public Utilities**
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