

September 21, 2020

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: 2020–2021 Winter Readiness – Preliminary Overview

As committed in its Near-Term Reliability Report,¹ the following is a preliminary overview of Newfoundland and Labrador Hydro's ("Hydro") winter readiness position for the 2020–2021 winter season.

Overview

At this time, there are no known risks that Hydro believes will prohibit its ability to complete its winter readiness activities in line with its December 1, 2020 planned completion date. Based on Hydro's Integrated Annual Work Plan, over 93% of Hydro's planned-to-date² winter readiness activities are complete and approximately 59% of all planned winter readiness activities are complete. Progress towards completion of the remaining winter readiness activities across all operating areas are also on target.

Hydro continues to work diligently to implement Business Continuity Plans and protocols for work execution during the pandemic to maintain its ability to complete work to ensure service reliability while ensuring the safety of its employees and contractors.

Capital Projects

Hydro has six capital projects ongoing that are critical for winter readiness as outlined in Table 1.

¹ "Near-Term Reliability Report," Newfoundland and Labrador Hydro, May 15, 2020.

² As of August 21, 2020.

Table 1: Capital Projects with Winter Readiness Scope

Project	Status
Overhaul Unit 1, Bay d’Espoir	Complete
Overhaul Unit 2, Turbine/Generator, CAT Arm	Complete
Overhaul Unit 2 Generator, Holyrood	Scheduled Completion: 27-Sep-2020
Overhaul Unit 2 Turbine Value, Holyrood	Scheduled Completion: 5-Oct-2020
Condition Assessment and Miscellaneous Upgrades, Holyrood	Scheduled Completion: 16-Oct-2020
Overhaul Unit 3 Boiler Feed Pump West, Holyrood	Scheduled Completion: 5-Nov-2020 ³

Table 1 indicates that as of August 31, 2020, two of the six capital projects are complete and the remaining four projects⁴ are on target for completion prior to mid-November 2020.

There are no significant risks to completing the remaining winter readiness capital scope of work and Hydro continues to closely monitor project status. Hydro notes that on September 1, 2020, annual maintenance was completed on Holyrood Thermal Generating Station Unit 1 which was placed back online and is in cold standby mode until it is needed to meet system requirements.

System Hydrology Status

As presented in Hydro’s Monthly Energy Supply Report for August 2020,⁵ Hydro’s aggregate reservoir storage level is 27% below the seasonal maximum operating level and 35% above the minimum storage limit. Hydro continues to monitor its reservoir storage levels to ensure sufficient supply to reliably serve customers through the 2020–2021 winter season and currently sees no risk associated with supply.

Management of Other Risks

Hydro has identified four risks that could impact reliability for the 2020–2021 winter season. Hydro has identified mitigation factors for each as identified below.

1) Bay d’Espoir Penstocks

This risk was identified in Hydro’s 2019 winter readiness reporting. As previously communicated to the Board, Hydro is working on the development of a long-term life extension plan for the Bay d’Espoir penstocks following previous failures associated with these assets. In an effort to achieve early detection of issues and mitigate risks associated with these assets in the near term, Hydro has taken the following actions:

- Implemented annual detailed inspections of the penstocks and weekly exterior visual inspections to identify external abnormalities;
- Developed a work plan for expedited repairs in the event of a failure including provision of long lead steel, pre-planned resourcing and pre-placement of heavy equipment; and

³ While not a component of the scope of the Unit 3 Boiler Feed Pump West project, Hydro is endeavoring to avail of an upcoming outage (i.e., transition of Unit 3 from synchronous condenser mode to generation operation) to complete additional inspection work (i.e., phased array ultrasonic testing and replication inspections) on Unit 3 prior to the end of 2020. This work is complementary to previously completed inspections by Hydro’s contractor B&W.

⁴ Holyrood Thermal Generating Station supplemental capital projects as approved in Board Order No. P.U. 14(2020).

⁵ “Monthly Energy Supply Report for the Island Interconnected System for August 2020,” Newfoundland and Labrador Hydro, September 17, 2020.

- Implemented a standing instruction to limit rough zone operation on the penstocks, with focused efforts on reducing rough zone operation on Penstock 1.

Through these actions, Hydro has mitigated risk of failure to the extent possible in advance of the 2020–2021 winter season.

2) Bay d’Espoir Terminal Station Circuit Breaker Failures

This risk was previously identified in Hydro’s 2019 winter readiness reporting and involves the failure of four 230 kV dead tank circuit breakers at the Bay d’Espoir terminal station.⁶ Further information on Hydro’s long-term plan for the replacement of these breakers will be outlined in the October Winter Readiness Planning Report. As a risk mitigation measure for the near term, Hydro currently has three spare circuit breakers and three spare breaker phases available to facilitate an expedient response should a breaker failure occur during the 2020–2021 winter season.

3) Bay d’Espoir Unit 1 Vibration

Hydro is presently experiencing higher than normal vibration levels during operation of Unit 1 at loads between 55 and 65 MW. Hydro completed a four day outage on September 11, 2020 to investigate the vibration issue and is currently reviewing the findings. Further information on this item will be available in the October Winter Readiness Planning Report.

4) Muskrat Falls to Happy Valley Interconnection Project

As previously identified in its 2019 Winter Readiness Planning reports, the Muskrat Falls to Happy Valley Interconnection is dependent on the in-service of the generating units at Muskrat Falls. As previously communicated to the Board, due to the impacts of the COVID-19 pandemic, the schedule for Muskrat Falls Unit 1 release for service has been impacted and has delayed the completion of the interconnection project. Hydro continues to closely monitor the progress of the Muskrat Falls assets to better understand the impact on the Muskrat Falls to Happy Valley Interconnection work. Hydro has identified and confirmed a contingency plan, similar to that which was in place during the 2019–2020 winter season, should the interconnection not occur. Hydro is currently assessing its next steps and expects to have a decision made with respect to the interconnection by the end of September 2020.

Conclusion

Hydro’s winter readiness status year-to-date as compared to plan is as expected in light of the challenges that have been faced this year with respect to the COVID-19 pandemic. Hydro is confident in its winter readiness position and its risk mitigation plans as it heads into the 2020–2021 winter season. Hydro will continue to monitor progress and execution risks and will file its first Winter Readiness Planning report by October 13, 2020.

⁶ First failure occurred in October 2018 and the last occurred in November 2019.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



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