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February 21, 2025

Board of Commissioners of Public Utilities
Prince Charles Building
120 Torbay Road, P.O. Box 21040
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Attention: Jo-Anne Galarneau
Executive Director and Board Secretary

Re: *Reliability and Resource Adequacy Study Review* – 2024–2025 Winter Readiness Planning Report – Update – February 2025

On December 10, 2024, Newfoundland and Labrador Hydro ("Hydro") filed its final 2024–2025 Winter Readiness Planning Report ("Report") with the Board of Commissioners of Public Utilities ("Board"). In its January 30, 2025 update ("January Update")[1] Hydro committed to filing a further update in February regarding the remaining outstanding winter readiness ("WR") items. Hydro's update is as follows.

Although Hydro has identified risks as outlined in the Report, mitigations are in place to help ensure adequacy of supply for the 2024–2025 winter season. Peak Island demands to date for 2025 were recorded on January 23. The peak was measured to be 1,723 MW and Hydro maintained sufficient reserves for the duration of this cold weather event. Hydro expects continued reliable service for customers for the remainder of the winter with supply provided by regulated generation sources and by Muskrat Falls generation via the Labrador-Island Link ("LIL"). The LIL is available for bipole operation up to 700 MW, with planning underway to coordinate high power testing in early March 2025, as system conditions allow.[2]

Holyrood Thermal Generating Station

Units 1, 2, and 3 at the Holyrood Thermal Generating Station ("Holyrood TGS") are online and supporting the system as required. Unit 1 returned to service on February 13, 2025 upon completion of the additional work required to refurbish the turbine rotor during the Overhaul Unit 1 Turbine Valves and Generator Program.[3,4] The unit is currently limited to 105 MW due to an apparent issue with the

[1] "*Reliability and Resource Adequacy Study Review* – 2024–2025 Winter Readiness Planning Report – Update – January 2025," Newfoundland and Labrador Hydro, January 30, 2025.
[2] As stated in the Report, while initially planned for the fourth quarter of 2024, Hydro determined that the 900 MW High Power Tests of the LIL should be postponed until later in the winter, as there are numerous sensitives to performing high-power tests during the early winter operating period.
[3] All outstanding capital work related to this project was completed in late January 2025; however, issues arose during start-up related to the main turbine stop valve, which delayed the return to service of the unit. These issues have since been resolved, and commissioning activities resumed in early February.
[4] All outstanding WR activities and equipment testing for Unit 1 were completed upon its return to service.

Main Steam Control Valves overhauled during the outage. Hydro has engaged General Electric to analyze operational data and develop a plan to return the unit to full capacity.

On January 23, 2025, plant output at Holyrood for Unit 2 and Unit 3 was limited to a combined 300 MW due to a steam trace leak with Tank 4. The steam leak reduced the heating of fuel from Tank 4, subsequently reducing the flow rate of combustion fuel to the plant. On February 9, the issue reoccurred resulting in reduced plant output for Unit 2 and Unit 3 to a combined 275 MW. This has since been resolved by placing a second tank in service to increase the fuel temperature coming from the tank farm. Tanks are planned to remain in parallel for the remainder of the winter season, except during fuel delivery.[5]

Muskrat Falls Generating Assets

Unit 2 at the Muskrat Falls Hydroelectric Generating Station ("Muskrat Falls") was taken offline on a planned outage for major turbine repairs on October 16, 2024, and was expected to return to service in mid-May 2025.[6] The planned inspection and overhaul work is currently underway; however, during disassembly of the Unit 2 runner, galling[7] was experienced on three runner blades. As a result of the requirement to dismantle more of the runner assembly than originally anticipated and repair the affected components, the expected return to service date for this unit is now mid-July 2025. Hydro is closely monitoring work progress to identify and mitigate schedule risks, and notes that the planned outage of Unit 2 does not impact WR as energy from Muskrat Falls Units 1, 3, and 4 are readily available to serve customers on the Island Interconnected System via the LIL.

As noted in the Report, a significant fire in spring 2024 resulted in the total loss of the storage facility housing Hydro's Muskrat Falls generation critical spares. A significant effort has been undertaken to replenish the critical spares inventory, and Hydro has in stock over half of its critical spares.[8] The remaining parts are at various steps within the procurement process. Should any outstanding parts become critical to winter operation, it may be possible for Hydro to utilize parts from Unit 2, if necessary.

Table 1 provides an overview of the critical spares program for Muskrat Falls generation. Hydro has prioritized ordering of items based on WR and has developed a plan to action the remaining items not yet on order, expecting to complete all outstanding orders by the target date of the first quarter of 2025.

[5] During fuel delivery, Tank 1 will be placed in service to permit discharge to Tanks 3 and 4.
[6] All outstanding Annual Work Plan ("AWP"), WR items and inspection and testing on Unit 2 are scheduled to be completed upon its return to service.
[7] Galling is a form of wear caused by adhesion between sliding surfaces. It is not a concern with respect to the operability of existing units.
[8] At the time of the fire, Hydro was still in the process of integrating the spares for Muskrat Falls to the database and procurement process used for other assets, which has resulted in some delays in the re-ordering process. Hydro continues to work with vendors to address further delays which occur when procuring a list of this magnitude, including instances where the stock items were no longer available, and an alternative needed to be selected or re-tendered.

Table 1: Critical Spares for Muskrat Falls Generation[9]

Status	Quantity
In Stock	803
On Order[10]	534
Not Yet On Order	140
Total	**1,477[11]**

Muskrat Falls Transmission Assets

At the time the January Update was filed, 32 WR activities remained outstanding for the LIL, Labrador Transmission Assets, and Soldiers Pond Terminal Station, 7 of which have since been completed. The remaining 25 activities consist of lower priority items which require outages, and are expected to be completed when system conditions allow.[12]

Hydro is confident in its ability to serve its customers during the 2024–2025 winter season. The results of Hydro's review of the year-to-date planned completion status of its AWP and WR for both the Labrador Interconnected System and the Island Interconnected System indicate that Hydro is sufficiently positioned for the remainder of the winter.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO

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[9] Stock status listed in Table 1 is as of February 17, 2025.
[10] Items listed as On Order are all on order through Hydro's Supply Chain Department in varying stages of procurement; including the requisition, quote or purchase order stage.
[11] Hydro has previously reported the total number of critical spares for Muskrat Falls generation as 1,487; however, this number has since been updated to 1,477 as Hydro continues to evaluate its identification of critical spares to set an appropriate target for the purpose of WR.
[12] The remaining 25 activities include 12 activities for the LIL and LTA, and 13 activities for Soldiers Pond Terminal Station.

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