

January 19, 2018

The 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 Corporate Services & Board Secretary

Dear Ms. Blundon:

**Re: The Board's Investigation and Hearing into Supply Issues and Power Outages on the
Island Interconnection System – Winter Readiness Planning Report – Update**

On December 8, 2017, Newfoundland and Labrador Hydro (Hydro) filed the Winter Readiness Planning Report – November Update (the Report). While all winter readiness work for the Holyrood Thermal Generating Station, within the Bay d'Espoir Hydroelectric system, and on the transmission system were completed by the submission date, the report noted that several items for Gas Turbines, Terminal Stations, and Capital Projects were scheduled to be completed within 2017, but after submission of the Report on December 8, 2017, and that a further update would be provided to the Board of Commissioners of Public Utilities (the Board) regarding these items. For the items carried into 2018, as noted in the Report, assessment of the risk has been completed and items have been moved into the 2018 Integrated Annual Work Plan. This letter provides Hydro's update to the December 8, 2017 Winter Readiness Report for items planned to be completed by December 31, 2017.

Status Update – Gas Turbines

As noted in section 2.2 of the Report, three items were outstanding after December 8, 2017 with respect to Hydro's Gas Turbines. The status of those items is provided below:

- Item: Replace service computer for the Hardwoods Gas Turbine
 - Update: This preventive maintenance work was to swap the computer on the Hardwoods Gas Turbine with the spare computer (ensures a healthy backup computer is ready and available), and was completed by the Terminal Station group on December 13, 2017.
- Item: Annual inspection of the lube oil for the Holyrood Gas Turbine
 - Update: Although scheduled to be complete by December 22, 2017, this work was actually completed on December 3, 2017, but inadvertently did not get reported as complete in the December 8, 2017 Winter Readiness Update Report.
- Item: Annual inspection of the emergency diesel for the Holyrood Gas Turbine
 - Update: The annual inspection was completed and passed on December 13, 2017.

Status Update – Terminal Stations

As indicated in Section 2.4 of the Report, three winter readiness items in the Terminal Station were incomplete as of the December 8, 2017 report. The status of those items is below:

- Item: Four minor modifications of the Breaker Failure System on Hardwoods Transformers T1, T2, T3, and T4 were delayed due to delays in capital project upgrades as a result of delays in receiving the required materials
 - Update: Minor modifications of the breaker fail system for T1, T2, T3 and T4 were completed on December 14, 2017.
- Item: Preventive maintenance work on Hardwoods B8B9 Operate Breaker delayed due to coordination of work with Newfoundland Power
 - Update: The preventive maintenance work was completed on December 11, 2017.
- Item: Preventive maintenance work to swap computers on the Hardwoods Gas Turbine was delayed due to system loading and conditions.
 - Update: The service computer work was jointly completed with the Gas Turbines group, which was completed on December 13, 2017 as noted above.

Status Update – Capital Projects

As described in the Report, some capital projects were noted as having winter readiness activities that were incomplete on December 8, 2017 and would be completed in 2017, or were carried over to 2018. The status of those items is as follows:

Capital Projects Completed

- Item: Refurbishment of Penstock 1 – Bay d’Espoir
 - Update: Penstock 1 required emergency refurbishment due to a weld failure. This work was completed as planned and the penstock went into service on December 8, 2017; however, cleanup and demobilization continued after this date until December 15, 2017.
- Item: Purchase Capital Spares – Hydraulic: Bay d’Espoir Unit 7 Excitation Transformer and Hinds Lake Excitation Transformer
 - Update: As noted, the Bay d’Espoir Unit 7 Excitation Transformer was due to be delivered on December 22, 2017, and was received on site on January 4, 2018. The Hinds Lake Excitation Transformer was due to be delivered on December 15, 2017, and was received on site on January 10, 2018.
- Item: Purchase Capital Spares – Terminal Stations
 - Update: The remaining item in this work scope was the purchase of isolated phase bus ducts for the spare transformer. This equipment was received in Bishop’s Falls on December 12, 2017.
- Item: Purchase Backup Diesel for Station Service - Grand Falls and Buchans
 - Update: The Backup Diesel unit was expected to be delivered on December 15, 2017 and was received on site on December 19, 2017.

- Item: Perform Wood Pole Line Management
 - Update: Remaining work on TL 203 planned for completion by December 8, 2017 was delayed until TL 267 was in service to reduce the execution risk and was partially completed during the week of December 11, 2017. The remaining work was carried over to 2018 with required pole replacements completed on January 19, 2018. Replacement of two crossarms and a crossbrace are in progress and are scheduled for completion by January 24, 2018.
- Item: Construct 230 kV Transmission Line – Bay d’Espoir to Western Avalon
 - Update: This transmission line, known as TL 267, went into service on December 6, 2017.

Capital Projects Carried into 2018 Annual Work Plan:

The following projects have not been completed as of this report date, and are added to the 2018 Annual Work Plan. Notes are referenced to the December 8, 2017 Winter Readiness Update Report, Appendix A.

- Purchase Capital Spares – Hydraulic
 - From Note 1C – The Hinds Lake exciter slip rings are scheduled for delivery on May 15, 2018.
- Upgrade Work – Cat Arm
 - From Note 2A – A risk assessment was completed as noted in the December 8, 2017 update report, with completion of the required work planned for 2018.
- Refurbishment of the Main Generator Breaker for Upper Salmon
 - From Note 3 – Parts were received and are available in the event of failure as noted in December 8, 2017 update report. Work will be completed in 2018.
- Procurement of 12 MW of Diesel Generation – Holyrood
 - From Note 8A – Diesel generation units are available for emergency and peak load generation, as well as black start of the Holyrood plant. Remaining work will be completed in spring of 2018.
- Replacement due to In-Service Failures – Terminal Stations
 - From Note 5 – A new 230 kV circuit breaker, a new 138 kV circuit breaker and a new 69 kV circuit breaker are on order and were expected on January 12, 2018. The new delivery date is January 29, 2018. Hydro has access to other spare circuit breakers that are available in the event of failure.
- Replace Air Conditioning Units – Hydro Place
 - From Note 7 – The work to replace the air conditioner in the Uninterruptable Power Supply room in Hydro Place was expected to be completed by December 15, 2017; however, this work has been delayed until January 26, 2018. It should be noted that temporary air conditioning is in place and available until the new permanent unit is installed, so there is no risk due to the carryover of this project.

Summary

As indicated above, much of the outstanding work has been completed, with some work remaining; however, in all cases the risks have been assessed and are low, with all equipment to remediate failures available in the unlikely event of an issue. Unless otherwise noted, any work that remains incomplete will become part of the 2018 integrated annual work plan, for execution in 2018. We continue to assess the condition of the assets discussed with overall reliability and customer outages in mind, and do not believe that there are any major concerns.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



Michael S. Ladha
Legal Counsel & Assistant Corporate Secretary
MSL/skc

cc: Gerard Hayes – Newfoundland Power
Paul Coxworthy – Stewart McKelvey Stirling Scales
Dean Porter – Poole Althouse

Dennis Browne, Q.C. – Consumer Advocate
Danny Dumaresque

Ecc: Denis Fleming – Cox & Palmer
Roberta Frampton Benefiel – Grand Riverkeeper Labrador