

July 30, 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: Reliability and Resource Adequacy Study Review – Update on Additional Considerations Regarding Labrador-Island Link Reliability Assessment

As follow-up to Newfoundland and Labrador Hydro's ("Hydro") correspondence of April 30, 2021, the enclosed is an update on the status of the additional analysis Hydro is undertaking related to the Haldar & Associates' *Assessment of Labrador Island Transmission Link (LIL) Reliability in Consideration of Climatological Loads*.

Hydro identified four areas for which additional analysis would be completed. A brief description and the status of each are outlined in Table 1.

Table 1: Additional Considerations – LIL Reliability Assessment

Activity	Description	Anticipated Completion Date	Status
1 Unbalanced Ice	Analysis to consider specified load case for unbalanced ice loading for the Labrador section of the Labrador-Island Link ("LIL").	June 30, 2021	Analysis Substantially Complete
2 Wind Speed Up	Complete terrain models for the entire LIL to determine if there are any potential hot spots with respect to wind speed up as a result of the sloping terrain that have not been previously identified.	August 31, 2021	70% Complete
3 Pole Conductor Size	Analysis of critical towers in various segments of the LIL to determine how the pole conductor size will impact reliability and offset other issues such as unbalanced loading and wind speed up effects.	June 30, 2021	Analysis Substantially Complete
4 Combined Wind and Ice	Analysis to understand the effects of using the high range of combined wind and ice factors on the Labrador section of the LIL.	July 31, 2021	Analysis Substantially Complete

The interpretation of the results related to the above analysis is underway for those components which are completed. As noted in Hydro's correspondence of April 30, 2021, Hydro will present its results to the Board of Commissioners of Public Utilities ("Board") once all components of its work have been completed. A final report is scheduled to be filed with the Board in Q4 2021.

In addition to the considerations outlined in Table 1, there were three additional areas identified for consideration. These include:

- Progressive Tower Analysis – this activity is dependent on the results of activities 1–4 outlined in Table 1. This analysis involves evaluating critical segments of the LIL under a more detailed Ultimate Limit State scenario. Hydro is awaiting the final pieces of analysis of the activities in Table 1 prior to determining whether this work will be undertaken;
- Extreme Event Correlation – this analysis would consider the overall line reliability based on the line length and correlation of extreme events between varying segments. Hydro has yet to finalize its position with respect to this item. Considerations are ongoing regarding the magnitude of investment required for higher design reliability compared to the expected benefits of reliability that could be realized; and
- Event Tree Analysis – investigation of the effects of surpassing the damage limit state scenario which is not suspected to result in an extended outage and therefore should not influence Hydro's system planning requirements. Consideration is being given to the operational impacts and methods of risk mitigation; these will be addressed as part of the follow on considerations and work related to the failure investigation reports and updates to the LIL emergency response plan.

Hydro's position with respect to the Progressive Tower Analysis and the Extreme Event Correlation, and any associated outcomes, will be included in its final report.

Remaining Reports/Analysis – Anticipated Schedule

As outlined at the June 9, 2021 Technical Conference #3, Table 2 provides the anticipated time frames for completion of the remaining reports/analysis related to the Reliability and Resource Adequacy Study proceeding.

Table 2: Remaining Reports/Analysis – Anticipated Schedule

Report/Analysis	Scope	Anticipated Time Frame for Completion
1 Update Regarding the Design Review Pertaining to L'Anse au Diable Electrode Site	Correspondence to provide an update on the status of the review and any related work.	Q3 2021
2 Additional Considerations of the LIL Reliability Assessment and Outcomes of the Failure Investigation Findings	Provision of findings related to the LIL Reliability Assessment additional considerations work being undertaken, as well as any necessary work related to the findings of the failure investigation reports and updates to the LIL emergency response plan.	Q4 2021
3 Network Additions Policy Incremental Load Requirements and System Impact Studies	Findings related to load requirements assessment and system impact studies for Labrador and associated estimated supply requirements.	Q1 2022
4 Assessment to Determine the Potential Long-Term Viability of the Holyrood Thermal Generating Station	Assessment to determine (i) the requirements of extending the Holyrood Plant on an interim basis in the short-term (e.g., additional 2, 4, or 6 years), should it be required, and (ii) whether the Holyrood Plant can economically provide support to the system on a longer term basis as a backup generation facility.	Q1 2022
5 Reliability and Resource Adequacy Study, Volume I and III Updates	Update to Volumes I and III to reflect findings of the additional matters considered under the Reliability and Resource Adequacy Study proceeding including the LIL Reliability Assessment, Network Additions Policy System Impact Studies, and Holyrood Thermal Generating Station Assessment.	Summer 2022

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



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

Encl.

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

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