

NEWFOUNDLAND AND LABRADOR

BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

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2021-03-25

Ms. Shirley Walsh Senior Regulatory Counsel Newfoundland and Labrador Hydro P.O. Box 12400 Hydro Place, Columbus Drive St. John's, NL A1B 4K7

Dear Ms. Walsh:

Re: Newfoundland and Labrador Hydro - Reliability and Resource Adequacy Study Review - Labrador-Island Link Reliability Assessment

This is further to your letters of March 12, 2021 and March 16, 2021 and the report by Asim Haldar, Ph.D, P.Eng. titled *Assessment of Labrador Island Transmission Link (LIL) Reliability in Consideration of Climatological Loads* (the "Haldar Report").

The Haldar Report raises troubling concerns regarding the as-built design of the LIL with potential significant negative implications for the LIL's reliability. Further analysis and study of a number of matters is recommended by Dr. Haldar before a more robust determination can be made on the LIL's reliability. In particular the baseline measure of reliability for the as-built LIL design was found to reflect a 1:72 year return period based on the CSA standard Damage Limit State ("DLS") analysis, and 1:160 return period based on an Ultimate Limit State ("ULS") analysis. However, the Haldar Report concluded that applying a probabilistic failure analysis considering the full line length and regional groupings results in the return period under both a DLS and an ULS analysis being less than 50 years. In addition, Dr. Haldar outlined a number of matters that, in his opinion, were not appropriately considered in the LIL's design, such as unbalanced ice loading due to ice shedding, the overall long length of the LIL, and the impact of local topographic exposures. Dr. Haldar concluded that the LIL does not meet Hydro's design criteria under unbalanced ice loads that Hydro has used in the past for transmission lines it has built and that industry best practices were not followed with respect to certain transmission line design practices.

The March 12, 2021 correspondence set out that Hydro, in consultation with Nalcor, is currently undertaking a preliminary assessment of the additional considerations identified by the Haldar Report and will provide a follow-up to the Board by April 30, 2021. In light of the significant issues raised by the Haldar Report on the LIL reliability, the Board requires that Hydro, no later than April 30th and earlier if possible, provide:

- 1) An explanation as to its position on each of the findings, setting out clearly whether it agrees.
- 2) An explanation as to its position on each of the recommendations, setting out clearly whether it agrees.
- 3) Its plan to undertake the recommended additional analyses.
- 4) The scope of the work to be done with respect to each of the recommended additional analysis.
- 5) A schedule with identified milestones to complete all the recommended analyses.

In the March 16, 2021 correspondence Hydro set out that it was deferring the update with respect to long-term planning considerations until a number of follow up activities were completed, including those arising from the Haldar Report. The Board has concerns in relation to the timeframes proposed by Hydro and the lack of an overall schedule for the assessment of the Reliability and Resource Adequacy Study. The Board believes that these matters should proceed as expeditiously as possible given the current schedule for the in-service of the LIL and the significant outstanding issues around LIL reliability. To ensure that these matters are proceeding with all due dispatch the Board requires that, in addition to the information with respect to the Halder Report, Hydro should provide the following by April 12, 2021:

- 1) Confirm the schedule for each of the additional reports on the February, 2021 LIL icing events and the electrode damage events, with critical milestones for the work of the study identified. Please explain why each of these reports cannot be completed earlier. On March 9, 2021 the Board asked a number of questions on these events which do not appear to be dependent on the completion of the ongoing analysis, including questions 1 a, d, f and h-i, inclusive. The Board expects these questions, as well as those in numbers 2-5, inclusive, to be answered by the date previously set of March 30, 2021.
- 2) Explain why the report on the potential long-term viability of the Holyrood generating plant cannot be completed earlier than the first quarter of 2022.
- 3) Explain why it is not possible at this time to update certain long-term matters, including additional generation alternatives for the Island in the event that it is required. Given the current forecast in-service of the LIL for November, 2021, the long lead times associated with certain generation alternatives, the current plan to remove Holyrood from service in March, 2023 and the continuing questions on the reliability of the LIL, the update of potential alternatives identified in the Reliability and Resource Adequacy Study appears to be appropriate to allow the necessary planning to proceed.
- 4) Provide an overall schedule of all activities and reports that, in Hydro's opinion, impact the schedule for the assessment of the Reliability and Resource Adequacy Study.

If you have any questions, please do not hesitate to contact the Board's Legal Counsel, Ms. Jacqui Glynn, by email, jglynn@pub.nl.ca or telephone (709) 726-6781.

Sincerely,

Cheryl Blundon
Board Secretary

CB/cj

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