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April 13, 2015

The Board of Commissioners of Public Utilities PO Box 21040
120 Torbay Road
St. John's, NL A1A 5B2

Attention: Ms. Cheryl Blunden

Director of Corporate Services and

Board Secretary

Dear Sirs:

Re: The Board's Investigation and Hearing into Supply Issues and Power Outages on the Island Interconnected System – Newfoundland Power's Application for Fuller Responses to certain Phase 2 RFIs

We are counsel for Newfoundland and Labrador Hydro ("Hydro"). Hydro is in receipt of Newfoundland Power's correspondence and Application of March 20, 2015 in which Newfoundland Power seeks fuller responses to RFI's NP-NLH-004, 005 and 018. In accordance with the Board's correspondence of March 27 setting the deadline for comments on this matter, the following constitutes Hydro's response to Newfoundland Power's Application.

Regarding NP-NLH-004 and 005 Newfoundland Power states that "no mathematical calculations were provided". Regarding NP-NLH-018 Newfoundland Power states that "no design specifications or supporting documents were provided".

With respect to NP-NLH-004 Hydro provided a 57 page response with detailed, numerical information regarding the return period of climatic loads used in the design of the Labrador-Island HVDC Link ("LIL") together with detailed information on the ice and wind weather cases. Hydro submits that it has provided a full response to the issues raised in NP-NLH-004, in relation to the matters being reviewed by the Board in this process. Newfoundland Power contends that Hydro should be required to provide the complete mathematical modeling and backup files that support all of its calculations down to the level and location of tower structures.

As noted by Hydro in its response to NP-NLH-018 the Board in Decision P.U. 41(2014), stated at page 26 that "[t]his proceeding will not involve an analysis of engineering and construction issues associated with the Muskrat Falls Project" and "... it is not necessary for Hydro to provide detailed technical information or reports related to engineering and construction issues but rather should direct its response to the risks and consequences to the Island Interconnected system of the scenarios and issues raised".

Hydro submits that it has done exactly what the Board has indicated should be done in respect to responding to Requests for Information in this proceeding. Hydro has specifically responded as to the return period of climatic loads used in the design of the LIL with considerable detail provided regarding the development of the return periods for both the ice and wind weather cases. Hydro does not believe it is necessary or appropriate to provide all of the specific suspension tower load cases and the mathematical calculations supporting each of those in order for other parties, including the Board, to evaluate the risk of reliability with respect to the LIL in relation to ice and wind conditions. As stated in NP-NLH-004 Hydro is developing the LIL to meet the return periods specified in that response, the development of which has been discussed in detail. The further information being sought by Newfoundland Power is of such a granular nature as to request all engineering modelling data used in the development of the LIL. Hydro submits that this is a level of detail well beyond what was anticipated by the Board to be provided in relation to the ongoing review process.

As noted in Board Decision P.U. 41 at pages 4 and 15:

"However, <u>detailed technical information in relation to Nalcor's planning and construction of the Muskrat Falls Project</u>, alternative approaches which may have been taken, and issues associated with the economic or physical viability of the project <u>are not required or relevant in this proceeding</u>." (emphasis added) (page 4)

"This proceeding will not involve a technical review of any aspects of the construction of the Muskrat Falls project." (page 15)

The Board likewise noted in this regard at page 4, that it was specifically exempted from review of the Muskrat Falls Project per se and from the regulation of Nalcor which is responsible for the Project.

There is a significant distinction between the meteorological loading input used for the design of the LIL and the detailed engineering calculations used for the design and construction of the LIL. Selection of return periods and load conditions provides an input into the overall reliability of the transmission line, consistent with the Board's review process. This is quite distinct from verification of the accuracy of Nalcor's engineering consultant's calculations which is the information that Newfoundland Power is seeking to obtain and review. The meteorological design inputs have been provided as well as the basis for those inputs. While this information is relevant to the Phase 2 review, nothing in the terms of reference for this aspect of the review, or the related Board Orders, contemplates a review of the underlying engineering calculations utilized in the development of the LIL.

Hydro submits that Newfoundland Power's consultant should provide his opinion with respect to the reliability of the LIL within the confines of the review process as set out by the Board, as described in detail above. To the extent that Newfoundland Power appears to be requesting its consultant to review matters beyond the scope of the proceeding, then that is neither required or appropriate.

With respect to NP-NLH-005, Newfoundland Power asked similar questions to that in NP-NLH-004 with respect to the return period of climatic loads used in the design of the proposed 230 kV transmission line from Bay d'Espoir to Western Avalon. Again, Hydro submits that it provided a

full response to the question posed, notwithstanding that this request for information was in fact in relation to a separate line from the LIL.

Further, Hydro specifically noted in the last paragraph of that response:

"During detailed design, the as-designed capability of the line will be compared to the CSA 150-year loadings, along with the proposed methodology outlined in IEC 60826 for combined ice and wind loading. If additional structures and costs are required to accommodate these loadings after structure locations are confirmed, appropriate capital budget submissions will be made for the Board's consideration."

Hydro has provided a complete response within the ambit of the Phase 2 review, as well as noting that any further revisions as may be required to meet the referenced return periods will be considered during detailed design and if additional requirements are necessary these will be brought forward to the Board. Hydro submits that the underlying mathematical calculations are not necessary to consider the reliability of the Bay d'Espoir to Western Avalon line in relation to return period criteria. Further, as Hydro noted in its response, this line "is currently planned to be constructed to Hydro's standard design criteria", and it was in fact the subject of a separate Board approval process.

With respect to NP-NLH-018 Newfoundland Power requested that Hydro "provide a copy of the design specifications of all line components of the Labrador-Island HVDC Link and the proposed 230 kV line from Bay d'Espoir to Western Avalon, including tower loads, conductor sag tensions and any other supporting documents".

Hydro submits that this information is clearly well beyond the scope of the Phase 2 review and what is necessary in regard to a determination of post-Muskrat reliability. Not only has Newfoundland Power requested the design specifications of every line component of the LIL, it has also requested the same with respect to the Bay d'Espoir to Western Avalon line. For the reasons noted above and as stated in Hydro's response to NP-NLH-018, Hydro submits that a review of the design specifications and design parameters for transmission line hardware and components for either the LIL or the new Bay d'Espoir to Western Avalon line is beyond the scope of the requirements for the Phase 2 review as set out by the Board, and clearly involves an analysis of engineering and constructions issues associated with the Muskrat Falls Project contrary to the Board's express statements in this regard.

Also as noted in Hydro's response to NP-NLH-018, "a comprehensive overview of the meteorological loads, applicable standards, and an assessment of the as-designed capability of the [LIL] has been provided in Hydro's response to NP-NLH-004". As noted previously, this was an extremely thorough response. Hydro submits that in accordance with the Board's prior rulings it has directed "its response to the risk and consequences to the Island Interconnected system of the scenarios and issues raised".

For the foregoing reasons, Hydro respectfully submits that the Board should deny Newfoundland Power's Application for fuller responses to NP-NLH-004, 005 and 018.

Hydro also has the benefit of the Grand Riverkeeper Labrador Inc's ("GRK") submission in this matter dated April 1, 2015. For the reasons noted above, Hydro submits that there is no issue of natural justice or procedural fairness with denying Newfoundland Power's Application as Hydro has provided full responses within the parameters of the Phase 2 review as already determined by the Board and Newfoundland Power is in no way prejudiced by a denial of the Application with respect to addressing the matters appropriately under review in this proceeding.

Yours very truly,

David S. MacDougall

cc: Interested Parties