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January 14, 2015

The Board of Commissioners of Public Utilities
Prince Charles Building
120 Torbay Road, PO Box 21040
St. John's, Newfoundland & Labrador A1A 5B2

Attention: Ms. Cheryl Blundon, Director of Corporate Services & Board Secretary

Dear Ms. Blundon:

Re: The Board's Investigation and Hearing into Supply Issues and Power Outages on the Island Interconnected System – Reply to Motion to Order more Complete Responses

We are counsel for Newfoundland and Labrador Hydro ("Hydro"). On December 22, 2014, the Grand Riverkeeper Labrador, Inc. ("GRK") filed a Motion to Order Complete Responses to certain Requests for Information ("RFIs") and to Suspend GRK Delays until Complete Responses are Provided, and on January 6, 2015 filed a Supplemental Motion regarding further RFIs (collectively the "Motions"). Subsequently by letter dated January 9, 2015 the Board set a paper process to deal with the Motions.

The GRK noted, in part, in its initial Motion that the responses to RFIs GRK-NLH-60, 63 and 67 were outstanding. On January 6, 2015 Hydro filed responses to GRK-NLH-60 and 67, and in its covering correspondence with that filing noted that it is awaiting the Board's response to its request that it is not required to respond to GRK-NLH-63. In its January 9 letter the Board noted that it would consider the present Motions together with Hydro's request regarding GRK-NLH-63.

The GRK also noted in its initial Motion that in its view RFIs GRK-NLH-21, 24, 45, 46, 57, 66, 69 and 74 were not responsive, and set out its position with respect to these responses. In its Supplemental Motion the GRK also challenged portions of Hydro's response to GRK-NLH-60. This correspondence constitutes Hydro's response to the GRK Motions.

RFIs regarding the North Spur (GRK-NLH-45, 46 and 57)

GRK-NLH-045

The GRK contends that the answer provided does not respond to the questions posed, "Have any studies been performed including a progressive failure analysis in the North Spur? If so, please provide the complete analysis, If not, why not?"

As noted by Hydro in its response, the Board has already ruled that detailed technical information in relation to the North Spur is not relevant to the issues in this proceeding. At page 26 of Board Order P.U. 41 (2014) the Board specifically stated that "[t]his proceeding will not involve an analysis of engineering and construction issues associated with the Muskrat Falls Project" and at page 15 "[t]he Board does not believe that it would be relevant or useful in this proceeding to require the production of detailed technical information in relation to the North Spur at the Muskrat Falls development".

With respect to the Board's ruling that information regarding risks associated with the North Spur as it goes to the provision of the reliable and adequate provision of power may be within the scope of this proceeding (page 15 of Order P.U. 41), in its response Hydro has cross referenced to its response to GRK-NLH-044 which specifically addresses this issue by describing in detail the options available to Hydro in the very unlikely event of a dam breach at Muskrat Falls. A progressive failure of the North Spur would have a similar impact to a dam breach in that the ultimate result could be the loss of all or substantially all of the output from Muskrat Falls. Thus Hydro submits that it has provided an appropriate response to GRK-NHL-045.

GRK-NLH-046

The GRK contends that the answer provided does not respond to the questions posed, "Has NLH or its parent company evaluated the risk of retrogressive spreads, downhill progressive landslides or "bottleneck slides" at the North Spur site? If so, please provide a summary of its conclusions, and copies of any studies referred to."

The comments under GRK-NLH-045 above are equally applicable here in that retrogressive spreads, downhill progressive landslides or "bottleneck slides at the North Spur site would have a similar impact to a dam breach in that the ultimate result could be the loss of all or substantially all of the output from Muskrat Falls. Thus Hydro had simply in its response to GRK-NLH-046 referred back to its response in GRK-NLH-045 which in turn references Hydro's response to GRK-NLH-044. This RFI clearly sought information which the Board had previously ruled was not applicable to this proceeding, and Hydro's response to GRK-NHL-044 is responsive "to the extent that the responses can address the consequences regarding the availability of a reliable supply of power to the Island Interconnected System and how these risks have been addressed" as noted at page 26 of Order P.U. 41. Thus Hydro submits that it has provided an appropriate response to GRK-NHL-046.

GRK-NHL-057

The GRK contends that the answer provided does not respond to the questions posed, "Has the North Spur stabilization plan been subjected to independent third party review? If so, please provide details of who carried out the review, when, and the results of their review. If not, are there any plans for such independent review? If not, why not?"

The GRK notes Hydro's reference to Order P.U. 41 which the GRK states "rejected Hydro's Motion with respect to this question". However, although required to provide a response, at page 27 of the Order the Board specifically stated that the information requested "generally goes beyond what would be relevant and useful in this proceeding, seeking detailed technical data and reports in relation to the work to be done to stabilize the North Spur" and the Board rejected Hydro's Motion in this regard only "to the extent that the responses can address the consequences regarding the availability of a reliable and adequate supply of power to the Island Interconnected system". Hydro specifically noted this reference in its RFI response and then cross referenced to its response to GRK-NLH-044 which addresses the issue that the Board stated was relevant for this proceeding. Thus Hydro submits that it has provided an appropriate response to GRK-NHL-057.

Hydro also notes that in its response to PUB-NLH-210 the Independent Engineer's report for the Lower Churchill Project has already been filed.

RFIs regarding the worst-case estimate of a bipole outage (GRK-NLH-66, 69 and 74)

GRK-NLH-066

This GRK RFI requested that Hydro "Please provide NLH's worst-case estimate for the duration of an ice-related forced outage of the HVDC line through the Northern Peninsula."

Hydro referred the GRK to Hydro's response to PUB-NLH-299. Hydro's response to PUB-NLH-299 explained why Hydro selected a two week repair duration for an ice-related forced outage of the HVDC line through the Northern Peninsula. RFI PUB-NLH-299 was asked further to GRK-NLH-033 (as noted in PUB-NLH-299) where Hydro was requested to provide its worst-case estimate for this situation. As indicated in the response to GRK-NLH-033 Hydro has an objective to limit the repair duration in the circumstances described to two weeks. The GRK never challenged this response which Hydro submits fully addressed the RFI. In GRK-NLH-066 the GRK reiterated the exact same question it posed in GRK-NLH-033 which was already responded to by Hydro.

For the reasons discussed in detail in the response to PUB-NLH-299 Hydro concluded "the two-week repair duration objective was selected as reasonable for the development of restoration plans". Hydro submits that its responses to GRK-NLH-033 and PUB-NLH-299 are fully responsive to GRK-NLH-066, and Hydro confirms that it does not have a worst-case planning estimate in excess of two weeks for the situation in question.

GRK-NLH-069

This GRK RFI requested that Hydro "Please indicate for how many hours a year NLH can count on 1013 to 1043 MW from Island hydroelectric generation."

The GRK states that the response is limited to discussing availability during a two-week outage and that the broader question of how many hours a year these power levels are available was ignored.

The GRK ignores the entire first paragraph of the response which explained in detail that the ability of the hydro-electric generation on the island to supply maximum output for extended periods of time is dependent to a large degree on various factors, being the reservoir levels at the time of a complete Labrador Island Link ("LIL") outage (the premise of the question), the expected inflows post outage and the required reservoir storage levels necessary to ensure the supply of energy in the post outage period.

In order to provide a meaningful response, due to the assumptions required, Hydro then responded to the RFI in relation to a two-week LIL outage, noting "Hydro has set the maximum LIL bipole outage duration at two weeks for loss of the overhead line. The worst case two-week outage window with respect to capacity to supply the load would occur during the winter peak load period."

Hydro submits that the complete response provides a meaningful response to the RFI based on relevant assumptions. Hydro is unable to simply reply generically as to how many hours it can count on 1013 to 1043 MW from island hydro-electric generation, and thus responded under the applicable assumptions which formed the premise of the RFI and allowed for a meaningful response. However, to be of further assistance, Hydro notes that as indicated in its response to GRK-NLH-069, on average in excess of 1,400 GWh of energy would be in storage in Hydro's on Island reservoirs. Assuming no inflows (which is a conservative assumption), 1,400 GWh is sufficient to generate 1,000 MW for a period of approximately two (2) months.[1] Hydro submits that it has provided an appropriate response to GRK-NHL-069.

GRK-NLH-074

The GRK requested that Hydro provide a "spreadsheet showing month-by-month energy availability from each resource owned or operated by or available to Hydro, and its monthly energy requirements through 2025". The respond to this RFI is scenario dependent as explained above in relation to GRK-NLH-069 and thus Hydro responded in reference to its assumption that the longest sustained bipole outage would be two weeks. As part of its in-depth response Hydro provide in Table 1 the potential additional generation available from Hydro's major hydro-electric plants should it be needed to replace energy that would have come from the LIL (values are monthly averages from 50 hydrologic scenarios of the period January 2018 to December 2025) and in Table 4 the average energy in reservoir storage, for the winter months, from 2018 to 2025. Tables 2 and 3 were based on the relevant two week maximum outage assumed by Hydro. Hydro has thus responded in relation to the assumptions it is utilizing and is not in a position to simply provide a generic response in relation to potential LIL outages of unknown duration. However, in order to be of further assistance Hydro will prepare and file additional information on energy availability.

[1] [1,400 GWh * 1,000 MWh/GWh] / 1,000 MW = 1,400 hours
[1,400 hr / 24 hr/day / 30 days/month] = 1.94 months, or approximately 2 months

RFIs regarding the WMA (GRK-NLH-21 and 24)

Having reviewed the GRK's initial Motion Hydro has prepared revised responses to GRK-NLH-021 and 024 which are attached.

Supplemental Motion regarding GRK-NLH-060

The GRK challenges the responsiveness to the second and sixth bullets of this RFI. In relation to these two items the RFI requested that Hydro explain the forced outage probabilities used in Hydro's planning for Muskrat Falls, distinguishing between the probabilities of forced outages related to: (2nd bullet) events concerning the integrity of the MF reservoir (eg. a North Spur slide) and (6th bullet) outages related to energy interchanges with CF(L)Co, based on the Water Management Agreement. Hydro was also asked that if for any of the risks mentioned it considers the outage probability to be zero to please so indicate.

Regarding the 2nd bullet, in its response Hydro referred, as noted by the GRK in its Supplemental Motion, to Order P.U. 41's statement that it would not be relevant or useful in this proceeding to require the production of detailed technical information in relation to physical risks associated with the Muskrat Falls development and then cross referenced to Hydro's response to GRK-NLH-044. As noted above, Hydro's response to GRK-NLH-044 specifically describes in detail the options available to Hydro in the very unlikely event of a dam breach at Muskrat Falls. Other than to consider a potential dam breach at Muskrat Falls to be very unlikely, Hydro has not assigned a forced outage probability to "events concerning the integrity of the MF reservoir". Hydro likewise does not assign a forced outage probability to catastrophic events concerning the integrity of any of its dams. Hydro notes that the Muskrat Falls dam is being designed similar to all other Hydro dam facilities so that the probability of risk of failure is negligible.

Regarding the 6th bullet, the GRK has now clarified that this bullet was meant to refer to "the possibility that NLH would be unable to impose its understanding of the Churchill Falls Power Contract on CF(L)Co and its shareholder Hydro-Quebec, and that said inability would prevent NLH from fully providing the expected power and energy to the Island". Hydro does not assign forced outage probabilities to matters of contractual interpretation or the implications thereof and does not believe that forced outage rates are meaningful in such regard. As such, Hydro has not assigned a forced outage probability to this item.

Thus Hydro submits that as further clarified by the foregoing statements it has provided appropriate responses to the 2nd and 6th bullets of GRK-NHL-060.

All of which is respectfully submitted.

Yours very truly,

David S. MacDougall

cc: Interested Parties