

March 16, 2018

The Board of Commissioners of Public Utilities
Prince Charles Building
120 Torbay Road, P.O. Box 21040
St. John's, NL
A1A 5B2 Canada

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

Dear Ms. Blundon:

**Re: Newfoundland and Labrador Hydro – 2018 Capital Budget Application – Revised
Information pursuant to Board Order P.U. 43(2017)
Hydro's Reply re: Muskrat Falls to Happy Valley Interconnection Project**

Procedural History

Newfoundland and Labrador Hydro ("Hydro") filed its 2018 Capital Budget Application (the "Application") with the Board of Commissioners of Public Utilities (the "Board") on July 28, 2017 seeking approval under Section 41 of the *Public Utilities Act* (the "Act") of its proposed capital expenditures for 2018. Hydro subsequently made several revisions to, and withdrew one project from, the Application.

The Board issued order P.U. 43(2017) on December 22, 2017 approving the Application with the exception of the Muskrat Falls to Happy Valley Interconnection Project ("the Project") and the Hydraulic Generation Refurbishment and Modernization Project, on which the Board requested Hydro file additional information – in effect deferring the Board's decision on these projects. Hydro filed the revised information requested by the Board pursuant to Order P.U. 43(2017) on January 29, 2018. Hydro received an additional Board Order, P.U. 5(2018), approving the Hydraulic Generation Refurbishment and Modernization Project.

On February 16, 2018, Newfoundland Power submitted its comments, and the Iron Ore Company of Canada ("IOC") and the Labrador Interconnect Group ("LIG") applied for intervenor status, which was granted by the Board on March 2, 2018. On March 6, 2018, Hydro filed responses to questions raised by the Board and LIG in advance of a meeting between the parties on that same date. Pursuant to an expedited schedule established by the Board to address the Application set on March 9, 2018, and subsequently altered on March 14, 2018, Hydro filed its responses to additional RFIs on March 13, 2018. On March 15, 2018, Hydro received final comments from IOC, LIG, and the Consumer Advocate. Newfoundland Power had no additional comments subsequent to their submission on February 16, 2018.

Hydro's final reply with respect to the Muskrat Falls to Happy Valley Interconnection Project follows.

Submission of Newfoundland Power

Newfoundland Power in its submission of February 16, 2018 stated that the additional information provided by Hydro on January 29, 2018 provides the Board with sufficient information to approve the Project. Newfoundland Power noted, however, that the feasibility of maintaining the Happy Valley gas turbine and transmission line L1301 over the longer term should be more fully examined before further significant expenditures on those assets are approved. Hydro notes that the feasibility of maintaining the Happy Valley gas turbine over the long term is already being examined and will be reported on as part of Hydro's Generation Adequacy Report to be filed with the Board in November 2018.

Submissions of IOC, LIG, and the Consumer Advocate

A. Reliability Justification

Both IOC and LIG have submitted that Hydro's initial and main justification for the Project was based on load growth. Both parties also contend that in Hydro's recent filings, the justification has switched to one of reliability. These claims are inaccurate. Hydro included the first formal identification of the Project in Hydro's 2017 Capital Budget Application¹ (2017-2021 5-year Capital Plan, page A9), given that a new interconnection point would be available with the in-service of Muskrat Falls that would improve reliability to Labrador East in response to the significant operational risk associated with the existing system. The Board correctly pointed out in PUB-NLH-049 that the Project was listed as a \$75 million 2018/2019 reliability improvement project within the 5-year plan as part of Hydro's 2017 Capital Budget Application. At the time of including this project in the 5-year Capital Plan, load forecasts were exclusive of any data centre loads, which only materialized in 2017.

Discussions surrounding the increasing load in Labrador East are certainly relevant to the Project. Load growth concerns have been properly addressed at length by Hydro as part of its various filings and RFI responses related to the Project.

Hydro acknowledges that much of the justification provided in its various filings related to the Project focuses on load growth subsequent to the initial project proposal. It has been demonstrated that the system cannot withstand the loads forecasted for existing customers for the coming winter. The significant reliability concerns of the transmission system have therefore been compounded with an immediate need for action. The Project therefore should not be denied solely on the basis that forecasted loads may not materialize.

In its response to PUB-NLH-049, Hydro provided a detailed justification for the Project based on reliability alone. It warrants noting that none of the information supplied by Hydro

¹ Hydro's 2017 Capital Budget Application filed with the Board on July 28, 2016

in its response to PUB-NLH-049 was new but rather was a summary of the reliability based justification already on the record as part of the Application and the additional information filed by Hydro on January 29, 2018.

Hydro provided the reliability statistics for Labrador East in its response to question 7(a) of "Attachment 1 – Responses to PUB Questions" filed with the Board on March 6, 2018, which shows that reliability in Labrador East is dramatically worse than other areas in Labrador and on the Island. In its final reply, at paragraph 36, LIG correctly points out that these reliability issues do not arise from load growth but have been a feature of the system for decades.²

To date, the only options for improving the reliability of the system in Labrador East would cost in the order of \$90 million and \$250 million respectively.³ Both IOC and LIG point out that Hydro stated in response to LAB-NLH-034:

"The issue [...] is one of a balance between reliability (i.e. unavailability and expected unserved energy) and the impact on rates (i.e. how much are the customers willing to pay to improve reliability)."

It is precisely because of this balance that Hydro waited for a cost-effective solution to the reliability problem as presented by the opportunity to interconnect with the Muskrat Falls Terminal Station, which did not previously exist. Hydro feels it necessary to underscore that the Project provides an improvement in reliability by a factor of almost 10 for the comparatively low and reasonable capital cost (as compared to the previously possible alternatives) of \$20 million.⁴ For residential customers, this equates to a rate impact of 0.04 cents per kWh in 2018 and 0.11 cents per kWh in 2019.⁵

IOC and LIG's characterization of the Project as a response to a load based issue suggests a misunderstanding or mischaracterization of the Project information on the record and the reliability-based issues in Labrador.

In summary, Hydro and its customers in eastern Labrador face a significant operational risk, compounded by an immediate need for action. In response to these concerns, an extensive reliability and cost analysis was performed. Numerous expansion alternatives were considered and, ultimately, the least-cost, reliable project was proposed.

² Submission of LIG of March 15, 2018, paragraph 36.

³ PUB-NLH-049, page 7, lines 4-15.

⁴ Hydro's 2018 Capital Budget Application, Volume 2, Tab 13, Appendix A, Table 6.

⁵ <https://www.thelabradorian.ca/business/proposed-hydro-project-could-see-rate-increases-for-labrador-179526/>

B. The Data Centre Debate

Hydro recognizes that much of the recent load growth in Labrador East is driven by the arrival of data centres to the region attracted by low electricity rates. Hydro shares the concerns of IOC and LIG of the impacts of data centres on the Labrador Interconnected System. In its current General Rate Application, Hydro has indicated that it will be filing a Network Addition Policy for consideration by the Board.⁶ IOC, LIG, and the Consumer Advocate have all suggested that approval of this Project should be contingent on direction by the Board to Hydro to file a Network Addition Policy either prior, or subsequent to, approval of the Project. Such a policy, while important for the future state of the system, should have no impact on the justification for the Project. Rather, the Project is justified on the basis of existing reliability concerns and on the fact that the transmission system cannot support the forecasted loads for existing customers. Further, LIG in its final submission, at paragraph 53, conceded that this Application is not the appropriate forum for determining what new policies are needed to address load growth in Labrador.⁷ Hydro fully supports all intervenors in the notion that appropriate mechanisms must be established to ensure that future expansions of the transmission system to accommodate new customers are made in the public interest.

IOC and LIG have both contended that the Project should be delayed or denied and that Hydro could deal with capacity constraints in the short term via curtailment of the existing connected data centre load. As previously stated, this would do little or nothing to relieve the reliability concerns of the system.

Hydro submits that curtailing existing customers, or refusing to connect customers, are steps that cannot be taken lightly or arbitrarily, and notes that LIG has referenced subparagraph 3(a)(i) of the power policy provision of the *Electrical Power Control Act, 1994*, however, has conspicuously excluded subparagraph 3(b)(ii), which is of equal importance and reads:

Power policy

3. It is declared to be the policy of the province that

(b) all sources and facilities for the production, transmission and distribution of power in the province should be managed and operated in a manner

(ii) that would result in consumers in the province having equitable access to an adequate supply of power,

⁶ IOC-NLH-033 – Hydro’s 2017 General Rate Application

⁷ Submission of LIG of March 15, 2018, paragraph 53.

The connected data centre customers are currently classified as General Service customers, no different than any other business in the region and pay the same rate. Hydro has acknowledged that it has not had discussions with current or prospective data centre customers regarding rate elasticity.⁸ However, in Hydro's view, it strains credibility to suggest that these current and prospective customers will be driven away by marginally higher rates as a result of the Project given the current low rates in Labrador as compared with other jurisdictions where these businesses are known to operate.⁹

It has been pointed out by IOC, LIG, and the Consumer Advocate that Hydro could apply to the Board, pursuant to section 54(4) of the Act, to be relieved of the obligation to serve a particular individual customer. Hydro would certainly consider such an application should the circumstances demand it. What is far from certain, however, is that this section could be used to apply to an entire group or class of customers such as data centres; or whether it empowers the Board to set a policy of general application - as opposed to hearing and considering each such intended customer's application on its individual merits. Discussions on this point, and with regard to a general strategy to deal with the emerging data centre loads, are of paramount importance. Hydro commits to working with IOC, LIG, the Consumer Advocate, and consulting with local stakeholders to advance that issue in the immediate to near term. However, Hydro again stresses that the importance of this issue, which should not be understated, should not impact the approval of the Project under consideration.

C. Labrador West Transmission Planning Study

It is noted in the responses from the intervenors, that Hydro be directed to expedite its transmission planning study for western Labrador. Hydro notes that this extensive reliability and cost analysis is a priority and that it will be completed as soon as practicable. It is therefore requested that the proposed deadline of Fall 2018 remain unchanged.

Sufficient time is required to ensure that the analysis is robust and that appropriate cost estimates are developed for the various alternatives to be considered. Further, it is noted that Hydro is seeking the support of Hydro-Québec TransÉnergie in an effort to perform cooperative regional transmission planning. Such an approach may introduce new alternatives that could potentially reduce capital costs; however, time is required for the commercial and technical aspects of the cooperative effort.

⁸ Question 1(c), "Attachment 1 – Responses to PUB Questions", submitted by Hydro on March 6, 2018.

⁹ Ibid.

Conclusion

Hydro has provided evidence to show that the Project is not only prudent from a least-cost reliable service standpoint, but urgently required to avoid a reliability issue in Labrador East regarding the supply of electricity for winter 2018/2019. Hydro emphasizes that in its view, all parties have been amply informed of the importance of the Project proceeding and the risks to the Labrador East electrical system in the near term should it be denied.

Hydro respectfully submits that the Muskrat Falls to Happy Valley Interconnection Project should be approved.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



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

cc: Gerard Hayes – Newfoundland Power
Paul Coxworthy – Stewart McKelvey
ecc: Senwung Luk – Olthuis Kleer Townshend LLP
Denis J. Fleming – Cox & Palmer

Dennis Browne, Q.C. – Browne Fitzgerald Morgan & Avis
Benoît Pepin – Rio Tinto
Dean Porter – Poole Althouse