

November 25, 2020

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: 2021 Capital Budget Application – Hydro's Reply

Introduction

Newfoundland and Labrador Hydro ("Hydro") filed its 2021 Capital Budget Application ("Application") with the Board of Commissioners of Public Utilities ("Board") on August 4, 2020¹ seeking approval of \$107.5 million in capital expenditures. In that filing Hydro also sought approval of its 2017, 2018, and 2019 rate base in the amounts of \$2,068,754,000; \$2,265,683,000; and \$2,306,047,000, respectively.

Requests for Information were issued by the Board, Newfoundland Power, the Island Industrial Customer Group, and the Consumer Advocate on September 23, 2020 and from the Labrador Interconnected Group ("LIG") on September 29, 2020. Hydro's responses were filed on October 21, 2020.

Hydro seeks approval of its proposed 2021 Capital Budget projects and 2017, 2018, and 2019 average rate base and, in support of the Application, makes the following submissions.

Legislative Framework

Section 37 of the *Public Utilities Act* ("Act") requires Hydro to provide electrical service and facilities that are safe and adequate and just and reasonable. Section 41 of the *Act* also requires Hydro to obtain approval from the Board for its annual capital budget. In addition, Section 3 of the *Electrical Power Control Act, 1994* ("EPCA") requires that Hydro provide electrical service that is efficient, that allows for its customers to have equitable access to an adequate supply of power, and that is provided at lowest possible cost consistent with reliable service.

Hydro submits that all projects that are before the Board in the Application are required to meet Hydro's obligations under the *Act* and the *EPCA* to provide power and service to its customers that is reasonably safe and adequate and at the lowest possible cost consistent with reliable service. Hydro further submits, and will discuss in more detail later in this correspondence, that all projects proposed in the Application are justified through the inclusion of all necessary and applicable evidence.

¹ Revision 1 was filed on August 7, 2020 and Revision 2 was filed on November 2, 2020.

Party Submissions

Hydro notes that both the Island Industrial Customer Group and Newfoundland Power stated that they had no submissions regarding the Application.

The Consumer Advocate's submission considers the recommendations made by Midgard Consulting Incorporated ("Midgard") in its report filed in the *Capital Budget Guideline Review* proceeding and provides discussion on how Hydro's Application meets those proposed recommendations. The Consumer Advocate supports the Midgard recommendation that the Board approve an envelope of expenditures rather than approve or disprove individual projects. In applying this methodology, the Consumer Advocate recommends that Capital Budget Application investments be capped at 2020 approved levels or less. Since Hydro's Application is for an amount slightly less than its approved 2020 Capital Budget, the Consumer Advocate recommends that the Board approve Hydro's Application. The examination of the current capital budget approval process and Midgard's recommendations for amendment are being examined by the Board and parties as part of a separate proceeding. Hydro will provide its submissions on the Capital Budget Guideline review within that process; however, Hydro notes that the Consumer Advocate had no specific objection to any project proposed within Hydro's Application and in fact recommended approval of the Application in its entirety.

The LIG noted that there were four projects that they were particularly interested in reviewing. Those were the Wabush Terminal Station Upgrades project, the Additions for Load - Wabush Substation Upgrades project, the Additions for Load Growth - Happy Valley Line 7 project, and the Labrador City L22 Voltage Conversion project. Of those four projects, the LIG advised that they were satisfied that the Additions for Load - Wabush Substation Upgrades project, the Additions for Load Growth - Happy Valley Line 7 project, and the Labrador City L22 Voltage Conversion projects are necessary to ensure safe, adequate, and reliable service to ratepayers in Labrador. The LIG advised that they are in support of those projects.

Wabush Terminal Station Upgrades Project²

In its submission, the LIG claimed that Hydro has not provided sufficient information to support the conclusion that the Wabush Terminal Station Upgrades project is a necessary project and requests that the Board not approve the project until sufficient information has been provided. The LIG incorrectly connects the requirement for justification of this project with the operating status of Synchronous Condenser 3 ("SC3") and its ability to provide capacity to Iron Ore Company of Canada ("IOC") and whether the upgrades are required only to prevent Wabush Mines ("Tacora") from experiencing curtailments. It is Hydro's position that the evidence before the Board clearly demonstrates that this project is justified based on the reliability benefits it provides to customers in Labrador West.

Hydro has proposed the Wabush Terminal Station Upgrades project to support Hydro's ability to provide reliable service for customers in accordance with established criteria. This includes the ability to maintain reliable supply in the instance of unexpected failure of system components. An illustration of the benefits of an increase in firm supply is when Hydro can continue to provide uninterrupted service to customers if a transformer fails. Currently, a transformer failure in the Wabush Terminal Station will result in reduced supply available to serve customers. The proposed project eliminates this reliability risk to customers.

In this project, Hydro is proposing the replacement of two transformers, T4 and T5, with new 125 MVA units and the addition of one capacitor bank and associated equipment. Although the project is

² "2021 Capital Budget Application," Newfoundland and Labrador Hydro, rev. 2, November 2, 2020 (originally filed August 4, 2020), vol II, tab 13.

necessary to meet forecasted load growth, it is also (and perhaps more importantly) required to maintain reliable service in western Labrador. As noted in the Wabush Terminal Station Upgrades project report,³ the transfer capability of the existing Labrador West transmission system in winter is insufficient to meet both current and forecast customer load requirements.

The existing system capacity of 350 MW in Labrador West is not firm.⁴ The recommended upgrades are required to firm up both the firm transmission capability and the firm transformation capacity in Labrador West in accordance with established criteria. Without these upgrades, customers in Labrador West are subject to curtailment (e.g., when the existing transformer fails). Currently, any necessary curtailment is of the power supplied to the IOC and Tacora and does not directly impact Hydro's Rural customers. However, this is only due to contractual arrangements between Hydro and the industrial customers, which may be subject to change to ensure the equitable access to an adequate supply of power to all customers. In other parts of the province, if system load curtailment is necessary it is not limited to industrial customers.

Hydro is obligated to provide reliable service to all customers in Labrador West on an equitable basis. Hydro's proposed project will increase the available firm transmission capability and the firm transformation capacity to provide service on a firm basis to all customers in Labrador West.

The LIG also references the current uncertainty around SC3 as a basis for not approving this project at this time. However, Hydro has clearly indicated that the proposed project consists solely of system additions that are necessary regardless of whether or not SC3 becomes a long term option. Hydro notes that SC3 is a reactive power source and has no impact in terms of power transformer capacity at Wabush Terminal Station. The evidence demonstrates that power transformer upgrades are required irrespective of the operational status of SC3.

Additionally, Hydro has demonstrated that the total requirement for additional reactive support is 83 MVar. The reactive capacity of SC3 is only 60 MVar.⁵ Therefore, irrespective of the status of the SC3, Hydro requires an additional 23 MVar which would be provided by the purchase of the 23 MVar capacitor bank proposed in Hydro's Application.

The LIG's statement that the analysis demonstrates that if SC3 were in service no curtailments would be required is also not accurate. The LIG conclusion reflects a misinterpretation of Hydro's analysis provided in its response to LAB-NLH-002 that does not contemplate the curtailment necessary for contingencies involving power transformer or reactive power sources and therefore cannot be used as a basis for assessing overall system reliability.⁶

Hydro has demonstrated the necessity of this project irrespective of the status of the SC3. Any uncertainty regarding that asset does not undermine the justification for the proposed project. The evidence before the Board demonstrates that the proposed project is necessary to ensure reliable service to all customers in Labrador West on an equitable basis and provides a reasonable balance of

³ "2021 Capital Budget Application," Newfoundland and Labrador Hydro, rev. 2, November 2, 2020 (originally filed August 4, 2020), vol II, tab 13.

⁴ As noted in Hydro's "Labrador West System Expansion Study Wabush Terminal Station Recommended Upgrades," July 2020 included as Attachment 3 of the "Wabush Terminal Station Upgrades" project report.

⁵ Hydro will either avail of that option, or of the purchase of a 60 MVar capacitor bank. This will be addressed through a future application to the Board.

⁶ The scope of the analysis presented in Hydro's response to LAB-NLH-002 was as defined in Section 3.2.4 of the "Labrador West System Expansion Study Wabush Terminal Station Recommended Upgrades" report and had the objective of determining the requirement for planned curtailments of industrial customers when ". . . the Labrador West transmission system peak load exceeds 350 MW under normal operations."

service reliability and cost. If approved, the cost of this project will be recovered from all customers on the Labrador Interconnected System with approximately two thirds of the costs recovered through the Labrador Industrial Transmission demand rate. Hydro estimates the rate impact for Hydro Rural customers to be less than 2% when the project is fully in service.⁷

Conclusion

Hydro submits that the capital work for which Hydro has sought approval in the Application are necessary to ensure that Hydro can continue to provide service which is safe and adequate and just and reasonable as required by Section 37 of the *Act*. Hydro further submits that the proposed projects are necessary to enable its customers to have equitable access to an adequate supply of power, and that the proposed projects are the lowest possible cost options, consistent with reliable service as required by the *EPCA*. Hydro respectfully requests that the Board approve the Application as submitted.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



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⁷ Hydro's response to PUB-NLH-007 provided the rate impacts for all projects on the Labrador Interconnected System including the Wabush Terminal Station Upgrades project; these projects are forecast to result in a cumulative rate impact of 10.6% for Labrador Rural customers by 2025. The Wabush Terminal Station Upgrades project is forecast to be complete in 2023 and will be fully reflected in Hydro's rate base by 2024. The cost of this specific project is approximately 23.6% of the total forecast capital costs.