

September 29, 2023

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

Attention: Jo Galarneau
Executive Director and Board Secretary

Dear Ms. Galarneau:

Re: NLH – 2023 Capital Budget Supplemental Application – Approval of the Purchase of a Spare Generator Step-Up Transformer – Newfoundland Power's Comments

Introductory

Newfoundland and Labrador Hydro's ("Hydro") 2023 Capital Budget Supplemental Application (the "Application") for approval of the purchase of a spare generator step-up ("GSU") transformer was filed with the Newfoundland and Labrador Board of Commissioners of Public Utilities (the "Board") on September 21, 2023. In its review schedule for the Application, the Board set today's date as the deadline for comments from parties. These are Newfoundland Power's ("Newfoundland Power" or the "Company") comments with respect to the Application.

Hydro's Application

Hydro's Application requests approval of capital expenditures for the purchase of a spare 172 MVA GSU transformer. GSU transformers are essential to connect Hydro's generation capacity from the Holyrood Thermal Generating Station ("Holyrood" or "HRD"), the Bay d'Espoir Hydroelectric Generating Facility ("Bay d'Espoir" or "BDE"), and other generating facilities to the bulk transmission system serving customers on the Island Interconnected System.

Until 2021, Hydro had not experienced a GSU transformer failure.¹ Since November 2021, Hydro has experienced three GSU transformer failures: one at Holyrood (HRD T2) and two at Bay d'Espoir (BDE T5 and BDE T6). These failures resulted in outages to Hydro's generation capacity in Holyrood and Bay d'Espoir. Generating capacity was restored at Holyrood Unit 2 and Bay d'Espoir Unit 5 using spare GSU transformers. Hydro is in the process of installing the recently refurbished BDE T5 GSU transformer to return Bay d'Espoir Unit 6 to service.²

Hydro plans to refurbish BDE T6 which will serve as Hydro's only spare GSU transformer. As a spare GSU transformer, BDE T6 will provide limited ability for Hydro to respond to additional GSU transformer failures. A refurbished BDE T6 is not capable of replacing any GSU

¹ Schedule 1: Purchase Spare Generator Step-Up Transformer, page 1, line 7.

² Schedule 1: Purchase Spare Generator Step-Up Transformer, page 2, line 9 to page 3, line 5.

Newfoundland Power Inc.

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transformer associated with the three Holyrood generating units and would not be able to restore the full generating capacity associated with Bay d'Espoir Unit 7.³

The amount of time that is necessary to procure a GSU transformer, combined with the impact on Hydro's generation if there were to be more than one additional GSU transformer failure, a failure of *any* GSU transformer at Holyrood, or a failure of the GSU transformer associated with Bay d'Espoir Unit 7, has serious implications for system reliability.⁴ Given the lengthy delivery time of a GSU transformer, a significant portion of Hydro's generation supply could remain offline for more than two years while a replacement GSU transformer is procured, installed and commissioned.⁵

Hydro is proposing a project schedule that includes the procurement of a spare GSU transformer that is capable of supporting Holyrood Units 1, 2, and 3, Bay d'Espoir Unit 7, and other generating units by September 2026.⁶ This project, estimated to cost \$7,466,900 over four years, is necessary to return Hydro's spare GSU transformer fleet to the status quo.⁷

Newfoundland Power's Comments

Newfoundland Power purchases approximately 93% of the energy required to supply its customers from Hydro. Delivery of reliable electricity from Hydro is therefore critical to Newfoundland Power's ability to provide reliable service to its customers.

Hydro has experienced three GSU transformer failures since 2021. In the event of a further GSU transformer failure associated with Holyrood Units 1, 2, or 3, Hydro would lose the capacity associated with the affected Holyrood Unit. In the event of a GSU transformer failure associated with Bay d'Espoir Unit 7, available capacity from Unit 7 would be reduced. If Hydro were to experience more than one GSU transformer failure, Hydro's available capacity could diminish further.

Given Hydro's proposed schedule to procure a new GSU transformer by September 2026, Hydro expects to operate its system without the redundancy it has traditionally relied upon for at least the next three winter seasons (2023-2024, 2024-2025, and 2025-2026). In Newfoundland Power's view, a lack of adequate spare GSU transformers has significant implications for system reliability and increases the vulnerability of electricity supply from Hydro.

Newfoundland Power does not object to Hydro's Application. The Company submits that Hydro procure a spare GSU transformer as expeditiously as possible. Newfoundland Power further submits that Hydro assess the implications of a further GSU transformer failure in its upcoming

³ Application, Paragraph 4.

⁴ Hydro's letter Re: Application for Approval of Capital Expenditures for the Purchase of a Spare Generator Step-Up Transformer.

⁵ Schedule 1: Purchase Spare Generator Step-Up Transformer, page 4, line 20 to page 5, line 2.

⁶ Schedule 1: Purchase Spare Generator Step-Up Transformer, page 1, lines 24 to 26 and page 8, Table 4.

⁷ Schedule 1: Purchase Spare Generator Step-Up Transformer, page i, lines 19 to 23.

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Near-Term Reliability report. The assessment should specifically address the implications of a further GSU transformer failure at Holyrood during the upcoming 2023-2024 winter season and how Hydro would address such an event.

We trust this is in order. If you have any questions regarding the enclosed, please contact the undersigned.

Yours truly,



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