Q. **Reference: Reliability and Resource Adequacy Study 2022 Update, Volume III, page 50, line 9 to page 51, line 5.**

Has Hydro considered a gas turbine as an alternative to Bay d'Espoir Unit 8? If yes, provide Hydro's best estimate of the time to place each in service, and provide the annual amounts saved by earlier ending of service by the Holyrood occasioned by which of these two options can be placed in service more quickly. If Hydro has not considered a gas turbine as an alternative, explain why not.

A. Combustion turbines have been considered as part of the resource options considered to determine the optimal resource mix.[1] As stated in the "Reliability and Resource Adequacy Study – 2022 Update" ("2022 Update"), previous analyses have identified Unit 8 at the Bay d'Espoir Hydroelectric Generating Facility ("Bay d'Espoir Unit 8") as the least-cost expansion option on the Island Interconnected System.

Newfoundland and Labrador Hydro ("Hydro") is currently undertaking the necessary steps to determine and evaluate all alternative supply options available to ensure reliability and meet future load growth, including combustion turbines, with the intention of providing the results of this evaluation to the Board of Commissioners of Public Utilities in the Reliability and Resource Adequacy Study – 2023 Update. In addition, the project documentation necessary to prepare an application for regulatory approval to construct Bay d'Espoir Unit 8 will include a comparison against other potential resource options, such as combustion turbines. This analysis will include costs associated with the potential reduction in generation at Holyrood Thermal Generating Station, as well as all other economic factors including capital costs, fixed and variable operation and maintenance costs, fuel costs, and other system costs associated with the comparison of expansion options. As per Hydro's response to NP-NLH-077 of this proceeding, Hydro will also

[1] As noted in the "Reliability and Resource Adequacy Study – 2022 Update," Newfoundland and Labrador Hydro, October 3, 2022, the proposed Clean Electricity Standard has brought into question resource options such as a fossil-fuel burning combustion turbine, which would traditionally have been recommended but now have an uncertain position as a future resource option.

be working to assess the potential impacts of Clean Electricity Regulations developed by Environment and Climate Change Canada.

Based on current estimates, the time to place a combustion turbine in-service is a minimum of four years while the time to place Bay d'Espoir Unit 8 in service is a minimum of seven years following regulatory approval.