Q. **Reference: Attachment 1- Long-Term Supply for Southern Labrador - Economic and Technical Assessment**

Further to the response to NP-NLH-021, page 1 of 1, lines 6-12:

a) The Port Hope Simpson diesel generating station has three units with an installed capacity of 1,725 kW with a total firm capacity of 1,000 kW. The load forecast indicates a forecast peak load of 627 kW in 2021 for Port Hope Simpson growing to 647 kW by the year 2070. While it is acknowledged that Port Hope Simpson exceeds its design plant capacity of 1500 kW, please explain why Hydro is of the view that an extension to the Port Hope Simpson diesel generating station "would be unavoidable given the current forecasted growth" for Port Hope Simpson when it appears that there is ample firm capacity available to accommodate forecasted growth up to the year 2070?

b) The St. Lewis diesel generating station has three units with an installed capacity of 1,020 kW with a total firm capacity of 565 kW. The load forecast for St. Lewis indicates a peak load of 329 kW in 2021 and remaining there up to the year 2070. Given that the design plant capacity of 2000 kW and firm capacity of 565 kW appear more than adequate, please confirm that it is the "existing conditions" associated with the St. Lewis diesel generating plant that is driving the need for replacement. If confirmed, please identify the existing conditions that are driving the need for replacement. If not confirmed, please identify the driver for replacement.

A. a) Newfoundland and Labrador Hydro ("Hydro") expects significant work and capital cost would be required in the future to address the anticipated condition of the diesel generating station. This work would consist of a major refurbishment and may not necessarily include a diesel generating station extension. Although the diesel generating station's current capacity is sufficient to meet the existing and forecast load, Hydro would assess its load forecasts when determining the scope of required upgrades, to determine if expansion of the diesel generating station is warranted at that time. This would be investigated in detail

when the need arises and at that time Hydro would propose the scope of work that leads to the continued supply of reliable power at the lowest possible cost.

b) The expected replacement date for the St. Lewis Diesel Generating Station is based on an expected service life of approximately 40 years. There are no current conditions driving the diesel generating station's replacement date. Rather, the assumed replacement date is based on Hydro's operational experience in monitoring the condition of aging diesel generating station assets. While Hydro has historically replaced diesel generating station on the basis of load growth or catastrophic events, the condition of assets at the point of replacement has provided Hydro with a basis for the 40-year baseline life cycle. The use of a 40-year life leads to a projected replacement requirement in the year 2045.