Q. **Reference: 2018 Cost of Service Methodology Review Report dated November 15, 2018**

On page 14 (lines 24 to 25) it is stated *"Hydro recommends that all functionalized transmission costs be classified as 100% demand related. This is consistent with the approach currently used in the cost of service study."* Hydro states (2017 GRA Volume I, page 3.25, lines 15 to 18) *"The reduced production forecast for Hydro's Island Interconnected System gas turbines and diesels for 2017 through to the 2019 Test Year reflect the reliability benefit of the planned in service of a third transmission line from Bay d'Espoir to Western Avalon (TL267)."* Further, Hydro states that the new transmission line will reduce transmission system losses (2017 GRA Volume I, page 3.28, line 18), and will enable more efficient use of, and decreased spill from, hydro generation (IC-NLH-090). These statements suggest that transmission does provide energy benefits, which appears to be contrary to Hydro's proposal to classify 100% of transmission costs as capacity-related. Please explain.

A. At a very fundamental level, transmission lines are added to a grid to move generation capacity to load centres. In other words, transmission lines are constructed to supply the forecast peak demand of the load regardless of the functionalization used in Cost of Service studies. If transmission lines within the grid were unable to deliver the peak demand, customer outages would ensue.

The Board of Commissioners of Public Utilities' (the "Board") Proposed Cost of Service Methodology, February 1993,[1] ("1993 Cost of Service Report") states on pages 43 to 44:

[1] "A Referral By Newfoundland and Labrador Hydro for The Proposed Cost of Service Methodology and a Proposed Method for Adjusting its Rate Stabilization Plan to Take Into Account the Variation in Hydro's Rural Revenues Resulting from Variations in the Rates Set by the Board to be Charged by Newfoundland Light & Power Co. Limited to its Customers," Board of Commissioners of Public Utilities, February 1993.

The Board accepts Dr. Sarikas' position that transmission line costs correlate almost completely with their capacity and therefore are attributable to the demands placed on them. This would certainly justify a 100% demand classification for lines performing a general transmission function.

However, the testimony shows that lines performing special functions have in other jurisdictions been deemed to warrant some degree of energy classification. The Board must therefore consider under what particular circumstances, if any, transmission lines might properly be classified partly to energy in Newfoundland.

On page 44 of the 1993 Cost of Service Report:

Recommendation 15:

That transmission lines and substations in the Island Interconnected System used solely or dominantly for the purpose of connecting remotely-located generation to the main transmission system be classified in the same manner as the generating stations they serve.

Recommendation 16:

That all other transmission be classified 100% to demand.

Transmission line TL 267 between Bay d'Espoir and Western Avalon is an addition to the main transmission system (or grid) necessary to ensure that the transmission planning criteria are met based upon the forecast demand and system changes due to the integration of the Labrador -Island Link ("LIL") into the Island Interconnected System and the changing role of the Holyrood Thermal Generating Station.

An inherent effect of the TL 267 addition is increase transmission capacity between Bay d'Espoir and the Avalon Peninsula. This added transmission capacity reduces the

transmission demand losses and permits better use of the off Avalon hydroelectric resources.

It should be noted that demand is a measure of usage at an instant in time. Energy is the accumulation of demand over time. At time of system peak, one obtains the peak demand. The main transmission system must be capable of delivering the peak demand. Given that transmission lines are constructed to serve the forecast peak demand, and that the Board has accepted the position that "transmission line costs correlate almost completely with their capacity and therefore are attributable to the demands placed on them", Newfoundland and Labrador Hydro believes its proposal to classify 100% of TL 267 transmission costs as capacity-related is justified.