Q. Please provide two versions of the COS Model in spreadsheet form:
(i) Model using method proposed by Hydro; and
(ii) Model using method currently approved by the Board.

A. Please refer to the excel document provided as PUB-NLH-013, Attachment 1 for the Cost of Service Model using the method proposed by Newfoundland and Labrador Hydro ("Hydro") and the excel document provided as PUB-NLH-013, Attachment 2 for the Cost of Service Model using the method currently approved by the Board of Commissioners of Public Utilities (the "Board").

Hydro notes the following list of changes and assumptions for the method currently approved by the Board (the "Existing Method") and the method proposed by Hydro (the "Proposed Method"):

- Classification of Wind Purchases: Hydro proposed to classify wind purchases as 22% demand-related in the Proposed Method. Under the Existing Method wind purchases are classified as 100% energy and 0% demand-related.

- Under Existing Method, all functionalization and classification of the Muskrat Falls project power purchase costs are consistent with the Proposed Method.

- Under the Existing Method, TL 234 and TL 263 are functionalized as generation (i.e., treated as generator leads). This differs from the functionalization as transmission in the Proposed Method.

- Under the Existing Method model, the bulk transmission losses on the Island Interconnected System were calculated as 3.5% based on a historical average loss factor approach. This differs from the 2.9% average forecast 2021 bulk transmission losses as filed in the Proposed Method for the 2021 Cost of Service. Based on

review of the previous methodology approval, it appears that the transmission loss approach is not formally approved. In the "2017 General Rate Application," Rev. 5, Vol. I, Ch. 3, at p. 3.21/1-6, Hydro stated"

> **Losses**
> The enhanced Island Interconnected System Vista model has a more detailed representation of Hydro's transmission system. The model calculates losses based on the flow of energy between areas of Hydro's system, using dynamic loss equations. This allows losses to be modelled more accurately than in Hydro's previous rate filings. As such, losses included in the Island Interconnected System have been forecast using Hydro's Vista model.

No Party took issue with this change so Hydro notes one could also view the Existing Method to reflect the forecast transmission losses as filed. The reduction in losses from historical average is partially related to the new TL 267 from Bay d'Espoir to Western Avalon completed in 2017.

Power purchases from Muskrat Falls and Recapture Energy are reflected in kWh purchases as delivered to the Island at Soldier's Pond. Therefore, transmission losses in Labrador are not reflected in transmission losses in the cost of service study for the Island Interconnected System (i.e., for both Existing Method and Proposed Method). Changes in transmission losses on the Island Interconnected System are assumed to impact the amount of energy Hydro has available to export.