

1 **Q. Reference: Volume II, Exhibit 4, Section 2.1.1, page 3**

2 **a)** Is the increase in Island Interconnected system losses primarily attributed to load flows
3 over the Labrador Island Link? Explain.

4 **b)** From a cost-of-service perspective, is the delivery point of energy from Muskrat Falls to
5 the Island metered as purchases at Soldier's Pond? If not, why not?

6 **c)** Provide the derivation of the Island Interconnected system loss forecast, distinguishing
7 the 120 GWh associated with bulk island deliveries from the 207 GWh associated with
8 export flows, and identify the loss study and vintage relied upon.

9 **d)** Provide the sensitivity of the Island Interconnected system loss forecast to export
10 volumes.

11 **e)** Reconcile the loss quantities in Schedule A-I with the 3.44% five-year average loss factor
12 used in the non-firm rate.

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15 **A. a)** The majority of the increase in losses can be attributed to load flows over the Labrador
16 Island-Link ("LIL") and associated exports over the Maritime Link. There are incremental
17 losses associated with moving energy from the LIL across the Island Interconnected System
18 for export over the Maritime Link. This is partially offset by energy over the LIL supplying
19 Island Interconnected System load, which results in a net decrease in east-west flow on the
20 Island Interconnected System and reduces transmission losses.

21 The losses on the LIL are not included in the 327 GWh of losses in the 2027 Test Year.

22 **b)** Yes, from a cost-of-service perspective, energy delivered from Muskrat Falls to the Island is
23 metered at Soldiers Pond.

24 **c)** Island Interconnected system losses in 2027 Test Year are derived from the PLEXOS
25 production plan model, which has representations of the Newfoundland and Labrador

1 Interconnected transmission system to simulate system losses. The 120 GWh figure is based
2 on the components that relate to on-Island generation and on-Island load. The 207 GWh
3 figure is related to components in the model that relate to flows over the Maritime Link.

4 **d)** Island Interconnected System losses are impacted by export values over the Maritime Link.
5 Under a scenario where the exports on the Maritime Link were limited to the Energy and
6 Capacity Agreement deliveries (decreased by 63% of the forecasted Maritime Link exports in
7 2027 Test Year) the losses reduced by 39%. In another scenario where the Maritime Link
8 exports were disabled, the losses were reduced by 41%. It is important to note that these
9 losses are not linear and depend on many factors, including unit dispatch, timing of exports
10 and flows over the transmission system.

11 **e)** Please refer to Newfoundland and Labrador Hydro's response to part a) of PUB-NLH-060 of
12 this proceeding.