

1 Q. In reference to section 5.1.2 of the Teshmont Report, please provide details of any
2 modifications/ upgrades that may be required to IIS transmission or terminal
3 stations due to the Maritime Link. Please provide cost estimates for those
4 modifications/upgrades.

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7 A. Details of any modifications and upgrades to the IIS transmission or terminal
8 stations due to the Maritime Link are summarized in the sections below.

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10 **TL269**

11 Please see Hydro's response to IC-NLH-092 for detail relating to this 230 kV
12 transmission line.

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14 **Bottom Brook Terminal Station Upgrades**

15 A new terminal station (Bottom Brook Terminal Station #2) will be constructed near
16 the existing Bottom Brook Terminal Station to allow for the interconnection of
17 TL269 and the two HVdc poles of the Maritime Link. The new terminal station
18 configuration shall consist of a breaker-and-a-half scheme for 230 kV
19 interconnections. Included in these 230 kV interconnections are the existing lines,
20 TL209, TL211 and TL233, and the existing two 230kV/138kV transformers, T1 and
21 T3. The existing 138kV transmission lines and transformer T2 will remain in the
22 existing Bottom Brook Terminal Station.

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24 **Upper Salmon Circuit Breaker Addition**

25 At present the Upper Salmon Terminal Station 230 kV bus is configured as simple
26 load bus arrangement. To increase reliability, a 230 kV breaker addition is being
27 added to establish a 230 kV ring bus.

1 **Bay d'Espoir 230 kV Line Swap**

2 At present the two 230 kV transmission lines connecting Bay d'Espoir #1 and Stony
3 Brook Terminal Stations (TL204 and TL231) are separated on the Bay d'Espoir 230
4 kV ring bus by a single 230 kV circuit breaker. The arrangement will result in the loss
5 of both TL204 and TL231 with subsequent isolation of the Bay d'Espoir plant from
6 central/western Newfoundland for a breaker fail following a fault to one of the two
7 230 kV transmission lines. To improve reliability to the western portion of the 230
8 kV system the termination of TL231 will be relocated to Bay d'Espoir Terminal
9 Station 2.

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11 As all capital costs associated with these system modifications are to be paid by
12 Emera, costs estimates are beyond the scope of this investigation.