

1 Q. On page 16 of the Upgrade Transmission Line Corridor Report (“Report”) Hydro
2 states that the third transmission line from Bay d’Espoir to Western Avalon is
3 necessary for both the isolated system alternative and the HVdc intertie. Do the
4 post contingency and steady state issues outlined in the Report exist in either
5 alternative? Explain your response in detail.

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8 A. The isolated system alternative would involve the addition of system capacity in the
9 form of hydroelectric generation in the western portion of the province. Generation
10 sources include:

- 11 • Island Pond – 36 MW
- 12 • Round Pond – 18 MW
- 13 • Portland Creek – 23 MW

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15 These sources are all located west of Bay d’Espoir and a continued Isolated Island
16 scenario would see an increase in the loading of transmission lines in the Bay
17 d’Espoir to Western Avalon corridor. Without system reinforcement, supply to load
18 centers on the Avalon Peninsula from these sources is constrained to existing limits
19 due to the thermal limitations of transmission lines as well as transient stability
20 considerations. Post contingency and steady state issues in the Bay d’Espoir to
21 Western Avalon corridor also persist in the isolated system alternative.

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23 A summary of the impact of the thermal limitations of transmission lines is provided
24 in Appendix A. A comparison of the transient stability of the existing system with
25 the transient stability of the system after the addition of the Labrador-Island HVdc
26 Link is discussed in Hydro’s response to NP-NLH-009.