

1 Q. Further to PUB-Nalcor-153, with reference to pg. 2 of the Report referred to in PUB-
2 Nalcor-151, what are the potential solutions to the issues identified: i) under the
3 Isolated Island Scenario; and ii) under the Labrador Infeed Scenario?

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6 A. The only issue identified with the Bay d’Espoir east transmission system in the
7 Isolated Island Scenario is inadequate transfer capacity onto the Avalon Peninsula.
8 Construction of a new 230 kV transmission line between Bay d’Espoir and Western
9 Avalon rectifies this problem and no further transmission upgrades are anticipated.

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11 For the Interconnected Island Scenario, system stability for certain AC faults is an
12 issue. The stability problems can be mitigated by either:

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14 (1) addition of 50% series compensation on the existing transmission lines TL 202
15 and TL 206 between Bay d’Espoir and Sunnyside along with the installation of
16 a 200 MVAR static var compensator (SVC) at Sunnyside, or
17 (2) construction of a new 230 kV transmission line between Bay d’Espoir and
18 Western Avalon with no requirement for series compensation or SVCs.

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20 While either option provides acceptable operating performance, the new
21 transmission line is preferable, as imports over the Maritime Link can be delivered
22 to the Avalon Peninsula using the increased transfer capability between Bay
23 d’Espoir and the Avalon Peninsula in the remote event of a Labrador-Island
24 Transmission Link bipole outage.