

1 Q. In Appendix C8 on page ix it is recommended that a more complete study be
2 undertaken to evaluate the use of VSC HVDC technology. Has this study been done?
3 If so, please provide a copy.

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6 A. Appendix C8, titled “DC1210 – HVdc Sensitivity Studies: Final Summary Report”, was
7 prepared in July 2010 as part of the planning for the Labrador Island Transmission
8 Link. The study was filed as Confidential Exhibit CE-10 with the Board as part of the
9 Muskrat Falls Review.

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11 The DC1210 report recommended that additional studies be undertaken to
12 evaluate the use of Voltage Source Converter (VSC) technology, and two additional
13 studies relating to the use of VSC technology were filed with the Board as
14 Confidential Exhibits CE-62 and CE-63 as part of the record for the Muskrat Falls
15 Review.

16
17 Both VSC and LCC systems required the addition of the same level of system inertia
18 in the form of high inertia synchronous condensers; the LCC required additions to
19 maintain system performance through ac faults and the VSC required the same
20 additions to maintain system performance through dc faults.

21
22 In addition, VSC technology does not offer the overload capability provided by an
23 LCC converter, and overload capability is a critical feature required to maintain
24 reliability on the Island Interconnected System.

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26 A contract has been executed with Alstom Grid for LCC converters for the Labrador
27 Island Transmission Link.