

1 Q. From discussions with Nalcor, MHI understands that the transmission line sections
2 have been designed to different requirements due to varying geographical and
3 environmental conditions. Please provide a copy of this design. Provide any
4 transmission line design concept documents, detailed design reports, drawings,
5 tower designs, cost estimates, line route selection details, transmission line
6 reliability design criteria, risk analysis, for the HVDC overhead transmission line, and
7 associated AC transmission lines from the Converter stations
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10 A. Nalcor has applied results from extensive research, long term monitoring, and
11 operational experience in the development of design criteria for the Labrador Island
12 Transmission Link. The results of these work activities are compiled and
13 summarized in Exhibit 97 - Meteorological Loading Review.
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15 Appendix A of Exhibit 97 provides a geographical reference for the 11 different line
16 sections developed based on meteorological loading. The meteorological loading
17 for these areas and design criteria are presented in Section 3. The regions have
18 been categorized as follows:
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20 1) Average Sections (6 sections in central and northern Newfoundland as well as
21 Labrador). The governing design in these sections is wind loading, based on a
22 maximum 176 km/h (110 mph) gust. Radial glaze ice loading in these regions is
23 50 mm.
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25 2) Eastern Section. The governing design is 75 mm radial glaze ice loading.
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3) Alpine Sections (4 sections in central and northern Newfoundland). These sections are subject to rime icing due to their elevation and topographical features. Further study is ongoing in these areas using numerical weather models and data from test spans located in the Long Range Mountains in western Newfoundland.

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The design details requested in this question are not available, as these issues are the subject of detailed design efforts by SNC Lavalin and will not be completed before 2012.

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