

1 **Q: Reference: *Review of Newfoundland and Labrador Hydro Power Supply Adequacy***  
2 ***and Reliability Prior to and Post Muskrat Falls Final Report, Page 36.***

3  
4 *"Experience from other bipolar HVdc systems shows that most modern HVdc schemes*  
5 *do not experience bipole trips (simultaneous loss of both poles) very frequently -- only*  
6 *every few years."*

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8 **Please comment on how the projected reliability of the Labrador Island Link can**  
9 **be deduced from other bipolar HVdc projects knowing that the Labrador Island**  
10 **Link passes through one of the most severe climates in the world with regards to**  
11 **icing and wind.**

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14 **A.** Liberty agrees that it is not possible to accurately predict the reliability performance  
15 of a particular HVdc scheme. The actual reliability will depend on the many factors,  
16 as was said in section IV-C-1, page 74:

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18 *It is not possible to forecast the number of outages (bipolar or monopolar) with*  
19 *substantial accuracy. The number of equipment failures depends on the quality*  
20 *of the design, manufacture, and maintenance of the equipment, and on the*  
21 *stresses to which it is exposed. The general tendency is for a higher number of*  
22 *failures in the first couple of years of operation, with the number then settling*  
23 *down to a lower level for many years, until aging causes the number of failures*  
24 *to increase again.*

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26 The general tendency as mentioned above may not be relevant to the overhead line  
27 parts of the LIL, which uses an HVdc OHL that runs through regions with extreme  
28 weather. The weather conditions may have a more significant impact on the number  
29 of outages of the HVdc OHL.