

1 **Q: Reference: *Review of Newfoundland and Labrador Hydro Power Supply***  
2 ***Adequacy and Reliability Prior to and Post Muskrat Falls Final Report, Pages 71-***  
3 ***72, Table IV.6: Composite Island Link Bipole Reliability, and the response to***  
4 ***Request for Information NP-NLH -139.***

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6 **In the response to Request for Information NP-NLH-139 Hydro indicates that a**  
7 **failure rate of 0.1 failures per year per bipole should be applied and that the**  
8 **structural failure rate of 0.002 per year should be applied for the section of the**  
9 **Labrador Island Link on the Avalon Peninsula and 0.00667 per year should**  
10 **apply to other sections.**

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12 **Based on Liberty's experience, does the response to Request for Information**  
13 **NP-NLH-139 provide a reasonable basis to expect the frequency of outages**  
14 **from the Labrador Island Link to be considerably better than the failure rates**  
15 **shown in Table IV.6?**

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18 **A.** It is Liberty's understanding that, notwithstanding Hydro's responses to NP-NLH-  
19 133 and 139, Hydro is using an average bipole failure rate of the OHL of 0.02 per  
20 100 km per year, as recommended by SNC-Lavalin. Hydro argues that, since tower  
21 collapse is supposedly the *only* cause of an OHL bipole failure, the design return  
22 periods for tower failure (1:500 years on the Avalon and 1:150 years elsewhere)  
23 should govern (see NP-NLH-133). This would result in a far lower failure rate than  
24 the SNC-Lavalin recommended value of 0.02.

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26 The reasonableness of this logic is moot, since Hydro is using the higher SNC-  
27 Lavalin estimate. Nevertheless, Liberty would not find Hydro's logic sufficient to  
28 justify the use of a lower failure rate in any event since (1) limiting bipole trips to  
29 only tower collapse is not necessarily a good assumption, (2) the consequences of  
30 tower collapse are so severe that a conservative approach is appropriate, and (3) we  
31 have no information or basis for which to challenge the SNC-Lavalin recommended  
32 failure rate, which is based largely on Cigre data (PUB-NLH-212, Attachment 2).