

1 Q. Reference: *Probabilistic Based Transmission Reliability Summary Report*, Appendix  
2 A, Page 28 of 56.

3 *“The forced outage rates and availability of the HVDC systems are highly dependent*  
4 *on their design, installation, and location...Therefore, unless details of a specific*  
5 *system are available, an accurate estimate of its forced outage rates and availability*  
6 *cannot be calculated. For the purpose of this study, Teshmont is planning to use the*  
7 *following values which are based on the information that was provided to Teshmont*  
8 *by Nalcor Energy.”*

9 Please describe in detail the extent to which Teshmont was able to review the  
10 design, installation, and location details of the Muskrat Falls project, Labrador  
11 Island Link, and Maritime Link to determine the appropriateness of the values it  
12 used in its probabilistic based transmission reliability assessment. In the response,  
13 please indicate what limitations, if any, Teshmont had to obtaining the design,  
14 installation, and location details associated with the Labrador Island Link?

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17 A. All the information used to develop the analysis of this study has been listed in the  
18 Reference section of Teshmont’s study report (“Probabilistic Based Transmission  
19 Reliability Assessment – Island Interconnected System”) (reference number 1 to 7).  
20 Teshmont believes that Nalcor has released all possible information that would be  
21 useful as an input to the study at that time. Also, Teshmont believes that Nalcor had  
22 made every possible effort to answer all questions related to the core assumptions  
23 of this study. Based on this information, Teshmont developed the different input  
24 parameters for the analysis such as failure rates and repair times. At that early  
25 stage of the project, it was a common understanding that all details may not be  
26 available. The numbers provided by Nalcor Energy were based on assumptions  
27 related to the design (e.g. availability of spare equipment with long lead time such

1 as transformers or smoothing reactors) and the allocation of the LIL converter  
2 stations (e.g. the physical location of Soldiers Pond and/or Muskrat Falls converter  
3 stations). If some of these assumptions change in the future, some fine tuning of  
4 the failure rates and repair times may be needed; however, no change is expected  
5 to the study's core conclusion.