

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 Given the above statement and the fact that the data used in the analysis was  
10 based on a limited number of HVdc systems, what precautions would Teshmont  
11 advise in the interpretation of its results?

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14 A. The above part of the report highlights the dependency of the failure rate and  
15 repair time on the details associated with the design, location, installation, etc.  
16 However, the pool of data represented by CIGRE covers a wide time span (from  
17 1999 to 2010) and HVdc systems from all over the world. Technically, this CIGRE  
18 database is considered a typical foundation for such reliability studies. However,  
19 while future final details regarding the design, installation, location and other  
20 parameters will fine tune the failure rates and repair times they will not change the  
21 core conclusion of the study.