

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

3 *“Taking into account the forecasted duration of load levels throughout the year, the*  
4 *exposure to expected unserved energy due to outages of units G1 and G2 would be*  
5 *expected for up to 12% of the year. Meanwhile, the exposure to expected unserved*  
6 *energy due to all Holyrood units combined outage would be up to 18% of the year.”*

7 Please explain whether or not Teshmont has conducted any benchmarking analysis  
8 using actual Hydro electrical system performance to validate its probabilistic based  
9 transmission and generation assessments. If so, please describe how close the  
10 assessment reflects actual electrical system performance.

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13 A. The quote presented in the question above does not relate to the performance of  
14 generation nor transmission assets. Rather, the quote reflects the results of load  
15 flow analysis where exposures for unserved energy were evaluated with respect to  
16 load duration curves.

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18 The validation of probabilistic based transmission and generation assessments are  
19 found in the report. For example, Section 4.3 of the report includes validations of  
20 the reliability indices that Hydro uses for generating units with calculated values  
21 using historical data. This is shown on page 15 of the report in the unavailability  
22 values for Holyrood units.

23

24 Ac transmission line performance is calculated directly from historical data.