

1 Q. **Reference: PUB-NLH-103(a) and (b); CA-NLH-146 and Attachments 1 and 2; Exhibit 16; Volume**
2 **I, Section 6.3.1**

3 a) Provide the average Effective Load Carrying Capability calculation of the existing 54 MW
4 of wind capacity, expressed as a percentage.

5 b) If Hydro maintains that the average does not differ significantly from the marginal value
6 at 50 MW, reconcile that position with the declining marginal Effective Load Carrying
7 Capability curve in Exhibit 16, which falls from 43 percent at 50 MW to 38 percent at
8 100 MW.

9 c) Provide an Effective Load Carrying Capability for the existing 54 MW computed against
10 the 2027 Test Year system with Holyrood TGS in service.

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13 A. a) By interpolating the incremental Effective Load Carrying Capacity ("ELCC") of wind at 50 and
14 100 MW, assuming that the marginal ELCC decreases in a straight line between, the ELCC of
15 45 MW of wind can be calculated at 42.97%. In reality, the ELCC would be slightly closer to
16 43% because the relationship is non-linear.

17 b) Based on the above calculation, the difference between using 43% and the calculated value
18 of 42.97% is 0.02 MW. This is not a material difference in the ELCC calculation.

19 c) As stated in Newfoundland and Labrador Hydro's response to PUB-NLH-103 of this
20 proceeding, the ELCC study was intended for the purposes of long-term resource planning
21 and would not typically be used for near-term analysis. Applying the ELCC curve in the
22 report to the 54 MW of existing wind capacity in the 2027 Test Year would result in an ELCC
23 of 42.97% or 23.20 MW.