

1 Q. **Reference: NLH-NP-050**

2 It is stated *“The Company’s capital planning process is a deliberate effort to balance the cost and*
3 *reliability of service provided to customers. As such, there are no incremental costs to customers*
4 *to continue receiving current levels of reliability.”*

5 a) Does Hydro incur incremental costs to maintain current levels of reliability on its
6 distribution system? If so, why does Hydro not use the same approach as Newfoundland
7 Power so that there is no incremental cost associated with maintaining current levels of
8 reliability?

9 b) Is it common knowledge in the industry that maintaining current levels of reliability
10 results has no incremental cost? Please cite any references.

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13 A. a) While Newfoundland and Labrador Hydro (“Hydro”) would generally agree that maintaining
14 current levels of reliability would require investment consistent with current levels, Hydro
15 believes that there are incremental costs associated with achieving better-than-average
16 reliability, compared to that required to achieve average Canadian reliability. While Hydro
17 strives to achieve the Canadian average for its distribution customers, significant
18 improvements to Hydro’s current reliability levels would require substantial incremental
19 transmission and distribution investment above and beyond its current levels of investment.

20 b) Hydro believes it is generally understood that reliability is correlated with the cost to
21 provide service. The relationship between cost and reliability has also been noted and
22 confirmed in academic research; for example, a study completed by the University of
23 Saskatchewan concluded that:

24 It is neither practically realizable nor economically justifiable to attempt to
25 create an absolutely reliable power system. The continuity of energy supply can
26 be increased by improved system structure, increased investment during either
27 the planning and construction phase, operating phase or both. Over-investment
28 can lead to excessive operating costs, which must be reflected in the tariff
29 structure. On the other hand, under-investment can result in an inadequate

1 system. It is evident therefore that reliability and economic constraints can
2 compete, and can lead to difficult managerial decisions at both the planning and
3 operating phases.¹

¹ Peng Wang, "Reliability Cost/Worth Considerations in Distribution System Evaluation," University of Saskatchewan, Saskatoon, 1998, p. 180. <https://www.collectionscanada.gc.ca/obj/s4/f2/dsk1/tape8/PQDD_0016/NQ37921.pdf>