Q. Reference: Muskrat Falls Review: Exhibit 85 – Reliability Study of Transmission Lines on the Avalon and Connaigre Peninsulas

Exhibit 85 – Reliability Study of Transmission Lines on the Avalon and Connaigre Peninsulas, states on page 4 of 212:

"It is shown clearly that these load values far exceed the original design loads and even a 5-year return period ice load exceeds the ultimate capacities of many of these lines on the Avalon Peninsula. This indicates that the reliability of the line is very low and does not meet the commonly accepted target design loading of 50-year return period which is estimated to be 3.0 inches (75mm) radial of glaze ice."

Given that Hydro's own data and experience indicates that the 1:50 year ice load on the Avalon Peninsula is 75mm, please explain in detail, why Hydro chose instead to use the 1:50 year reference ice load of 40mm from Figure CA.10 of CAN/CSA-C22.3 No. 60826-10 to calculate the 1:500 year return period load?

A. It is incorrect to state that Hydro's own experience indicates the 1:50 year structure ice load on the Avalon Peninsula to be 75 mm; rather a study completed almost 20 years ago in 1996 indicated this to be the case. The current version of the CSA standard indicates the 1:50 year structure load to be 60 mm.

As indicated in Hydro's response to NP-NLH-069, while the most recent data available is from CAN/CSA-C22.3 No. 60826-10, the results from Exhibit 85 were used as minimum criteria.