Q. **Tab 14; Volume II: Wood Pole Line Management Program (2018)**
Hydro states on page 9, line 6, that "Prior to the 2016 inspection program, it was estimated that three poles would require replacement on TL232 in 2016. However, upon completion of the 2016 inspections it was determined that sixteen poles required replacement." Was there any analysis undertaken to determine why the number of poles needing replacement was significantly higher than estimated? If so, please provide the analysis. If not, please explain the rationale for not doing so.

A. Analysis was not undertaken to determine why the number of poles needing replacement was significantly higher on TL232 than originally estimated.

The rationale for not conducting an analysis is that higher and lower replacements can occur for particular transmission lines as compared to the actual replacements due to the methodology used to project the replacements. The methodology uses the average age of poles being inspected along with the 2012 IOWA curve[1]; the anticipated pole replacement rate was calculated for TL232 using the IOWA curves. The 2012 IOWA family of curves represents probability distributions of the remaining useful life of poles of a particular age. Hydro uses the appropriate curve for the average age of poles being inspected for the Central Region to predict the number of replacements that will result from the inspection of the line. Given that the IOWA curves estimate the probability of failure, in some cases, the actual

[1] Iowa curves are survivor curves that were developed in a study at the University of Iowa and include a set of 31 standardized patterns used to determine asset retirement. The survivor curve is essentially a curve of functional failures of all the assets, which is used to determine the probability of failure of an asset during any particular calendar year.

required replacements can be significantly different than the prediction, such as the case for TL232.