

1 Q. **Reference: Program 10 Wood Pole Line Management (2025), page 9.**

2 Hydro states that it is forecasting a sizeable increase in pole replacements for the years 2026
3 and 2027. The forecasted numbers were determined through IOWA curves found in Appendix A.

4 a) Please explain in detail how the IOWA curves in Appendix A support the realistic
5 forecasting of the remaining life of groups of assets.

6 b) Figure A-1 in Appendix A shows a curve for the industry benchmark and Hydro's current
7 projection. What is the average service life for each of these curves?

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10 A. a) The IOWA curve is a form of survival curve which is used to predict the useful life and
11 retirement age of assets. Newfoundland and Labrador Hydro's ("Hydro") Wood Pole Line
12 Management ("WPLM") Program uses IOWA curves to predict the number of wood
13 transmission poles to be replaced each year based on previous inspection data. The industry
14 benchmark curve shown in Figure A-1¹ of Appendix A of the WPLM Program proposal
15 indicates that 50% of a pole plant asset is typically replaced by the time the asset age has
16 reached 50 years. At the inception of the WPLM Program, this standard 50-year IOWA curve
17 (i.e., average pole life of approximately 50 years) was chosen as a benchmark for the
18 program, as pole inspection data from 1998 to 2003 correlated well with this curve. Since
19 then, Hydro has tracked its inspection data and developed survival curves specific to Hydro's
20 system using the IOWA Curve methodology. The curve in Figure A-1 depicting Hydro's current
21 projection is an average comprised of inspection data from all lines on the Island. This curve
22 predicts the average life for a Hydro transmission pole on the Island to be approximately 90
23 years. These curves will continue to evolve as they are updated with actual replacement
24 rates over time. For additional detail on how these curves are used, please refer to Hydro's
25 WPLM Program Progress Report (2018–2022), submitted to the Board on April 21, 2023.²

¹ "2025 Capital Budget Application," Newfoundland and Labrador Hydro, July 16, 2024, sch. 7, prog. 10, app. A, fig. A-1, p. A-1.

² "Wood Pole Line Management Program – Progress Report (2018–2022)," Newfoundland and Labrador Hydro, April 21, 2023.

- 1 **b)** In Figure A-1 of Appendix A, the average service life for the industry benchmark curve is 50
- 2 years while the average service life of the curve depicting Hydro's current projection is
- 3 approximately 90 years.