

1 Q. Re: 2012 Wood Pole Line Management Volume II (Tab 13)

2 How does Hydro propose to measure the success of the wood pole line
3 management program to see if it is actually a benefit?

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6 A. The main objective of the WPLM program is to inspect all 26,000 transmission poles
7 over a ten-year period. All poles need to be inspected to ensure that the
8 appropriate action be taken after an inspection to maintain the strength of the
9 structure to meet the original design loading condition. This program is designed to
10 complete a review of every structure once every ten years. The first ten-year cycle
11 will be completed in 2013.

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13 Over the last several years, there have been severe ice storms on the Avalon
14 Peninsula (on March 18-19, 2009 and March 6, 2010 in particular) where ice build
15 up on the transmission lines has been recorded in excess of 25 mm of radial glaze
16 ice which is higher than the design load of the wood pole lines. On September 21,
17 2010, Newfoundland was hit by a Category 1 storm (Igor) dropping over 200 mm of
18 rain in some places. Wind gusts of nearly 140 km/h were also recorded at the St.
19 John's International Airport. During these events, the wood pole lines were pushed
20 towards their design limits and no wood pole line failures were reported. Hydro is
21 confident based upon its earlier experiences (pre WPLM program, 2003) that these
22 lines did not experience failures because of the proactive replacement of the
23 structurally unsound poles under this program.

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25 This supports the need for the proactive condition based management program
26 which Hydro is pursuing. This WPLM program should be continued to ensure the
27 reliability of the wood pole transmission line system. The impact of these extreme

- 1 storm events is a good example of deriving benefit from such a comprehensive
- 2 condition based management program.