

1 **Q. (Reference Application, 3.1 2023 Transmission Line Rebuild, page 1) It is**  
 2 **stated "A total of 26 transmission lines have been rebuilt under the strategy**  
 3 **since 2006. By year-end 2022, approximately 79% of the strategy will have**  
 4 **been executed." In P.U. 37 (2020) it is stated (page 15) "The Board notes that**  
 5 **over the 10-year period 2010 to 2019 Newfoundland Power has replaced**  
 6 **approximately 13% of its total transmission system in accordance with**  
 7 **Transmission Inspection Maintenance Practices which set out the criteria for**  
 8 **replacement, including the use of sounding and core sampling tests. The Board**  
 9 **remains satisfied that changes with respect to Newfoundland Power's**  
 10 **transmission line testing practices are not necessary at this time but that it**  
 11 **may be appropriate for Newfoundland Power to review its practices upon the**  
 12 **completion of Hydro's test and treat program in 2023."**

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- 14 a) **If approved by the Board, what percentage of the strategy will be**  
 15 **completed by year-end 2023 and what percentage of the transmission**  
 16 **system will have been replaced?**
- 17 b) **Please confirm that Hydro's test and treat program which is expected to**  
 18 **be completed in 2023 will have limited impact on NP's transmission line**  
 19 **rebuild strategy.**
- 20 c) **Could the transmission line rebuild strategy be deferred until Hydro's**  
 21 **test and treat program is completed? Please quantify the risks involved**  
 22 **in project deferral by one year.**

23

24 A. a) By year end 2023, the strategy will be 79% complete. The rebuild of  
 25 Transmission Line 94L was approved as a three-year project in Newfoundland  
 26 Power's *2022 Capital Budget Application* and will not be fully completed until  
 27 year end 2024. The rebuild of Transmission Line 55L is included in the *2023*  
 28 *Capital Budget Application* as a two-year project and will not be fully completed  
 29 until year end 2024.

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31 By year end 2023, approximately 26% of Newfoundland Power's transmission  
 32 system will have been replaced since 2006 under the *Transmission Line Rebuild*  
 33 *Strategy*.<sup>1</sup>

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- 35 b) Newfoundland Power is waiting for the results of Hydro's test and treat program  
 36 before determining whether a wood pole test and treatment program would have  
 37 any impact on its *Transmission Inspection and Maintenance Practices*.<sup>2</sup>  
 38 However, a test and treat program would not address the typical above ground  
 39 pole deterioration exhibited on the transmission lines of the vintage included in  
 40 the *Transmission Line Rebuild Strategy*.<sup>3</sup>

<sup>1</sup> This includes the retirement of transmission lines 101L and 102L approved by the board in Order No. P.U. 24 (2020).

<sup>2</sup> See the response to Request for Information NLH-NP-027.

<sup>3</sup> See the *2023 Capital Budget Application*, report *3.1 2023 Transmission Line Rebuild, Appendix B* for pictures of typical pole deterioration on Transmission Line 55L. Depending upon the results of the Hydro study, a wood pole test and treatment program may provide benefit for younger vintage wood poles.

1 c) No, the *Transmission Line Rebuild Strategy* cannot be deferred until Hydro's test  
2 and treat program is completed. The *Transmission Line Rebuild Strategy* was  
3 developed in response to the age and condition of the Company's transmission  
4 lines. Many of the Company's 110 transmission lines were constructed over 50  
5 years ago, were in a deteriorated condition and were not built to any particular  
6 standard.<sup>4</sup>  
7

8 The *Transmission Line Rebuild Strategy* recognizes the important role that  
9 transmission lines play in providing reliable service to large numbers of  
10 customers. It outlines a structured approach to rebuilding the Company's oldest  
11 and most deteriorated lines and prioritizes rebuild projects based on: (i) the  
12 physical condition of the lines; (ii) the risk of failures; and (iii) the impact a  
13 failure would have on customers. Implementation of Newfoundland Power's  
14 *Transmission Line Rebuild Strategy* continues to be consistent with the delivery  
15 of least-cost, reliable service to customers.  
16

17 Delaying the proposed *Transmission Line 55L Rebuild* project by one year would  
18 increase the risk of component failure due to deterioration. The primary  
19 consequence of component failure would be outages to thousands of customers  
20 supplied by Transmission Line 55L on the Avalon Peninsula. See Newfoundland  
21 Power's *2023 Capital Budget Application, Schedule B*, page 110, for the risk  
22 assessment of the *2023 Transmission Line Rebuild* project.

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<sup>4</sup> These transmission lines were not engineered to withstand local environmental conditions and were therefore more susceptible to failure.