

1 **Q. (Reference CA-NP-049) If Newfoundland Power were to forego this work in**  
 2 **2023, would the level of reliability on the system continue to exceed the**  
 3 **Canadian average? More specifically, does this program need to be done**  
 4 **annually? Would there be savings if done every other year?**

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 6 **A. A. General**

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 8 The *Rebuild Distribution Lines* program, as discussed in response to Request for  
 9 Information CA-NP-049, is Newfoundland Power's annual preventative maintenance  
 10 program for its distribution system. The program involves the planned replacement of  
 11 distribution assets identified during inspections. Distribution feeders are inspected on a  
 12 seven-year cycle in accordance with the criteria outlined in the Company's *Distribution*  
 13 *Inspection and Maintenance Practices*.<sup>1</sup> These practices establish that:

- 14  
 15 (i) All key components of a distribution feeder shall be inspected in accordance with  
 16 the established guidelines. For example, poles are inspected for their condition,  
 17 including any splits, cracks or rot.  
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 19 (ii) Deficiencies identified for correction are to be recorded in the Company's asset  
 20 management information system, Avantis.  
 21  
 22 (iii) Inspection personnel must assign a maintenance priority for each deficiency  
 23 identified for correction, indicating whether the work is required immediately,  
 24 within the current year, or within the next budget cycle.  
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26 Deficiencies identified during inspections are prioritized for correction based on severity.  
 27 High priority deficiencies that require correction within a month are addressed under the  
 28 *Reconstruction* program. Other deficiencies are addressed in a planned manner under  
 29 the *Rebuild Distribution Lines* program. For example, if a wood pole is inspected in 2022  
 30 and found to have a serious crack, it would be replaced within a week to a month under  
 31 the 2022 *Reconstruction* program. If a wood pole inspected in 2022 has rotted and  
 32 failed a core test or has severe woodpecker holes, it would be addressed in a planned  
 33 manner under the 2023 *Rebuild Distribution Lines* program.  
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35 **B. Response**

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 37 A total of 43 distribution feeders will be inspected in 2022 to identify any required  
 38 preventative maintenance to be completed under the *Rebuild Distribution Lines* program  
 39 in 2023. If Newfoundland Power were to forego this work in 2023, only corrective  
 40 maintenance would be completed and many deficiencies identified on these distribution  
 41 feeders would go unaddressed.  
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43 Based on the Company's inspection cycle, it would be seven years before these 43  
 44 feeders would be inspected again. During this period, it is very likely that the  
 45 deficiencies identified in 2022 would result in equipment failures. The primary impact of

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<sup>1</sup> It has been found that these inspection and maintenance practices are good utility practice. See section 7.2.3 of the Board's Phase One Report, September 29, 2016, in the *Investigation and Hearing into Supply Issues and Power Outages on the Island Interconnected System*.

1 these equipment failures would be deteriorating service reliability being experienced by  
2 the customers served by those feeders.<sup>2</sup> While the Company cannot quantify the  
3 specific reliability impact, as stated in the response to Request for Information  
4 CA-NP-049, the impact on the Company's overall reliability performance relative to the  
5 Canadian average would be less pronounced than the impact on these customers.

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7 Completing annual inspections and preventative maintenance of the distribution system  
8 creates reasonable stability in annual work requirements and associated capital  
9 expenditures. Suspending preventative maintenance would be inconsistent with sound  
10 public utility practice. It would increase expenditures associated with addressing in-  
11 service equipment failures under the *Reconstruction* program and would be expected to  
12 cause the Company's overall reliability performance to deteriorate over time.

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14 In Newfoundland Power's assessment, there would be no cost savings associated with  
15 shifting its preventative maintenance program to occur every second year. Completing  
16 work identified under the *Rebuild Distribution Lines* program every second year would  
17 require, as examples: (i) twice as many feeders undergoing inspections and  
18 maintenance every second year; or (ii) implementing a 14-year inspection cycle for  
19 distribution feeders with no inspections or maintenance every second year.

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21 In either scenario, this would create instability in year-over-year work requirements and  
22 lost productivity without corresponding savings.<sup>3</sup>

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24 All feeders would continue to require inspection and the deficiencies identified would still  
25 need to be addressed through preventative maintenance. Delays in completing  
26 preventative maintenance by skipping every second year would likely result in more  
27 in-service equipment failures on the distribution system. This would lead to  
28 deteriorating service reliability for customers and higher costs associated with  
29 completing unplanned maintenance. Whereas planned maintenance can be organized  
30 such that multiple deficiencies at a site are addressed at once, maximizing efficiencies,  
31 unplanned maintenance often occurs on an emergency basis outside of normal business  
32 hours. This can result in higher labour and contractor costs, as well as higher materials  
33 costs if the necessary materials are not readily available.

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35 Overall, failing to implement an annual preventative maintenance program for the  
36 distribution system would be inconsistent with the delivery of reliable service to  
37 customers at the lowest possible cost.

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<sup>2</sup> The 43 distribution feeders included as part of the program in 2023 serve over 40,000 customers in total and serve on average 1,000 customers per feeder.

<sup>3</sup> Newfoundland Power maintains a workforce of qualified Planners to conduct inspections and plan required maintenance. The size of this workforce is designed to match annual work requirements. Foregoing inspections and maintenance every second year would create instability in annual work requirements. This, in turn, would be detrimental to the Company's efforts to match the size of its workforce to annual requirements.