

1 **Q. (Reference Application Schedule B, Rebuild Distribution Lines, page 41) Please**  
 2 **quantify the impact on reliability if Newfoundland Power were to forego this**  
 3 **work in 2023. If Newfoundland Power were to forego this work in 2023, would**  
 4 **the level of reliability on the system remain above the Canadian average?**  
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6 A. The *Rebuild Distribution Lines* program is part of Newfoundland Power's annual  
 7 preventative maintenance program for its distribution system. Distribution lines are  
 8 inspected on a seven-year cycle in accordance with the Company's *Distribution*  
 9 *Inspection and Maintenance Practices*.<sup>1</sup> Deficiencies identified during inspections are  
 10 corrected in a planned manner under the *Rebuild Distribution Lines* program.  
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12 Foregoing work under the *Rebuild Distribution Lines* program would effectively suspend  
 13 Newfoundland Power's preventative maintenance program for its distribution system.  
 14 Suspending preventative maintenance would be inconsistent with sound public utility  
 15 practice and result in deficiencies identified during inspections going unaddressed. This,  
 16 in turn, would result in increased in-service equipment failures on the distribution  
 17 system. The primary consequences of increased in-service equipment failures on the  
 18 distribution system are reduced service reliability for customers, potential public safety  
 19 hazards and increased costs.  
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21 In 2014, the Board's consultant, The Liberty Consulting Group, recognized the  
 22 contribution of the *Rebuild Distribution Lines* program to electrical system reliability.<sup>2</sup>  
 23 Newfoundland Power would expect its reliability performance to fall below the Canadian  
 24 average over time if it no longer completed preventative maintenance of its distribution  
 25 system under this program.  
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27 With 43 distribution feeders scheduled for preventative maintenance in 2023, it is likely  
 28 that the reliability experienced by customers would deteriorate if this work were not  
 29 completed. However, due to uncertainty regarding the specific deficiencies to be  
 30 corrected under this program and the frequency and duration of resulting outages, the  
 31 Company cannot quantify a specific impact on reliability in that scenario.  
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33 Additionally, failing to address identified deficiencies in a planned manner would result in  
 34 more unplanned maintenance as components fail in service. Unplanned maintenance is  
 35 generally more costly than planned maintenance. This is because planned maintenance  
 36 can be organized such that multiple deficiencies at a site are addressed at once,  
 37 maximizing efficiencies in executing the work. Unplanned maintenance often occurs on  
 38 an emergency basis outside of normal business hours. This can result in higher labour  
 39 and contractor costs, as well as higher material costs if the necessary materials are not  
 40 readily available.

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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*.

<sup>2</sup> The Liberty Consulting Group recommended an increased focus on the *Rebuild Distribution Lines* program with the goal of reducing distribution equipment failures. See Recommendation 2.1 of The Liberty Consulting Group's *Report on Island Interconnected System to Interconnection with Muskrat Falls addressing Newfoundland Power Inc.*, December 17, 2014.