

- 1 **Q. (Reference Application Schedule B, Rebuild Distribution Lines, page 33) It is**
 2 **stated “*Rebuild Distribution Lines is a preventative maintenance program that***
 3 ***involves the planned replacement of deteriorated distribution structures and***
 4 ***electrical equipment identified through inspections or engineering reviews.”***
 5 **a) Why is the Distribution Feeder OXP-01 Refurbishment project not included**
 6 **under this program?**
 7 **b) Please quantify the risk and impact on reliability if NP were to forgo this**
 8 **work in 2024.**
 9 **c) If NP were to forgo this work in 2024, would the level of reliability on the**
 10 **system remain above the Canadian average? Would delaying this work be**
 11 **consistent with providing service in an environmentally responsible**
 12 **manner?**
 13 **d) Please provide the inspection and/or engineering reports referenced at**
 14 **Schedule B, page 33.**

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 16 **A.** a) The *Distribution Feeder OXP-01 Refurbishment* project was not included under the
 17 *Rebuild Distribution Lines* program because the 2022 inspection identified a
 18 significant number of deficiencies on a 3.2-kilometre section of the feeder. The
 19 quantity of identified deficiencies is materially higher in scope than what would
 20 normally be addressed under the *Rebuild Distribution Lines* program. As a result,
 21 the *Distribution Feeder OXP-01 Refurbishment* project was proposed a stand-alone
 22 project.
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 24 b) The *Rebuild Distribution Lines* program is part of Newfoundland Power’s annual
 25 preventative maintenance program for its distribution system. Distribution lines are
 26 inspected on a seven-year cycle in accordance with the Company’s *Distribution*
 27 *Inspection and Maintenance Practices*.¹ Deficiencies identified during inspections are
 28 corrected in a planned manner under the *Rebuild Distribution Lines* program.

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 30 With 47 distribution feeders scheduled for preventative maintenance in 2024, it is
 31 likely that the reliability experienced by customers would deteriorate if this work
 32 were not completed. However, due to uncertainty regarding the specific deficiencies
 33 to be corrected under this program and the frequency and duration of resulting
 34 outages, the Company cannot quantify a specific risk or impact on reliability in that
 35 scenario.

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 37 Additionally, failing to address identified deficiencies in a planned manner would
 38 result in more unplanned maintenance as components fail in service. Unplanned
 39 maintenance is generally more costly than planned maintenance. This is because
 40 planned maintenance can be organized such that multiple deficiencies at a site are
 41 addressed at once, maximizing efficiencies in executing the work. Unplanned
 42 maintenance often occurs on an emergency basis outside of normal business hours.
 43 This can result in higher labour and contractor costs, as well as higher material costs
 44 if the necessary materials are not readily available.

¹ It has been found that these inspection and maintenance practices are consistent with 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 c) Foregoing work under the *Rebuild Distribution Lines* program would effectively
2 suspend Newfoundland Power's preventative maintenance program for its
3 distribution system. Suspending preventative maintenance would be inconsistent
4 with sound public utility practice and would result in identified deficiencies going
5 unaddressed. This, in turn, would result in increased in-service equipment failures
6 on the distribution system. The primary consequences of increased in-service
7 equipment failures on the distribution system are reduced service reliability for
8 customers, potential public safety hazards and increased costs.
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10 In 2014, the Board's consultant, The Liberty Consulting Group, recognized the
11 contribution of the *Rebuild Distribution Lines* program to electrical system reliability.²
12 Newfoundland Power's average frequency of customer outages has been consistent
13 with the Canadian average over the last decade.³ Foregoing preventative
14 maintenance on the distribution system would result in more frequent outages and
15 would likely result in the Company's average frequency of outages being more than
16 the Canadian average.
17

18 Delaying work under the *Rebuild Distribution Lines* program would not be consistent
19 with providing service in an environmentally responsible manner. As described
20 above, suspending preventative maintenance would result in deficiencies identified
21 during inspections going unaddressed. This would include the identification of rusty
22 distribution transformers⁴ and vegetation which could result in trees coming into
23 contact with energized lines, potentially igniting fires.
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- 25 d) See the response to Request for Information CA-NP-077.

² 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.

³ See Newfoundland Power's *2024 Capital Budget Application, 2024 Capital Budget Overview*, page 8.

⁴ See the response to Request for Information CA-NP-085 for additional details on the environmental risks posed by failing to address deteriorated distribution transformers.