

1 **Q. (Reference Application Schedule B, Distribution Reliability Initiative, page 46 of 99)**
 2 **It is stated “This project is justified on the obligation to provide reliable service to**
 3 **customers at least cost and cannot be deferred.”**
 4

- 5 **a) Please provide evidence based on reliability criteria that Newfoundland Power**
 6 **will be unable to provide reliable service at least cost if it were to delay this project.**
 7 **b) Please quantify the impact on the following if the project were delayed by two**
 8 **years: 1) reliability, 2) cost, and 3) the risk and consequences of failure**
 9 **c) Please indicate when the Distribution Reliability Initiative project began. What**
 10 **efficiency improvements have been made in the administration of the program**
 11 **and how much have these improvements decreased the costs of the program?**
 12

13 A. a) Newfoundland Power manages its capital expenditures in a manner that balances both
 14 the cost and reliability of the service provided to its customers.¹ The Company is
 15 focused on maintaining current levels of overall service reliability for its customers at
 16 the lowest possible cost.² The 2022 *Distribution Reliability Initiative* is consistent
 17 with this objective.
 18

19 The *Distribution Reliability Initiative* targets the Company’s worst performing
 20 feeders where customers experience service reliability that is significantly below the
 21 Company average. Three criteria are applied for a project to be included in the
 22 *Distribution Reliability Initiative*:

- 23
 24 (i) The distribution feeder must be among the worst performing feeders in
 25 Newfoundland Power’s service territory.
 26 (ii) The cause of poor reliability performance must be attributable to issues with
 27 the electrical system and not isolated events.
 28 (iii) Engineering reviews must determine that capital expenditures will reasonably
 29 address the cause of the poor reliability performance.³
 30

31 For 2022, Newfoundland Power is proposing to address the poor reliability
 32 experienced by customers served by a 2 km section of Broad Cove (“BCV”) Substation
 33 feeder BCV-04. Customers served by this section of feeder experienced
 34 16.5 hours of outage in 2020, compared to a Company average of 1.8 hours.⁴ The
 35 poor reliability of this section of feeder is attributable to salt contamination and
 36 related equipment failures, including failures of insulators and cutouts.⁵
 37

38 Targeting capital expenditures in areas where customers experience the worst service
 39 reliability through the *Distribution Reliability Initiative* is consistent with maintaining
 40 acceptable levels of service reliability for all customers at the lowest possible cost.

1 See response to Request for Information NLH-NP-042.

2 See response to Request for Information CA-NP-014.

3 See the 2022 *Capital Budget Application, Report 4.1 Distribution Reliability Initiative*, page 1.

4 Ibid., page 3.

5 Ibid.

1 b) Delaying the 2022 *Distribution Reliability Initiative* by 2 years would mean that the
2 risk of equipment failure and customer outages on BCV-04 would remain high. As a
3 result, 1,037 customers served by BCV-04 are likely to continue to experience service
4 reliability that is significantly worse than other Newfoundland Power customers. See
5 part a).⁶
6

7 Delaying this project would therefore be inconsistent with maintaining reliable
8 service for all customers at the lowest possible cost.
9

10 c) The *Distribution Reliability Initiative* was implemented in 1998.
11

12 The data analysis and engineering assessments completed annually as part of the
13 *Distribution Reliability Initiative* ensure the project is administered in a targeted and
14 efficient manner. While the project has existed since 1998, there have been 4 years in
15 which data analysis and engineering assessments determined that no capital
16 expenditures were required for this project.
17

18 Additionally, Newfoundland Power introduced a new Outage Management System
19 (“OMS”) in 2019. The new OMS provides more granular detail on the reliability
20 experienced by customers in specific neighbourhoods or on specific sections of
21 feeders. Newfoundland Power used this data for its 2022 *Distribution Reliability*
22 *Initiative*, which ultimately identified that upgrades are required for a relatively short,
23 2 km section of BCV-04.

⁶ For information on Newfoundland Power’s approach to quantifying risks and benefits, see response to Request for Information CA-NP-014.