

1 **Q. Tab 3.1: 2018 Transmission Line Rebuild**

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3 **Page 2 of the report states**

4 *“...maintenance either requires extended outages or mobile generation to supply the*
5 *customers of the Baie Verte Peninsula. The other option is the use of hot-line work*
6 *methods, which are expensive and time consuming because of work safety*
7 *requirements associated with energized 138 kV lines.”*

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9 **Has Newfoundland Power performed any cost benefit studies comparing the**
10 **different methods of maintaining transmission lines (e.g. mobile generation,**
11 **redundant lines, customer outages and hot-line work)? If yes, please provide**
12 **details? If no, why not?**

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14 **A.** Newfoundland Power has not completed any generic cost benefit studies comparing
15 different methods of maintaining transmission lines. The decision to use mobile
16 generation, customer outages, and/or hot-line work methods is made on an individual
17 project basis.

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19 Newfoundland Power conducts transmission line equipment maintenance so that
20 reliability to customers is maintained at a reasonable level. The planning of maintenance
21 work on individual transmission lines involves an assessment of customer outage and
22 cost impacts to ensure the work is completed in a safe, least-cost, reliable manner.
23 Factors that are considered in the assessment include: (i) the size of the load served by the
24 transmission line; (ii) availability and suitability of mobile generation to service the load;
25 (iii) location of the transmission line; (iv) the extent of the maintenance work required;
26 and (v) availability of qualified personnel to conduct hot-line work. It is during this
27 assessment for individual projects that the decision is made to complete the work using
28 mobile generation, customer outages, and/or hot-line work methods.¹

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30 In the case of transmission line rebuild projects such as the one proposed for 363L,
31 replacement sections of the transmission line are typically constructed alongside the
32 deteriorated line while it remains in service. During such projects, customer outages are
33 typically minimal and are only necessary to energize the newly built transmission line
34 once it is ready to go in service.

¹ As an example, in 2012, maintenance on transmission line 363L included the replacement of 184 separate components on the line during a series of planned outages. Due to the relatively large amount of work planned during this series of outages, the decision was made to use mobile generation to maintain service during the project to provide reliable supply for the Company’s Baie Verte Peninsula customers. During the planned outages, the mobile gas turbine operated on 6 days for a total of 72 run time hours and produced approximately 242,000 kilowatt-hours of generation.