

1 **Q. (Reference Application, Transmission Line Rebuild, Page 4) It is stated “An analysis**
2 **of historical outage data suggests that 124L has been prone to outages primarily due**
3 **to wind and lightning.” How, and to what extent, will this project alleviate wind and**
4 **lightning outages?**

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6 A. In its current configuration, a fault occurring at any point along transmission line 124L
7 results in outages to all 3,700 customers supplied from Port Blandford (“PBD”), Terra
8 Nova (“TNS”) and Glovertown (“GLV”) substations. The planned 2022 rebuild project
9 will connect 124L directly into GLV Substation. This will result in 2 separate
10 transmission lines terminating at GLV Substation and a looped transmission line
11 configuration to supply the approximate 2,700 customers supplied from the substation.¹
12 After completion of the planned work in 2022, customer outages related to wind and
13 lightning on 124L will be minimized by automatically isolating the faulted section of line
14 at GLV Substation. This will eliminate outages for the customers supplied from GLV
15 Substation from any transmission line fault between Clarendville (“CLV”) and Gambo
16 (“GAM”) substations. Also, outages to approximately 1,000 customers supplied from
17 PBD and TNS substations will be eliminated for any transmission line fault between
18 GLV and GAM substations.

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20 For example, in November 2018, a wind storm resulted in damage to a section of 124L
21 between GLV and GAM substations, causing an extended outage to all customers
22 supplied from PBD, TNS and GLV substations. If a similar event were to occur after the
23 planned 2022 work, no customer outages would result.

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25 In addition to the reliability improvements associated with the reconfiguration of 124L,
26 the proposed rebuild of 124L will address widespread deficiencies identified throughout
27 the line and ensure the line can operate reliably in the operating conditions of the
28 geographical area.

¹ The section of transmission line between GLV and GAM substations will be renamed 121L. This also involves the installation of 2 new transmission line breakers at GLV Substation as part of the *2022 Substation Refurbishment and Modernization* project.