

1 **Reference: Tab 3.1: 2023 Transmission Line Rebuild**

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3 **Q. Please provide the most recent update to the Transmission Line Rebuild**

4 **Strategy originally submitted with Newfoundland Power's 2006 capital**

5 **budget application.**

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7 A. The *Transmission Line Rebuild Strategy* (the "Strategy") originally submitted with

8 Newfoundland Power's *2006 Capital Budget Application* outlined a multi-year plan for

9 rebuilding the Company's aging and deteriorated transmission lines.

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11 The Strategy was developed in response to the age and condition of the Company's

12 107 transmission lines.<sup>1</sup> Many of the Company's transmission lines were constructed

13 over 50 years ago and were not built to any particular standard.<sup>2</sup> These transmission

14 lines were not engineered to withstand local environmental conditions and were

15 therefore more susceptible to failure.

16

17 The Strategy recognized the critical role that transmission lines play in providing reliable

18 service to large numbers of customers. It outlined a structured approach to rebuilding

19 the Company's oldest and most deteriorated lines and established that required rebuild

20 projects would be prioritized based on: (i) the physical condition of a line; (ii) the risk of

21 failure; and (iii) the impact a failure would have on the service provided to customers.

22

23 Newfoundland Power reviews the Strategy each year as part of its annual capital

24 planning process. The review prioritizes transmission line rebuild projects based on the

25 methodology outlined in the Strategy and incorporates the results of the Company's

26 annual transmission line inspections. For example, the rebuilding of Transmission Line

27 55L was most recently planned for 2022, but was deferred to allow an engineering

28 assessment of the line components and an assessment of the least-cost approach to

29 addressing the line's deteriorated condition.<sup>3</sup> The assessments have been completed

30 and the project is proposed for 2023.<sup>4</sup>

31

32 A total of 26 transmission lines have been rebuilt under the Strategy since 2006. By

33 year-end 2022, approximately 79% of the strategy will have been executed.<sup>5</sup> Five of

34 the seven remaining transmission line rebuilds are included in the five-year capital plan

35 filed with Newfoundland Power's *2023 Capital Budget Application*. The other two

36 transmission line rebuild projects, 105L and 35L, are currently identified for rebuild in

37 2028.

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1 As a result of transmission system reconfigurations and transmission line additions since 2006, the Company currently has 110 transmission lines.

2 Newfoundland Power currently designs its transmission lines to meet Canadian Standards Association ("CSA") standards and guidelines outlined in *C22.3 No. 1 Overhead Systems*. This standard designates Newfoundland Power's service territory as either severe or heavy weather loading areas. For more information, see the response to Request for Information CA-NP-060.

3 Transmission Line 55L was originally planned for rebuilding in 2007, but its service life was extended through routine maintenance.

4 See the *2023 Capital Budget Application, 2023 Capital Budget Overview*, Appendix B, Table B-1.

5 See the *2023 Capital Budget Application*, report *3.1 2023 Transmission Line Rebuild*, page 1.

1 Table 1 provides the current schedule for the remaining seven transmission lines  
 2 planned to be rebuilt under the Strategy based on the review completed in 2022.

Table 1 Transmission Line Rebuild Strategy Remaining Transmission Lines			
Line	Location	Year Built	Planned Rebuild
55L	BLK-CLK	1971	2023-2024
94L	BLK-RVH	1969	2022-2024
146L	GAN-GAM	1964	2024-2025
95L	RVH-TRP	1969	2025-2026
100L	SUN-CLV	1964	2027
105L	GFS-SBK	1963	2028
35L	OXF-KEN	1965	2028

3 The implementation of the Strategy continues to target the oldest and most deteriorated  
 4 transmission lines in Newfoundland Power’s electrical system. Proposed rebuild projects  
 5 continue to be identified based on inspection results and prioritized based on the  
 6 condition of the equipment, risk of failure, and impact on customers.

7  
 8 Execution of the Strategy continues to be appropriate given the age of Newfoundland  
 9 Power’s transmission lines and is consistent with the delivery of least-cost, reliable  
 10 service to customers. While some changes to the execution of the Strategy have  
 11 resulted from the Company’s annual review process, the methodology remains  
 12 unchanged.<sup>6</sup>

<sup>6</sup> For example, changes to the plan since 2006 primarily relate to the *Central Newfoundland System Planning Study* completed by Newfoundland Power in 2018. As transmission lines 101L and 102L were addressed as part of the *Central Newfoundland System Planning Study*, they were removed from the plan. Transmission line 53L, which is no longer in service, has also been removed from the plan.