

Transmission

Q. Reference: "2024 Capital Budget Application," Newfoundland Power Inc., June 22, 2023, Supporting Materials, Transmission: 3.1, sec. 4.4, p. 13.

The sensitivity analysis of Alternative 1 determined that advancing the future replacements to 2028 and 2029 increased the NPV to \$13.9 million. Further deferral of the remaining rebuild of the line to 2033 and 2034 results in an NPV of \$12.7 million. In both cases, Alternative 2 remains the least-cost alternative to address the deterioration identified on Transmission Line 146L.

- a) Did Newfoundland Power consider further deferral of the remaining rebuild of transmission line 146L beyond 2033 and 2034? If not, why not?**
- b) Under the scenario where the remaining rebuild of transmission line 146L is deferred beyond 2033 and 2034, would it still be considered least-cost to proceed with Alternative 2? Please explain why or why not.**
- c) Did Newfoundland Power consider completing the rebuild in the existing right of way? If not, why not?**

- A.**
- a) No, Newfoundland Power did not consider deferral of the remaining rebuild of Transmission Line 146L beyond 2033 and 2034. In 2034 the remaining components on the line would have reached 70 years old and would have reached the end of their expected useful life before this point.¹ Given the age and condition of the components on Transmission Line 146L, deferring the rebuild of the remainder of the components on this line to 2033 and 2034 would put the line at an increased risk of failure. For example, an additional 98 poles were inspected and found to be in moderate condition. These poles are original 1964 vintage and are exhibiting splits and cracks.²
- b) Newfoundland Power does not consider the deferral of this option beyond 2033 and 2034 as a reasonable consideration. A deferral beyond this point would have an impact on the reliable delivery of electricity to customers.
- c) Yes, Newfoundland Power did consider completing the rebuild in the existing right-of-way. Rebuilding the line in the existing right-of-way would require Transmission Line 146L to be removed from service for prolonged periods of time to allow for construction of the new line. Rebuilding the line in a new parallel right-of-way ensures the continued reliability of the Central Newfoundland 138 kV looped transmission system during the execution of the project.

¹ See the response to Request for Information NLH-NP-015 for transmission overhead conductor life expectancy.

² See Newfoundland Power's 2024 Capital Budget Application, report 3.1 2024 Transmission Line Rebuild, page 4, footnote 7.

1 Since the existing line is able to stay in service during the construction of the new
2 line, it would avoid exposing thousands of customers to the increased risk of outages
3 associated with transmission lines being radially supplied for prolonged periods of
4 time.
5
6 Additionally, rebuilding in a new right-of-way allows for rebuilding the entire line in a
7 single construction season. This allows for efficient execution of the project with no
8 duplication of work during construction.
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10 Overall, rebuilding in a new right-of-way avoids exposing customers to increased risks
11 of outages while the scope of work is being completed and provides the greatest
12 value in terms of construction efficiencies.³

³ Ibid., pages 9 to 11.