Transmission

Q. Reference: "2024 Capital Budget Application," Newfoundland Power Inc., June 22, 2023, Supporting Materials, Transmission: 3.1, sec. 4.2, p. 10.

> **Additionally, in order to ensure future rebuild of this line adheres to current design standards, the new poles being installed may need to be higher than the existing poles that are being replaced. Installing a large number of poles of greater height will require additional conductor to be spliced onto the existing conductor. The conductor will also have to be re-sagged when all of the poles are replaced.**

a) Under Alternative 1, please explain why Newfoundland Power would not install higher poles, assuming that the line will be rebuilt in 2028, and frame the poles lower instead of modifying conductor.

b) Under Alternative 1, please explain why transmission line 146L would be rebuilt in 2028 if existing deficiencies would be addressed in 2025.

A. a) Under Alternative 1, Newfoundland Power would not plan to install higher poles and temporarily frame them at a lower height. Doing so would cause a significant amount of rework during the future rebuild stage of the project. In addition to replacing all of the structures not addressed in the original deficiency corrections, each structure that was previously remediated would have to be reframed at the appropriate height before installing the new conductor. This would add a significant cost to the project, while also adding additional complexities and inefficiencies, ultimately increasing the length of time required to complete the project.

b) Under Alternative 1, the remaining structures not originally addressed in 2025 would be rebuilt in 2028 and 2029. At that time, those remaining structures and the conductor which were originally installed in 1964 would have been in service for 65 years. The typical useful service life of transmission wood poles and transmission overhead conductor is 58 years and 63 years, respectively.

Furthermore, the engineering assessment completed on Transmission Line 146L found that an additional 98 poles, beyond those currently identified as requiring replacement, were in moderate condition. The poles are currently showing initial signs of deterioration and their condition is expected to continue to decline. This aligns with the increased number of deficiencies found throughout Transmission Line 146L during recent annual inspections.

Due to the remaining line components having exceeded their typical useful service life in 2028, and the present condition of the structures that will not be addressed in 2025, an increased risk of equipment failure on Transmission Line 146L would be expected. A rebuild of the remaining structures on the line would be required to address this risk of failure.