

1 **Reference: 3.1 2024 Transmission Line Rebuild**

2
3 **Q. In the response to CA-NP-111 filed in the 2023 Capital Budget Application**
4 **proceeding, Newfoundland Power stated it was “waiting for the results of**
5 **Hydro’s test and treat program before determining whether a wood pole test**
6 **and treatment program would have any impact on its Transmission and**
7 **Maintenance Practices”. Hydro filed a report on its wood pole treatment**
8 **program on April 21, 2023. On June 28, 2023 Newfoundland Power filed**
9 **comments on this report.**

10 **a) Please file the letter of June 28, 2023 for the record in this proceeding.**

11 **b) Newfoundland Power stated in the June 28, 2023 letter that it “has**
12 **initiated discussions with Hydro and has further meetings planned with**
13 **Hydro’s technical and engineering staff to better understand the potential**
14 **benefits of a chemical re-treatment program” for its transmission line**
15 **wood poles. Newfoundland Power further advised that an assessment of**
16 **its transmission line asset management practices would be included in its**
17 **asset management review. Please outline the scope and schedule for the**
18 **review of the potential benefits of Hydro’s wood pole line management**
19 **program for Newfoundland Power’s wood pole transmission lines.**

20 **c) What are the factors that would be necessary to consider in assessing**
21 **whether the Transmission Line Rebuild Strategy should be paused in order**
22 **to reduce annual capital spending given Newfoundland Power is near the**
23 **end of the program carried out under the Strategy and it is reviewing both**
24 **its asset management practices and Hydro’s wood pole transmission asset**
25 **management practices to determine its future transmission line practices?**

26
27 **A. a) Attachment A contains the June 28, 2023 letter from Newfoundland Power to the**
28 **Board regarding Newfoundland and Labrador Hydro – Wood Pole Management**
29 **Program Progress Report (2018-2022).**

30
31 **b) Newfoundland Power is undertaking a review of its asset management practices to**
32 **ensure its practices continue to be adequate, given the age of its electrical system,**
33 **and remain consistent with industry best practices.¹ This review will include an**
34 **assessment of the Company’s transmission line asset management practices**
35 **including its capital investment and maintenance programs.**

36
37 With specific reference to the scope and schedule for the review of the potential
38 benefits of Newfoundland and Labrador Hydro’s (“Hydro”) wood pole line
39 management program for Newfoundland Power’s wood pole transmission lines, the
40 Company observes there are many similarities between the inspection and
41 maintenance practices of both utilities. Newfoundland Power has transmission lines
42 that are much older than the transmission lines maintained by Hydro, hence a
43 rebuild program is appropriate. As Hydro’s transmission lines have generally been in
44 service for fewer years than Newfoundland Power’s, it has incorporated a test and
45 chemical re-treatment program as part of its wood pole line management program.

¹ The Company has developed a framework for the asset management review, see the response to Request for Information PUB-NP-016, Attachment A. The framework sets out the scope, stages and timelines for the review.

1 The potential benefits of Hydro's test and chemical re-treatment program are of
 2 particular interest to Newfoundland Power. The scope and schedule for the review
 3 of Hydro's wood pole line management program by Newfoundland Power has not
 4 been determined, but will be completed in time to feed into the larger asset
 5 management review.

- 6
 7 c) The Transmission Line Rebuild Strategy (the "Strategy") should not be paused in
 8 order to reduce annual capital spending given Newfoundland Power is near the end
 9 of the program carried out under the Strategy.

10
 11 Newfoundland Power filed the Strategy, a multi-year plan to rebuild its aging and
 12 deteriorated transmission lines, as part of its *2006 Capital Budget Application*.² The
 13 Strategy was developed in response to the reality that many of the Company's
 14 transmission lines were constructed over 50 years ago and were not built to any
 15 particular standard.³ These transmission lines were not engineered to withstand
 16 local environmental conditions and were therefore more susceptible to failure.

17
 18 The Strategy recognized the important role of transmission lines in providing reliable
 19 service to large numbers of customers.⁴ It outlined a structured approach to
 20 rebuilding the Company's oldest and most deteriorated transmission lines and
 21 established that required rebuild projects would be prioritized based on: (i) the
 22 physical condition of the lines; (ii) the risk of failures; and (iii) the impact a failure
 23 would have on customers.

24
 25 Newfoundland Power notes that its asset management review is a long-term
 26 initiative. The timelines associated with implementing any resulting
 27 recommendations will depend on the recommendations identified and may require a
 28 phased approach over several years. Adopting a new wood pole line management
 29 program would not yield rapid results, and in the meantime the risk associated with
 30 transmission lines identified in the Strategy would increase.⁵ Due to their criticality
 31 in serving customers, Newfoundland Power's transmission lines must be maintained
 32 to operate to a high standard of reliability.⁶

² Newfoundland Power's *2006 Capital Budget Application, Volume II, Supporting Materials*, report 3.1
Transmission Line Rebuild Strategy is included in Attachment A to the response to Request for Information
 PUB-NP-038.

³ The Transmission Line Rebuild Strategy, filed with the Company's *2006 Capital Budget Application*, noted: "Prior
 to the amalgamation of the three largest utilities in the province in 1966 (*United Towns Electric, Newfoundland
 Light & Power, and Union Electric*) there was limited transmission design expertise in any utility. There was little
 consistency in the design of transmission lines and, as a result, many lines built before 1960 were not designed
 to any standard (and do not meet present day standards)."

⁴ In particular, the Strategy noted: "While feeders typically supply several hundred up to two thousand customers,
 transmission lines often supply a few thousand up to tens of thousands of customers."

⁵ The transmission lines identified under the Strategy were constructed over 50 years ago and were not built to
 any particular standard. Adopting a wood pole line management program similar to Hydro which includes the
 chemical re-treatment of wood poles would not address the advanced deterioration exhibited on these lines.

⁶ Reliability indices are lagging indicators that encompass historical issues on the electrical system. Waiting for
 reliability on the transmission system to degrade before undertaking capital investments would result in a poor
 quality of service being experienced by large numbers of customers for several years. Newfoundland Power
 relies on an assessment of a transmission line's condition and its criticality in serving customers when
 determining whether a transmission line should be rebuilt.

ATTACHMENT A:

**Newfoundland and Labrador Hydro (“Hydro) – Wood Pole
Management Program Progress Report (2018-2022) – Request to
Provide Details on Review of Hydro’s Final Findings –
Newfoundland Power’s Comments**

WHENEVER. WHEREVER.
We'll be there.



June 28, 2023

Board of Commissioners
of Public Utilities
P.O. Box 21040
120 Torbay Road
St. John's, NL A1A 5B2

Attention: G. Cheryl Blundon
Director of Corporate Services
and Board Secretary

Dear Ms. Blundon:

Re: Newfoundland and Labrador Hydro ("Hydro") – Wood Pole Management Program Progress Report (2018-2022) – Request to Provide Details on Review of Hydro's Final Findings – Newfoundland Power's Comments

Introduction

On April 21, 2023 Hydro filed its *Wood Pole Line Management Program Progress Report (2018-2022)*. It is the fourth and final report relating to Hydro's Wood Pole Management program and covers two complete inspection cycles.

By letter dated June 5, 2023 the Board requested that Newfoundland Power (the "Company") provide details on its review of Hydro's final findings on their wood pole test and treatment program, including a date for the Company to report to the Board the impacts, if any, on the Company's Transmission Inspection and Maintenance Practices.

Background

Newfoundland Power's transmission lines are inspected annually in conjunction with its Transmission Inspection and Maintenance Practices.¹ These practices outline the classification priority and inspection and testing procedures used to determine the integrity of wood poles.² These annual inspections identify deficiencies and prioritize corrective action including the selective replacement of deteriorated components, such as wood poles, as required.

¹ Annual inspections of transmission lines include the inspection of all poles, towers, conductors, insulators, crossarms, crossbraces, anchors, guys, deadends, jumpers, sleeves and other hardware, as well as the right-of-way, and identify deficiencies that require correction.

² The condition of a wood pole is assessed using visual inspections or mechanical testing. Visual inspections identify types of pole deterioration or defects, such as pole top rot, external decay, and large splits and checks. Mechanical testing includes sounding and core sampling tests to determine if internal decay is present.

Newfoundland Power Inc.

55 Kenmount Road • P.O. Box 8910 • St. John's, NL A1B 3P6

PHONE (709) 737-5364 • FAX (709) 737-2974 • lhallett@newfoundlandpower.com

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As part of its 2020 Capital Budget Application, Newfoundland Power acknowledged that many utilities have test and treat programs for transmission line assets.³ At that time, Newfoundland Power submitted that it would be prudent to wait for the results of Hydro's program before determining whether a wood pole test and treatment program is warranted for its transmission lines.

In Order No. P.U. 5 (2020), the Board stated:

"The Board is satisfied that Newfoundland Power's current practices are reasonable in the circumstances. The Board believes that it may be appropriate for Newfoundland Power to review its practices upon the completion of the second inspection cycle in relation to Hydro's test and treat program."⁴

Newfoundland Power's Comments

Hydro's Wood Pole Line Management Report (2018-2022)

Hydro's *Wood Pole Line Management Program Progress Report (2018-2022)* indicates that the Wood Pole Line Management Program is achieving the goals of increasing reliability, extending asset life, reducing Hydro's environmental footprint and reducing total cost of ownership.⁵

Newfoundland Power has initiated discussions with Hydro and has further meetings planned with Hydro's technical and engineering staff to better understand the potential benefits of a chemical re-treatment program for Newfoundland Power's transmission line wood poles. For example, Newfoundland Power plans to request additional data regarding: (i) the incremental cost of a wood pole re-treatment program; (ii) age profile data of wood poles included in the test and treat program including the optimal commencement age for chemical re-treatment; and (iii) the extent to which both annual inspections and chemical re-treatment have individually contributed to Hydro's overall reliability performance.

Next Steps

Newfoundland Power is currently undertaking a review of its asset management practices to ensure its practices continue to be adequate, given the age of its electrical system, and remain consistent with industry best practice. This review will include an assessment of the Company's transmission line asset management practices including its capital investment and maintenance programs. The potential implementation of a wood pole chemical re-treatment program for the Company's transmission assets would be considered in the full context of the lifecycle management of the Company's transmission assets. The review will also ensure any changes to the Company's transmission line asset management practices are consistent with utility best practice.

³ See Newfoundland Power's *2020 Capital Budget Application, Brief of Argument, December 11, 2019*, page 37.

⁴ See Order No. P.U. 5 (2020), page 22, lines 24-27.

⁵ See Hydro's *Wood Pole Line Management Program Progress Report (2018-2002)*, Section 5.0, page 12.

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Newfoundland Power will provide an update on the status of the asset management review as part of the 2025 Capital Budget Application. Any changes to Newfoundland Power's transmission line asset management practices resulting from the review will be included as part of a future capital budget application.

Concluding

We trust this is in order. If you have any questions regarding the foregoing, please contact the undersigned.

Yours truly,



Lindsay Hollett
Senior Legal Counsel

ec. Shirley Walsh
Newfoundland & Labrador Hydro

Dennis M. Browne, K.C.
Browne Fitzgerald Morgan & Avis

Paul L. Coxworthy
Stewart McKelvey

Newfoundland Power Inc.

55 Kenmount Road • P.O. Box 8910 • St. John's, NL A1B 3P6

PHONE (709) 737-5364 • FAX (709) 737-2974 • lhallett@newfoundlandpower.com