

1 Q. **Reference: Project 2: L23/24 Steel-Tower Transmission Line Renewal (2026 - 2029)**

2 Page 3, line 14-15.

3 “That the only alternative to repairing the identified deficiencies on L23 and L24 would be to
4 construct new lines between Churchill Falls and Wabush and decommission L23 and L24.”

5 (a) Explain the basis for Hydro’s determination that a new transmission line(s) would be
6 much more costly. Was a net present value (“NPV”) analysis of the life extension
7 alternative and the construction of a new transmission lines alternative completed? If
8 yes, provide the NPV analysis. If not, why not?

9 (b) Are there any related projects in the near term that will require new transmission
10 lines to serve growth in Labrador West? If yes, will these projects impact the future
11 need for Transmission Lines L23 and L24?

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14 A. a) Based on Newfoundland and Labrador Hydro’s (“Hydro”) recent experience with
15 materials and construction contracts, the development of a new 230 kV transmission line
16 would be estimated at over \$1 million per kilometer (“km”) or higher depending on site-
17 specific conditions. As L23 and L24 are each approximately 215 km in total length, and
18 the proposed upgrade life extension project totals an estimated cost of \$8,577,400 over
19 four years, a NPV analysis was not deemed necessary. If a new line were to be built
20 alongside L23/L24, the existing lines would still be maintained and kept in service for
21 reliability purposes, as they are required to serve load in Labrador West, and have not
22 reached the end of their useful service life. A new line would be subject to the same
23 lifecycle costs, and therefore, comparison of up-front capital costs demonstrates that the
24 life extension of L23 and L24 is significantly less costly than the construction and
25 maintenance of a new line.

26 b) Yes, there are related projects underway that may require new transmission lines to
27 serve growth in Labrador West in the future. However, even under the expansion

1 scenarios currently being studied, Transmission Lines L23 and L24 will remain necessary
2 to support existing residential and commercial load.

3 These lines are currently operating at their limit which contributed to Hydro's request to
4 extend the Temporary Load Restriction to Labrador West, approved in the Board of
5 Commissioners of Public Utilities Order No. P.U. 34(2019)¹ and, imposing a load
6 restriction on service additions exceeding 200 kW. This constraint highlights the need
7 for additional transmission capacity to support future growth in the region.

8 In response to multiple large industrial customer requests, and reflective of the Churchill
9 Falls memorandum of understanding announcement in December 2024 and the
10 evolving nature of customer proposals, Hydro is conducting a customer-funded study to
11 assess long-term transmission options from Churchill Falls to Labrador West. The study
12 will help identify the most cost-effective way to meet customer requirements. Hydro is
13 also working with Hydro-Québec to explore potential interconnection options.

14 The study evaluated seven transmission expansion scenarios centered around a
15 proposed new terminal station at Flora Lake. There is much work left to be done in the
16 next stages of the study to refine the system design, but it is clear that under the
17 expansion scenarios studied, L23 and L24 continue to play a critical role in the Labrador
18 West transmission system.

¹ Regulation 17 of Hydro's Schedule of Rates, Rules and Regulations, pg. RR-16.