

1 **Q.** Reference: "2027 Capital Budget Application," Newfoundland Power Inc.,
2 May 29, 2026, sch. B, Distribution Feeder COB-02 Extension, pp. 7-8; and
3 Transmission Line 114L Replacement and 142L Relocation, p. 109.

4
5 Newfoundland Power states that the latest estimates for both the
6 Distribution Feeder COB-02 Extension and the Transmission Line 114L
7 Replacement and 142L Relocation projects are higher than initially estimated
8 as part of the Gander-Twillingate Transmission System Planning Study.
9 Newfoundland Power further states that the original NPV analysis was re-
10 evaluated using the latest costs for both projects, and that the results confirm
11 the recommended alternative remains least-cost.

12
13 Please provide the updated NPV analysis, including all assumptions, updated
14 project costs by alternative, discount rate, study period, timing of capital
15 expenditures, operating or maintenance cost impacts, reliability or voltage-
16 related benefits included, and the results of any updated sensitivity analyses.

17
18 **A.** The *Distribution Feeder COB-02 Extension* and the *Transmission Line 114L Replacement*
19 *and 142L Relocation* projects are both elements of Alternative 2 of the *Gander-*
20 *Twillingate Transmission System Planning Study* (the "2025 Planning Study") filed as
21 part of the Company's *2025 Capital Budget Application*. Alternative 2 was selected as the
22 least cost alternative to resolve identified issues on the 66 kV transmission network
23 supplying the Gander-Twillingate area. These projects were not components of other
24 alternatives identified in the 2025 Planning Study.

- 1 Updated project costs for Alternative 2 are provided in Table 1, with revised project and
2 capital costs highlighted in grey.

Table 1 Revised Alternative 2 Capital Costs (\$ Millions)				
Activity	2025	2026	2027	Total
Build new transmission line from LEW to BOY substations	1.9	9.3	9.6	20.8
Purchase GAN-T2 Replacement for BOY Substation	0.02	3.9	0.3	4.2
Convert BOY Substation to 138 kV	-	0.4	4.1	4.5
LEW Substation Upgrades (138 kV termination)	-	0.1	1.5	1.6
Distribution Feeder COB-02 Extension ¹	-	-	1.8	1.8
Transmission Line 114L Replacement and 142L Relocation ²	-	-	2.3	2.3
New 138 kV Grounding Transformer for GAN Substation	-	0.02	2.0	2.0
Project Total (2025-2027)³	1.9	13.7	21.6	37.2
Future Rebuilds (2030-2036) ⁴	-	-	-	23.3

- ¹ In the 2025 Planning Study, the corresponding project was labeled *Extension of COB-02 for JON Substation* and had a 2027 capital cost of \$1.2 million. See page 17 of the *Gander-Twillingate Transmission System Planning Study* in the *2025 Capital Budget Application*. The revised project cost for *Distribution Feeder COB-02 Extension* is \$1.82 million, which corresponds to a difference of approximately \$620,000. See page 6 of Schedule B of the *2027 Capital Budget Application*.
- ² In the 2025 Planning Study, the corresponding project was labeled *Extension of Transmission Line 142L for GBY and Transmission Line 104L* and had a 2027 capital cost of \$1.5 million. See page 17 of the *Gander-Twillingate Transmission System Planning Study* in the *2025 Capital Budget Application*. The revised project cost for *Transmission Line 114L Replacement and 142L Relocation* is \$2.34 million, which corresponds to a difference of approximately \$834,000. See page 105 of Schedule B of the *2027 Capital Budget Application*.
- ³ In the 2025 Planning Study, total 2027 capital costs were originally \$20.2 million, and total 2025-2027 project costs were originally \$35.8 million.
- ⁴ Includes costs associated with rebuilding Transmission Line 142L and rebuilding 20 kilometres of 114L between Clarke's Head and Boyd's Cove ("BOY") Substation. Since the revised project now includes the relocation and rebuild of a section of 142L in 2027, the future cost associated with rebuilding 142L is expected to be lower than the amount previously budgeted for the 2030-2036 period. However, to ensure the revised NPV remains conservative, the full future rebuild cost was retained in the analysis. No change is expected to the future rebuild cost of 114L, as the 2025 Planning Study included costs to construct a new double-circuit transmission section across the Gander Bay causeway for 142L and 114L. Under the revised alternative, only a single-circuit section of 114L will be constructed across the causeway; therefore, the future 2030-2036 rebuild requirements for 114L remain unchanged.

The 2025 Planning Study also conducted various economic assessments of alternatives, including net-present value ("NPV") analyses of customer revenue requirements, using the Company's 2025 pre-tax weighted average cost of capital of 6.65% as the discount rate within the NPV analyses.

Table 2 shows the results of the revised NPV analysis based on the updated capital costs provided in Table 1.

Table 2 Revised NPV Analysis (2025–2036 Expenditures) (\$ Millions)	
Alternative #	NPV
1	63.4
2 (Revised)	62.2
3	90.6

The Company also conducted numerous sensitivity analyses based on (i) the impact of varying marginal costs on transmission line losses; (ii) the impact of varying estimates by asset class; and (iii) the timing of the future complete 142L and 114L rebuilds. The results of the revised sensitivity analyses are presented in tables 3-5.

Table 3 Revised NPV Sensitivity Analysis Varying Marginal Costs (\$ Millions)		
Alternative #	Low Marginal Costs	High Marginal Costs
1	61.0	65.8
2 (Revised)	60.0	64.4
3	88.2	93.0

Table 4 Revised NPV Sensitivity Analysis Varying Estimates by Asset Class (\$ Millions)		
Alternative #	T&D +10% Sub -10%	T&D -10% Sub +10%
1	67.1	59.7
2 (Revised)	65.4	58.9
3	89.8	91.4

Table 5 Revised NPV Sensitivity Analysis Timing of 142/114L Rebuild (\$ Millions)		
Alternative #	2030	2036
1	66.5	60.8
2 (Revised)	65.0	59.7
3	93.7	87.9

The results in tables 2-5 illustrate that Alternative 2 of the 2025 Planning Study remains least cost across all sensitivities when accounting for the updated costs associated with the proposed *Distribution Feeder COB-02 Extension* and *Transmission Line 114L Replacement and 142L Relocation* projects.

In addition to the economic analysis completed in the 2025 Planning Study, the impacts of transmission level voltages and transmission supply reliability were also assessed for each alternative.

In terms of modifications to the scope of Alternative 2 with respect to the *Transmission Line 114L Replacement and 142L Relocation* project, there are no changes to the voltage profiles originally provided in the 2025 Planning Study.⁵

⁵ See pages 16 and 21 of the *Gander-Twillingate Transmission System Planning Study* in the *2025 Capital Budget Application*. There is no change to the originally proposed system diagram associated with Alternative 2, and as a result of the normally-open point between 142L and Gander Bay ("GBY") substation, the modified scope of the *Transmission Line 114L Replacement and 142L Relocation* project will not result in any changes to the voltages modeled on page 21 of the referenced report.

1 With respect to reliability considerations, the original Alternative 2 was expected to be
2 substantially more reliable than alternatives 1 and 3, primarily due to more road-side
3 transmission infrastructure and increased accessibility associated with the new 138 kV
4 transmission line between Lewisporte and BOY substations ("Transmission Line 148L").⁶
5 The revised Alternative 2 does not modify Transmission Line 148L, but removes the
6 originally proposed double-circuit transmission structures that would have provided
7 supply to GBY Substation through transmission lines 142L and 114L. As a result, the
8 revised Alternative 2 is expected to be more reliable than the original Alternative 2 as
9 supply to GBY Substation would no longer be subjected to a single point of failure.⁷

⁶ See the *2025 Capital Budget Application, Gander-Twillingate Transmission System Planning Study*, pages 24-25.

⁷ See the *2027 Capital Budget Application*, Schedule B, pages 107-109.