

- 1 Q. Hydro’s correspondence dated October 5, 2023, Attachment 2, page 9 of 25. Table 9 outlines
2 the \$35 million cost estimate for the auxiliary upgrades to the diesel generating plants that
3 Hydro has determined will be required in order to facilitate the interconnection of existing
4 plants alternative (Option 6).
- 5 a) Please provide a breakdown of the cost estimates for each site location as well as a detailed
6 description of the work and why it is necessary.
- 7 b) Please confirm that engineering site visits to each of the diesel generating stations were
8 undertaken as part of the determination of these upgrade costs. If not confirmed, please
9 detail the process by which these estimates were generated.
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- 11
- 12 A. a) A detailed scope description can be found in the Summary of Technical Note RP-TN-089.¹
13 Further detail is provided herein.^{2,3,4}
- 14 Each of the diesel generating stations in St. Lewis, Mary's Harbour, and Port Hope Simpson
15 would require protection and controls (“P&C”) upgrades, a new section of main switchgear,
16 and new substation feeders to allow for full plant output capacity as well as fire suppression
17 systems to protect generation critical assets. The substation would need to be upgraded to
18 allow for the increased output and increase to 25 kV distribution.

¹ “Newfoundland and Labrador Hydro – 2021 Capital Budget Supplemental Application Approval of the Construction of Hydro’s Long-term Supply Plan for Southern Labrador – Revision 1 – Safe and Reliable Power Supply to Charlottetown – Reply,” Newfoundland and Labrador Hydro, October 5, 2023, att. 2, sec. 2.2.1.

² Table 6 of “Southern Labrador Communities – Integrated Resource Plan Response to Newfoundland and Labrador Board of Commissioners of Public Utilities Information Request Issues Aug 1, 2023,” filed as Attachment 1 of “Newfoundland and Labrador Hydro – 2021 Capital Budget Supplemental Application Approval of the Construction of Hydro’s Long-term Supply Plan for Southern Labrador – Revision 1 – Safe and Reliable Power Supply to Charlottetown – Reply,” Newfoundland and Labrador Hydro, October 5, 2023, references the direct construction costs for Alternative 6 (Interconnection of Existing Plants) for Mary’s Harbour and Port Hope Simpson as \$10.3 million and \$7.7 million, respectively. This was an error with \$1 million inadvertently being misallocated between sites. This change has no material impact on any analysis completed.

³ Table 9 of Summary of Technical Note RP-TN-089 referenced the direct and indirect costs for Alternative 6 (Interconnection of Existing Plants) for Mary’s Harbour and Port Hope Simpson as \$13.7 million and \$10.3 million, respectively. This was also an error due to the aforementioned misallocation of costs between Mary’s Harbour and Port Hope Simpson. The corrected values should be \$12.4 million for Mary’s Harbour and \$11.7 million for Port Hope Simpson; St. Lewis remains unchanged. The corrected numbers are provided in Table 1 and Table 2 of part a) of this response. This change has no material impact on any analysis completed.

⁴ The total costs of the upgrades across all three sites has not changed.

1 As each diesel generating station could now be required to run at full capacity, station loads
2 and other infrastructure will be affected:

- 3 ● St. Lewis would require a site extension to allow for a new, larger substation and fire
4 suppression building. One additional generator would be added to this site to help meet
5 demand, as this site is the only one that has available space for a new unit. The increase
6 in switchgear size would lead to an interior wall relocation;
- 7 ● The changes to the switchgear and station service in Mary's Harbour would require the
8 relocation of an interior wall and a building extension. The new space would be
9 allocated to relocated equipment required to facilitate the switchgear upgrade and to
10 allow for space for the fire suppression equipment;
- 11 ● Port Hope Simpson would require a site extension to allow for a new, larger substation.
12 The changes to the switchgear and station service would require the relocation of
13 existing equipment to the current workshop. To restore the workshop and allow for fire
14 suppression, a building extension is required; and
- 15 ● P&C upgrades will also be required to interconnect the diesel generating stations and
16 supply the southern Labrador communities. This would need to be evaluated further to
17 confirm feasibility.

18 In order to complete the work and maintain community power supply, mobile generation
19 would be required throughout the project duration. Limitations and challenges have been
20 outlined in Section 4.2 of the Summary of Technical Note RP-TN-089. Table 1, Table 2, and
21 Table 3 provide a breakdown of costs by site.

Table 1: Breakdown of Costs – Mary's Harbour (\$000)

Civil/Mechanical Upgrades	2,382
Electrical and P&C Upgrades	4,923
Temporary Generation and Distribution	1,767
Front-End Engineering and Design	200
Owner's Costs, Interest, and Contingency	3,125
Total	12,397

Table 2: Breakdown of Costs – Port Hope Simpson (\$000)

Civil/Mechanical Upgrades	1,845
Electrical and P&C Upgrades	4,923
Temporary Generation and Distribution	1,767
Front-End Engineering and Design	200
Owner’s Costs, Interest, and Contingency	2,944
Total	11,679

Table 3: Breakdown of Costs – St. Lewis (\$000)

Civil/Mechanical Upgrades	1,070
Electrical and P&C Upgrades	6,203
Temporary Generation and Distribution	655
Front-End Engineering and Design	200
Owner’s Costs, Interest, and Contingency	2,739
Total	10,867

- 1 **b)** Yes, staff from Newfoundland and Labrador Hydro’s Engineering and Long-Term Asset
- 2 Planning departments visited each site as a part of the determination of these cost
- 3 estimates.