

1 Q. Reference: 2021 Capital Budget Supplemental Application Approval of the Construction of
2 Hydro’s Long-term Supply Plan for Southern Labrador – Revision 1 – Safe and Reliable Power
3 Supply to Charlottetown – Reply, Attachment 2, Summary of Technical Note RP-TN-089,
4 page 7 of 25, Table 6.

Table 6: Capital Costs of Diesel Plant Construction (\$000)³

	Regional	CHT	MSH	PHS	SLE
Total Costs	49,010	40,384	37,413	37,296	36,546

5 Table 6 above provides the capital costs of diesel plant construction for each of the existing
6 diesel plants and the regional diesel plant. In this table, the construction cost of a replacement
7 Charlottetown diesel generating station is estimated to be \$40,384,000. In Schedule 1,
8 Attachment 1, page 33, Table 7, the capital cost for the Charlottetown diesel generating station
9 replacement is stated to be \$21,400,000.

- 10 a) What is the basis of the near 100% increase in capital cost to rebuild the Charlottetown
11 diesel generating station? In the response, please provide a table showing the cost for
12 the major components of the Charlottetown diesel generating station that comprise the
13 two estimates, and the reason for each increase.
- 14 b) Has Hydro benchmarked the capital cost of a replacement for the Charlottetown diesel
15 generating station against the cost of constructing similar stations in comparable
16 isolated rural systems? If so, please provide the analysis completed, including the
17 location of the system, size of the load served, and associated capital costs. If not, why
18 not?

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21 A. a) Newfoundland and Labrador Hydro’s (“Hydro”) original estimate for the replacement of the
22 Charlottetown Diesel Generating Station (“CHT”) was filed in 2021¹ and was developed on

¹ “Long-Term Supply for Southern Labrador,” Newfoundland and Labrador Hydro, rev. October 5, 2023 (originally filed July 16, 2021).

23 the basis of the market conditions at the time. That estimate is no longer valid, particularly
24 given the unprecedented degree of inflation and supply chain constraints that have
25 materialized. Additionally, the 2021 estimate is considered a Class 5 estimate that carries an
26 expected accuracy range of +100%/-50%, which reflects a cost range of \$10.7 million to
27 \$42.8 million. Hydro’s updated estimate, prepared in 2023, is based on current market
28 conditions and reflects a more refined Class 4 estimate with an expected accuracy range of
29 +50%/-30%, corresponding to a cost range of \$28.3 million to \$60.6 million. As depicted in
30 Figure 1, Hydro’s updated estimate of \$40.4 million falls within the range of its original
31 estimate, albeit at the higher end of the range due to the aforementioned market
32 conditions.

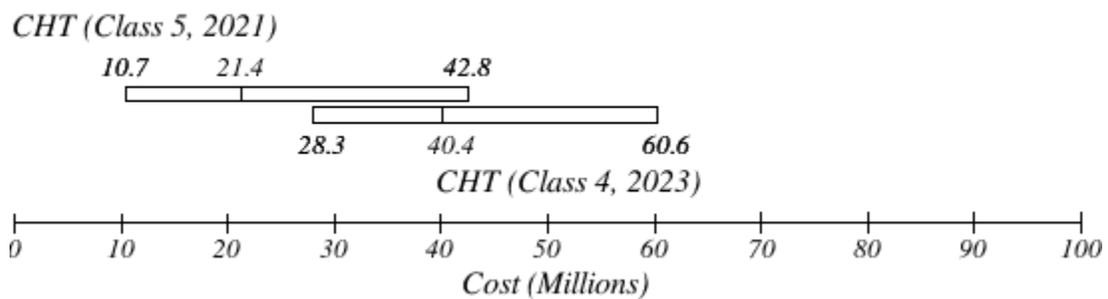


Figure 1: CHT Estimate Comparison

33 Due to the divergence between the level of detail and project definition between a Class 5
34 and Class 4 estimate, Hydro is unable to provide a comparison of the two estimates on a
35 component basis. Please refer to Hydro’s response to PUB-NLH-094 of this proceeding for
36 further discussion of the drivers of cost increases between Hydro’s original application and
37 current estimates.

38 **b)** Hydro has not benchmarked its capital cost estimate for CHT against the cost of similar
39 diesel generating stations. Hydro’s current estimate reflects the specific market conditions,
40 location, and timeframes for this project; Hydro does not believe that comparison to
41 historical diesel generating station construction costs would provide adequate insight for
42 these specific circumstances. Hydro prepared its current Class 4 estimate based on the
43 detailed Class 3 estimate for the Regional Plant option prepared by Hydro’s independent
44 engineering consultant, Wood PLC. This was reviewed by Midgard Consulting Inc.
45 (“Midgard”) who stated that “the costs are in line with its own observations of the

46 market...these costs are in many cases significantly higher than projected in the model
47 generated in late 2022 for the IRP.”² Please refer to part a) of Hydro’s response to
48 PUB-NLH-094 of this proceeding for further discussion on Midgard’s review of cost
49 estimates.

² “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. 1, p. 19 of 74.