

1 Q. **Reference: Midgard Consulting *Southern Labrador Communities – Integrated Resource Plan,***
2 **March 28, 2023, Page 88, Lines 7-11.**

3 *“Decreases in future load would simply reduce diesel use while not alleviating*
4 *NLH from securing requisite capacity resources in the near term. While a phased*
5 *approach would potentially shelter NLH from this risk, the cost differential of \$5*
6 *million between the recommended scenario and the least-cost phased scenarios*
7 *is considered a significant cost to protect against future uncertainty.”*

8 Please provide a sensitivity analysis that includes an annual 1% decline in customer capacity and
9 energy requirements over the 25-year evaluation period.

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12 A. *This response has been provided by Midgard Consulting Inc. (“Midgard”).*

13 The preferred solution adopted from the Midgard “Southern Labrador Communities - Integrated
14 Resource Plan” (“Midgard IRP”),¹ filed with the Board of Commissioners of Public Utilities on
15 March 31, 2023,² has been staged to meet existing load requirements. Projecting future capacity
16 declines would have no impact on the necessary solution for today’s load.

17 A 1% annual energy decline was modelled and it shows no change to the preferred solution.
18 Presented below is Table 35 from the Midgard IRP, restated with the assumed annual 1%
19 decline in energy demand.

¹ “Southern Labrador Communities - Integrated Resource Plan,” Midgard Consulting Inc., March 28, 2023.

² “Long-Term Supply of Southern Labrador – Phase 1 – Midgard Consulting Inc. Report,” Newfoundland and Labrador Hydro, March 31, 2023, att. 1.

Rank	Option	NPV Costs	Cost Increment
1	C (N-1) + Renewables	\$150,300	-
2	C (N-1)	\$152,800	2,500
3	C + Renewables	\$154,400	4,100
4	F(i) (N-1) + Renewables	\$155,300	5,000
5	C	\$156,900	6,600
6	F(i) (N-1)	\$157,900	7,600
7	F(ii) (N-1) + Renewables	\$159,800	9,500
8	F(i) + Renewables	\$161,000	10,700
9	F(ii) (N-1)	\$162,300	12,000
10	F(i)	\$163,600	13,300
11	F(ii) + Renewables	\$163,700	13,400
12	A + Renewables	\$165,800	15,500
13	F(ii)	\$166,200	15,900
14	A	\$168,300	18,000
15	F(iii) + Renewables	\$168,300	18,000
16	C (N-1) + Natural Gas + Renewables	\$168,900	18,600
17	D + Renewables	\$170,100	19,800
18	F(iii)	\$170,900	20,600
19	C + Natural Gas + Renewables	\$173,400	23,100
20	D	\$173,400	23,100
21	B + Renewables	\$173,600	23,300
22	B	\$176,100	25,800
23	E + Renewables	\$176,400	26,100
24	E	\$180,300	30,000
25	C (N-1) + Natural Gas	\$182,600	32,300
26	C + Natural Gas	\$187,000	36,700
27	G	\$204,400	54,100
28	H	\$284,100	133,800