

1 Q. Reference: RRAS, 2022 Update, Vol. I, page 19 (43 pdf); Vol. III, page 11 (92 pdf), Table 4

2 Citation 1:

3 Considered Potential Labrador Load Scenarios:

4 Case I: Base: Reflects Hydro’s Rural Load Forecast Spring 2022, which includes
5 existing data centre requirements and existing industrial loads.

6 Case II: High Growth: Developed to include requests for service submitted to
7 Hydro as part of the Network Additions Policy. Specifically, some of the
8 additional load requirements in Case II: High Growth are for the existing
9 Industrial customers, such as the Department of National Defence at 5 Wing
10 Goose Bay, and other firm requirements from non-data centre customers,
11 totalling 330 MW.

12 Service requests from the Network Additions Policy currently total 1,300 MW,
13 exceeding the amount noted in Case II: High Growth, and are further explained
14 in Section 4.4 of the “Long-Term Resource Plan” included as part of the 2022
15 Update. As there remains a high level of uncertainty about the total service
16 requests in Labrador, only requests from existing Industrial customers have
17 been included in Case II: High Growth. As the Network Additions Policy process
18 advances, Hydro will continue to assess the level of service requests to include
19 in the load forecast or to assess sensitivities to the Case I: Base, as appropriate.
20 Early discussions with various proponents interested in advancing new
21 industries, such as hydrogen production, that would have a major impact on the
22 system planning conclusions are not included in either Case I: Base or Case II:
23 High Growth for the Island due to the unconfirmed nature of their needs.
24 Should projects make a formal and final request for service that impacts the
25 system planning forecast, Hydro will update the forecast. Significant loads not
26 current[ly] in Case I: Base or Case II: High Growth either on the Island or in
27 Labrador will have a material effect on the conclusions in the 2022 Update,
28 including the timing and size of new resources required. More information on
29 the development of the load forecast is contained in Section 4.0 of the “Long-
30 Term Resource Plan” included as part of the 2022 Update. (underlining added)

1 Citation 2 :

Table 4: Labrador Interconnected System Electricity Load Growth Summary – 2022 Load Forecast^{49,50,51}

		2021–2027	2021–2032
Case I: Base	MW	12.0%	13.5%
	GWh	9.2%	10.1%
Case II: High Growth	MW	33.5%	79.5%
	GWh	31.3%	83.3%

- 2 a) Please provide a copy of Hydro’s Rural Load Forecast Spring 2022.
- 3 b) Please confirm that the Labrador High Growth Load Scenario includes 330 MW of growth,
 4 including DoD and other firm no-data centre customers, but does not include:
- 5 i. Any new data centre or cryptocurrency customers,
- 6 ii. Any non-firm load, or
- 7 iii. Any loads from hydrogen production or other new industries, even though they
 8 would have a material effect on the conclusions in the 2022 Update, including the
 9 timing and size of new resources required.
- 10 c) Please confirm that, given these exclusions, it remains possible and even likely that Labrador
 11 loads will be higher than those included in the Case II: High Growth scenario.
- 12 d) Please provide figures for a third “very high-growth” scenario that includes plausibly
 13 foreseeable quantities for these additional categories of load.
- 14 e) Please provide a revised version of Chart 4 (page 12, 93 pdf) including a new line for the new
 15 scenario provided in response to the previous question.
- 16 f) Please confirm that the 2023 Update will include a third “very high-growth” scenario for
 17 Labrador that can be thought of as a reasonable upper bound for expected load growth in
 18 the LIS. If not, please explain why not.

- 1 A. a) Please refer to LAB-NLH-040, Attachment 1 for Newfoundland and Labrador Hydro's
2 ("Hydro") Rural Load Forecast for spring 2022.
- 3 b) Hydro confirms the Labrador High Growth scenario only includes additional firm loads from
4 existing Industrial customers, Commercial customers that are not data centres, and
5 increased electric vehicle charging loads.
- 6 c) Hydro confirms that the Labrador Interconnected System Case II: High Growth scenario does
7 not include all of the requests submitted as part of the ongoing *Network Additions Policy –*
8 *Labrador Interconnected System ("Network Additions Policy")* process¹ at the time the
9 "*Reliability and Resource Adequacy Study – 2022 Update*"² was filed. As the *Network*
10 *Additions Policy* process advances, Hydro will continue to assess the level of service requests
11 to include in the load forecast or to assess sensitivities to the base case, as appropriate.
12 However, Hydro notes that the risk of exceeding the High Growth scenario has been
13 reduced because of Order-in-Council OC2022-266,³ which removes Hydro's obligation to
14 provide firm service to cryptocurrency customers.
- 15 d) An additional case sensitivity that includes the total firm requests, excluding cryptocurrency
16 mining loads, for the *Network Additions Policy* will be included in the Reliability and
17 Resource Adequacy Study – 2023 Update.
- 18 e) Please refer to part d) of this response.
- 19 f) Please refer to part d) of this response.

¹ Newfoundland and Labrador Hydro (2020). *Network Additions Policy – Labrador Interconnected System*, <<https://nlhydro.com/wp-content/uploads/2021/03/Network-Additions-Policy.pdf>>.

² "Reliability and Resource Adequacy Study - 2022 Update," Newfoundland and Labrador Hydro, October 3, 2022.

³ OC2022-266 (*Public Utilities Act*, RSNL 1990, c P-47 and *Electrical Power Control Act*, 1994, SNL 1994, c E-5.1), <<https://www.exec-oic.gov.nl.ca/public/oic/details?order-id=20484>>.

Newfoundland and Labrador Hydro
Long-Term Labrador Interconnected Load Forecast Summary^{1,2}

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Labrador City										
Peak (MW) ³	58.5	58.7	59.1	59.4	59.6	59.9	60.4	60.8	61.3	61.8
Energy (GWh) ³	256.6	257.6	258.9	260.3	261.0	261.8	259.7	260.7	261.6	262.5
Revenue Sales (GWh)	244.1	245.0	246.3	247.6	248.3	249.1	249.7	251.3	252.1	253.0
Wabush										
Peak (MW) ^{3,4}	22.5	22.7	23.4	23.7	23.9	24.1	24.3	24.5	24.7	24.9
Energy (GWh) ³	145.7	146.6	149.5	150.9	151.7	152.5	153.0	153.6	154.1	154.6
Revenue Sales (GWh)	141.7	142.6	145.4	146.8	147.5	148.2	148.6	149.6	150.1	150.6
Company Use (GWh)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Happy Valley-Goose Bay										
Peak (MW) ^{3,5}	78.1	78.7	79.1	79.7	80.1	80.6	81.5	82.3	83.2	84.1
Energy (GWh) ³	340.3	343.2	344.6	347.0	348.7	350.5	353.6	356.6	359.8	363.3
Revenue Sales (GWh)	325.9	328.7	330.1	332.3	334.0	335.7	338.7	341.6	344.7	348.0
Company Use (GWh)	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Totalized Labrador Interconnected Industrial Requirements (Net of Transmission System Losses)										
Peak (MW) ⁵	313	313	313	313	313	313	313	313	313	313
Energy (GWh) ³	2,028	2,028	2,028	2,028	2,028	2,028	2,028	2,028	2,028	2,028
Total Labrador Interconnected Requirements (Net of Transmission Systems Losses)										
Peak (kW) ⁶	446.7	447.6	448.9	450.0	450.7	452.8	453.8	454.8	456.0	457.3
Energy (GWh)	2,770.9	2,775.7	2,781.4	2,786.5	2,785.4	2,790.1	2,794.6	2,799.2	2,803.8	2,808.7

¹ All peaks are presented on an annual peak basis.

² Excludes Churchill Falls demand of 0.8 MW and annual energy requirements of 3 GWh.

³ Peak and energy equate to distribution system requirements at terminal station delivery points.

⁴ Peak requirements exclude temporary service for BlockLAB customer.

⁵ Peak requirements at terminal station delivery points to meet region peak.

⁶ Peak at terminal station delivery point coincident with Labrador Interconnected System peak.