

1 Q. Please provide a table summarizing Hydro’s most recent forecast of demand and supply on the
2 Island Interconnected System and for the Avalon Peninsula including all assumptions for the
3 winters of 2020/21, 2021/22 and 2022/23 assuming the LIL is not available.

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6 A. Near-term reliability and resource adequacy through the winter 2023–2024 operating season
7 was detailed in Newfoundland and Labrador Hydro’s (‘Hydro’) most recent Near-Term
8 Reliability Report, filed with the Board May 15, 2020. The intention of the Near-Term Reliability
9 Report is to provide an in-depth view of system risks and mitigating measures to ensure
10 customer requirements are met through the full system transition while the Muskrat Falls assets
11 are placed in service. Ten scenarios were analyzed as part of that report to assess system
12 reliability under a range of potential system conditions. Scenarios 1 through 5 of that report
13 assumed the Labrador-Island Link (“LIL”) would not be available in advance of June 1, 2021,
14 meaning it would not be available for the winter 2020–2021 operating season. Scenarios 6
15 through 10 of that report assumed the LIL would not be available in advance of June 1, 2022,
16 meaning it would not be available for either of the winter 2020–2021 operating season or the
17 winter 2021–2022 operating season. While there were no cases which contemplated that the LIL
18 would remain unavailable through the winter 2022–2023 operating season, if the LIL remained
19 unavailable through that season, system risk would be expected to be consistent with the
20 results presented for 2021 in scenarios 1 through 10 and 2022 in the results for scenarios 6
21 through 10.

22 Table 1 presents the most recent Island Interconnected System Demand forecast for the next
23 three winters, assuming the LIL is not available .

Table 1: Island Interconnected System Peak Demand Forecast (MW)

	2020–2021	2021–2022	2022–2023
Utility	1,484	1,485	1,495
Industrial Customer	178	180	180
Island Interconnected System Customer Coincident Demand	1,662	1,665	1,674
Island Interconnected System Transmission Losses and Station Service	76	76	76
Total Island Interconnected System Demand	1,738	1,741	1,750

1 Table 2 presents the expected reserve margin for each of the next three winters, in the event
2 the LIL is not available. Hydro’s current planning criterion requires a reserve margin in excess of
3 240 MW.

Table 2: Reserve Margin Analysis

	Winter 2020–2021	Winter 2021–2022	Winter 2022–2023 ¹
A. Island Interconnected System Forecast Peak Demand ²	1,738	1,741	1,750
B. Less Available Capacity assistance	1,633	1,636	1,645
C. Capacity at peak	2,031	2,031	2,031
Reserve Margin (MW) (C-B)	398	395	386

4 Hydro notes that TL267, a third transmission line between the Bay d 'Espoir Hydroelectric
5 Generation Station and the Western Avalon Terminal Station on the Avalon Peninsula was
6 placed in service in 2017. Having a third transmission line in this corridor provides system
7 reliability benefits by increasing the number of transmission lines in the corridor such that if one
8 were to fail (n-1 scenario) two lines would remain in service, increasing the stability of the
9 transmission network particularly during faulting events, and helping to alleviate system
10 constraints relating to power flow to the Avalon Peninsula. The in-service of TL267 in 2017
11 addressed pre-existing transmission restrictions to the Avalon Peninsula, meaning
12 supplementary analysis of Avalon reliability is no longer required.

¹ Assumes Holyrood Thermal Generating Station remains in service and extension of Capacity Assistance contract with Corner Brook Pulp and Paper Limited in the event LIL remains unavailable.

² Includes losses and station service.