

1 Q. Please indicate the forecast IIS peak load for 2020. Please indicate the total on-island
2 supply including Hydro's and Newfoundland Power's hydro/thermal sources and any other
3 sources of electrical supply available to Hydro in the event of a bipole outage on the LIL
4 during that peak load timeframe.

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6 A. The forecast peak customer coincident demand for the Island Interconnected System in
7 2020 is 1662 MW on a P50 basis. It is expected that the Island Interconnected System
8 forecast peak demand would be 60 MW higher under P90 weather conditions. This forecast
9 load excludes system losses.¹

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11 The planned on-Island generating capacity at time of peak in 2020 is 2001 MW. In addition
12 to the generation capacity there is an interruptible load capacity of approximately 110 MW,
13 for a total on-Island capacity of 2111 MW.² This excludes any potential market capacity
14 purchases over the Maritime Link. While the question requests the information be provided
15 for 2020, Newfoundland and Labrador Hydro ("Hydro") also presents the same information
16 for the Island Interconnected System following the retirement of the Holyrood Thermal
17 Generating Station ("Holyrood") and assuming retirement of the Gas Turbine facilities at
18 Hardwoods ("Hardwoods") and Stephenville ("Stephenville"). This results in a net reduction
19 of 590 MW of capacity for the Island Interconnected System. Table 1 provides a detailed
20 description of the assumptions for available capacity in both 2020 and following the
21 retirement of Holyrood, Hardwoods, and Stephenville.

¹ The associated losses are dependent on the generation dispatch. Transmission and resource modelling exercises indicate that losses could exceed 100 MW with the Labrador-Island Link out of service at the time of peak system losses and station service requirements, assuming the availability of sufficient generation to fully supply customer requirements.

² The interruptible load includes Capacity Assistance of 100.4 MW from Corner Brook Pulp and Paper Limited, as per the test of available capacity assistance for winter 2018–2019 conducted November 6, 2018, and 9.9 MW of Newfoundland Power curtailable load.

Table 1: Assumptions for Available Capacity

	Gross Continuous Unit Rating (MW)	
	2020	Post retirement of Holyrood, Hardwoods, and Stephenville
Hydro-Owned Hydraulic		
Bay d'Espoir - Unit 1	76.5	76.5
Bay d'Espoir - Unit 2	76.5	76.5
Bay d'Espoir - Unit 3	76.5	76.5
Bay d'Espoir - Unit 4	76.5	76.5
Bay d'Espoir - Unit 5	76.5	76.5
Bay d'Espoir - Unit 6	76.5	76.5
Bay d'Espoir - Unit 7	154.4	154.4
Cat Arm - Unit 1	67.0	67.0
Cat Arm - Unit 2	67.0	67.0
Granite Canal	40.0	40.0
Hinds Lake	75.0	75.0
Paradise River	8.0	8.0
Upper Salmon	84.0	84.0
Total Hydro-Owned Hydraulic	954.4	954.4
Hydro-Owned Thermal		
Holyrood Thermal - Unit 1	170.0	0.0
Holyrood Thermal - Unit 2	170.0	0.0
Holyrood Thermal - Unit 3	150.0	0.0
Total Hydro-Owned Thermal	490.0	0.0
Hydro-Owned Standby		
Hardwoods GT	50.0	0.0
Stephenville GT	50.0	0.0
Holyrood GT	123.5	123.5
Holyrood Diesels	8.5	8.5
St. Anthony Diesels	9.7	9.7
Hawkes Bay Diesels	5.0	5.0
Total Hydro-Owned Standby	246.7	146.7
Total Hydro Owned	1691.1	1101.1

	Gross Continuous Unit Rating (MW)	
	2020	Post retirement of Holyrood, Hardwoods, and Stephenville
Hydro Purchases		
Nalcor Exploits - Grand Falls and Bishops Falls	63.0	63.0
Star Lake	18.0	18.0
Corner Brook Pulp and Paper Co-Generation ³	0.0	0.0
Fermeuse Wind	6.0	6.0
St. Lawrence Wind	6.0	6.0
Total Hydro Purchases	93.0	93.0
Total Hydro System Supply	1784.1	1194.1
Newfoundland Power Generation		
Newfoundland Power (Hydro Generation)	71.5	71.5
Newfoundland Power (Standby Generation)	39.0	39.0
Total Newfoundland Power Owned	110.5	110.5
Total Hydro and Newfoundland Power System Supply	1894.6	1304.6
Industrial Customer-Owned		
Deer Lake Power 60 Hz Supply	99.1	99.1
Vale Diesel Generation	7.6	7.6
Total Industrial Customer Owned	106.7	106.7
Total Island Supply	2001.3	1411.3

³ While the Corner Brook Pulp and Paper Co-Generation agreement generally provides 8.0 MW of capacity to the Island Interconnected System, in the event of large amount of load curtailment, the ability to produce capacity by co-generation is reduced.