

1 Q. **Reference: Reliability and Resource Adequacy Study – 2022 Update, October 3, 2022, page 3,**
2 **lines 14-20.**

3 Hydro is recommending continued investment in both the Holyrood TGS and the
4 Hardwoods Gas Turbine to ensure reliable operation in support of the Island
5 Interconnected System in the event of a LIL outage. This will be an interim
6 solution for a “Bridging Period”, during which Hydro will seek to develop long-
7 term sources of supply. The units at Holyrood TGS and the Hardwoods Gas
8 Turbine shall remain available until 2030, or until such time that sufficient
9 alternative generation is commissioned, adequate performance of the LIL is
10 proven, and generation reserves are met. During this period, Hydro will make
11 every effort to minimize the operation of these units.

12 Has Hydro concluded that the LIL will always (i.e. beyond 2030) require either partial or full
13 backup generation to address a bipole outage or are there possible scenarios, such as “adequate
14 performance of the LIL”, that may lead Hydro to conclude that no backup generation is required
15 in the event of a bipole outage? If Hydro has concluded that the LIL will always require some
16 amount of backup generation, what is Hydro’s current estimate of the amount of backup
17 generation required?

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20 A. As changes occur on the system, and as load growth materializes, Newfoundland and Labrador
21 Hydro (“Hydro”) is required to source and construct supply. The location and quantity of that
22 supply will inform and potentially change other assumptions, including how much on Island
23 backup is required for the Labrador-Island Link (“LIL”).

24 As is noted in other responses, there are many changing assumptions on the system, such as
25 potentially large load increases in Labrador that could change the role of the LIL provincially.
26 Hydro continues to propose that it is prudent to incrementally source supply additions to meet
27 reliability criteria as well as load growth. As changes occur and system based assumptions
28 evolve, the exact amount of backup generation will change and will be proposed on a least-cost
29 reliable basis.

1 As stated in the “Reliability and Resource Adequacy Study – 2022 Update,” (“2022 Update”)¹
2 Hydro has proposed a planning reserve margin of 36%, which equates to a requirement for
3 480 MW of additional generation by 2032. To calculate the planning reserve margin, a bipole
4 forced outage rate of 5% was assumed for the LIL. The planning reserve margin is highly
5 dependent on the forced outage rate of the LIL, specifically the bipole forced outage rate, and a
6 lower forced outage rate assumption for the LIL would result in a lower planning reserve margin.
7 However, even if the LIL is more reliable than Hydro’s current assumptions, additional
8 generation to guard against a prolonged loss of the LIL may be required as discussed in the 2022
9 Update.²

¹ "Reliability and Resource Adequacy Study - 2022 Update," Newfoundland and Labrador Hydro, October 3, 2022, vol. I, sec. 5.3.

² "Reliability and Resource Adequacy Study - 2022 Update," Newfoundland and Labrador Hydro, October 3, 2022, vol. III, sec. 5.5.