

1 Q. **Reference: Reliability and Resource Adequacy Study – 2022 Update, Volume III: Long-Term**
2 **Resource Plan, October 3, 2022, page 33, lines 2-5.**

3 Chart 10 includes both the Holyrood TGS and the Hardwoods Gas Turbine in
4 service during the six-week LIL outage. In this scenario, it is estimated that
5 customers can expect an average of 20 hours of unserved energy over a six-
6 week period, with the highest anticipated shortfall estimated to be 150 MW.

7 a) For the six week scenario described above, please describe the extent to which capacity
8 (MW) and energy (GWh) from the Holyrood Gas Turbine and Hardwoods Gas Turbine will be
9 relied upon.

10 b) Please estimate the volume of fuel required to supply the Holyrood Gas Turbine and
11 Hardwoods Gas Turbine for the six week scenario described above. Furthermore, please
12 comment on any factors, including storage and supply of fuel, that may limit Hydro’s ability
13 to operate these gas turbines.

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16 A. a) The full capacity of the Holyrood and Hardwoods Gas Turbines, totaling 173 MW, would be
17 relied upon in some hours during the six-week Labrador-Island Link (“LIL”) outage scenario
18 described in the “Reliability and Resource Adequacy Study – 2022 Update” (“2022
19 Update”).¹

20 Combined, both generators would be relied upon for 12.9 GWh of energy over the six-week
21 period. The Reliability Model, which was used to analyze the six-week LIL outage, does not
22 fully incorporate the operational characteristics of the units. For example, the model would
23 optimize the Holyrood and Hardwoods Gas Turbines on an hourly basis when in reality these
24 units would likely be cycled less frequently. It is important to note that this is an average
25 result and due to system conditions and the operational characteristics of the units, the
26 actual generation may be higher or lower than indicated in these results.

¹ "Reliability and Resource Adequacy Study - 2022 Update," Newfoundland and Labrador Hydro, October 3, 2022, vol. III, p. 33/2–5.

- 1 **b)** The amount of fuel required to supply both the Holyrood and Hardwoods Gas Turbines in
2 the scenario described in the 2022 Update² would be, at minimum, approximately
3 4.2 million litres. This would be significantly lower than the combined storage capacity of
4 the tanks; as such, it is not expected that fuel supply or storage would be a limiting factor in
5 this scenario.

² Ibid.