

1 Q. **Reference: Reliability and Resource Adequacy Study 2022 Update, Volume III, page 55, lines 3-**  
2 **4.**

3 Explain what specific efforts remain in determining the viability of extending the life of the  
4 Holyrood and Hardwoods generating plants and describe the action taken to date.

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7 A. Considerations relating to the viability of extending the life of the Holyrood Thermal Generating  
8 Station (“Holyrood TGS”) and the Hardwoods Gas Turbine are summarized herein.

9 **Holyrood TGS**

10 In 2021, Hydro engaged Hatch Ltd (“Hatch”) to carry out a condition assessment of the Holyrood  
11 TGS assets, to assess the viability of extending the life of the Holyrood TGS, and to assess the  
12 viability of the plant as a backup generating source (“HTGS Condition Assessment and Life  
13 Extension Study”).<sup>1</sup> Through its assessment, Hatch determined that the Holyrood TGS remains  
14 viable in its current capacity until at least 2030; extension beyond 2030 would require further  
15 assessment to assess the condition of the assets at that time. In consideration of Hatch’s  
16 findings and in addition to Hydro’s experience operating the Holyrood TGS, Hydro has  
17 recommended that the Holyrood TGS remain in operation until 2030 or until it is displaced by  
18 alternative generating sources. Hydro does not plan to undertake additional assessment into the  
19 viability of life extension of the Holyrood TGS at this time.

20 **Hardwoods Gas Turbine**

21 The viability of the Hardwoods Gas Turbine is predicated on three principles including: 1) the  
22 availability of spare components, 2) the performance of the unit, and 3) the condition of the  
23 unit.

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<sup>1</sup> The “HTGS Condition Assessment and Life Extension Study,” Hatch Ltd, March 30, 2022—including the Executive Summary, Volume I, and Volume II—were filed as attachments to the “Reliability and Resource Adequacy Study Review - Assessment to Determine the Potential Long-Term Viability of the Holyrood Thermal Generating Station,” Newfoundland and Labrador Hydro, March 31, 2022.

1           With respect to spare components, the Hardwoods Gas Turbine is no longer supported by the  
2           original equipment manufacturer (“OEM”). To enable reliable operation of the Hardwoods Gas  
3           Turbine to 2030, Hydro intends to utilize components made available by the retirement of the  
4           Stephenville Gas Turbine. Hydro has also engaged in preliminary discussions with a third-party  
5           vendor that has acquired the intellectual property from the OEM to be able to manufacture  
6           replacement turbine components.

7           In terms of performance, Hydro monitors the reliability of its gas turbine assets, as reported to  
8           the Board of Commissioners of Public Utilities in its Quarterly Report on Performance of  
9           Generating Units. In 2018, Hydro disabled the governor response of the Hardwoods Gas Turbine  
10          due to deviations in system frequency. This change has reduced strain on the unit and has  
11          resulted in an improvement in reliability statistics.

12          Hydro will continue to monitor the condition of the Hardwoods Gas Turbine and will continue to  
13          apply its asset management practices to ensure reliability and long-term availability.