

1 Q. **Reference: Application, Schedule 3, pages 5–6**

2 Hydro states that “Hydro’s 2027 CBA and this schedule assumes a transition to post-steam on  
3 March 31, 2030,” and that Hydro “has revised its base and sensitivity forced outage rate  
4 assumptions from 15% and 20% to 20% and 34%, respectively.”

5 a) For each Holyrood unit, please provide the remaining economic life, in months, used to  
6 justify 2027 expenditures; the base and sensitivity forced-outage inputs, periods, and  
7 source; and each steam-related expenditure avoidable if steam operation ends after  
8 the winter of 2027/28.

9 b) Please file the Holyrood TGS Capital Plan Refresh filed March 7, 2025 and the March  
10 31, 2022 long-term viability assessment, to the extent they support the remaining-life  
11 and forced-outage assumptions used in this Application.

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14 A. a) The retirement date of the Holyrood Thermal Generating Station (“Holyrood TGS”) is  
15 wholly contingent on the integration of new generation on the Island Interconnected  
16 System. As noted in this Request for Information, the Board of Commissioners of Public  
17 Utilities (“Board”) has not yet approved Newfoundland and Labrador Hydro’s (“Hydro”) proposals for new generation. As such, Hydro is unable to provide an updated retirement  
18 date or determine at this time whether continued operation beyond 2030 will be required.  
19 Hydro will continue to assess system reliability requirements through its ongoing planning  
20 processes, including its Near-Term Reliability Report expected in the fourth quarter of 2026  
21 and its next Reliability and Resource Adequacy Study Update in 2027. Those assessments  
22 will inform Hydro's evaluation of future generation requirements and the role of existing  
23 thermal generation resources. Given the uncertainty regarding whether continued  
24 operation will be required, the duration of any such operation, and the resulting asset  
25 requirements, Hydro cannot reasonably determine the impact on associated capital  
26 expenditures at this time.  
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1 The Holyrood TGS is an aging thermal facility with increasingly unpredictable performance.  
2 The advanced age of the asset introduces a heightened risk of failure and increased costs  
3 associated with maintaining its operation. Over the last five years, as a result of annual  
4 reliability analysis to inform Hydro's near-term reliability analysis, Hydro has revised its  
5 base and sensitivity forced outage rate assumptions from 15% and 20% to 20% and 34%,  
6 respectively, indicating a trend of worsening reliability. Hydro anticipates this trend will  
7 continue as the asset continues to age and operate beyond its intended design life,  
8 consistent with the "Bathtub Curve" model of equipment failure, which predicts higher and  
9 accelerating rates of failure at or near the end of an asset's useful life, despite continued  
10 capital investment.<sup>1</sup> As reported in Hydro's Quarterly Reports on Asset Performance in  
11 Support of Resource Adequacy ("Rolling 12 Report"),<sup>2</sup> the DAFOR<sup>3</sup> statistics for Holyrood  
12 TGS for all thermal units (weighted DAFOR) and DAFOR by individual unit for the past five-  
13 years is shown in Table 1.

**Table 1: Thermal Weighted DAFOR**

| Generating Unit                         | Maximum<br>Continuous<br>Unit Rating<br>(MW) | 12<br>months<br>Ended<br>Mar 2026<br>(%) | 12<br>months<br>Ended<br>Mar 2025<br>(%) | 12<br>months<br>Ended<br>Mar 2024<br>(%) | 12<br>months<br>Ended<br>Mar 2023<br>(%) | 12<br>months<br>Ended<br>Mar 2022<br>(%) | Five-<br>year<br>Average<br>(%) | Near-Term<br>Planning and<br>Resource<br>Planning<br>Analysis Value<br>(%) |
|-----------------------------------------|----------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|---------------------------------|----------------------------------------------------------------------------|
| <b>All Thermal Units –<br/>Weighted</b> | <b>490</b>                                   | <b>27.76</b>                             | <b>31.92</b>                             | <b>43.07</b>                             | <b>12.67</b>                             | <b>33.84</b>                             | <b>29.85</b>                    | <b>20.00</b>                                                               |
| <b>Thermal Units</b>                    |                                              |                                          |                                          |                                          |                                          |                                          |                                 |                                                                            |
| Holyrood TGS Unit 1                     | 170                                          | 20.27                                    | 77.01                                    | 9.05                                     | 23.78                                    | 33.40                                    | 32.70                           | 20.00                                                                      |
| Holyrood TGS Unit 2                     | 170                                          | 14.34                                    | 22.77                                    | 84.22                                    | 0.67                                     | 31.67                                    | 30.73                           | 20.00                                                                      |
| Holyrood TGS Unit 3                     | 150                                          | 72.84                                    | 3.41                                     | 23.22                                    | 17.35                                    | 37.15                                    | 30.79                           | 20.00                                                                      |

14 Hydro has stated that all three units would remain available through the Bridging Period,  
15 should they be required to mitigate against the potential for a Labrador-Island Link ("LIL")  
16 bipole outage and to ensure that system reliability remains within the acceptable limits of

<sup>1</sup> "2024 Resource Adequacy Plan – An Update to the Reliability and Resource Adequacy Study," Newfoundland and Labrador Hydro, rev. August 26, 2024 (originally filed July 9, 2024), 2024 Resource Plan Overview, p. 16.

<sup>2</sup> Hydro's quarterly Rolling 12 Reports can be accessed at <http://www.pub.nf.ca/indexreportspages/12MonthRollingAverage.php>.

<sup>3</sup> Derated Adjusted Forced Outage Rate.

1 planning criteria.<sup>4</sup> As a result, Hydro has not provided costs reflecting the retirement of units  
2 prior to 2030.

3 Please refer to the studies provided in part b of this response for further discussion of  
4 specific asset reliability and remaining life considerations.

5 **b)** The Life Extension Condition Assessments (“LECA”) studies performed by Hatch Ltd.  
6 (“Hatch”) are available on the Board website at the following links:

- 7 • 2021 LECA: [Assessment to Determine the Potential Long-Term Viability of the](#)  
8 [Holyrood Thermal Generating Station \(March 31, 2022\)](#); and
- 9 • 2024 LECA Refresh: [Holyrood Thermal Generating Station Capital Plan Refresh](#)  
10 [\(March 7, 2025\)](#).

11 Hatch’s plans inform Hydro’s capital expenditures outlook as discussed in Schedule 3, Section  
12 6.0 of the application.

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<sup>4</sup> Please refer to Hydro’s response to CA-NLH-007 of 2025 Build Application proceeding.