

1 Q. **Reference: Volume I, Section 6.2.2; Schedule F 4.3; Exhibit 4; Exhibit 14, note 2; Responses to**
2 **PUB-NLH-101; PUB-NLH-102(a) and (b); PUB-NLH-037(b); CA-NLH-159(a) and (f); IIC-NLH-**
3 **022(a); IIC-NLH-016**

4 The method for determining capacity factor appears to be inconsistent on the record:

- 5 • PUB-NLH-102(a) states the capacity factor formula as forecast net production divided by
6 the product of net capacity and hours in a year and computes 455,225,658 kWh divided
7 by the product of 466,000 kW and 8,760 hours, or 11.16 percent.
- 8 • Exhibit 14, footnote 2 describes the method as dividing net production by the product of
9 capacity and hours in service. The unit commitment schedule at PUB-NLH-037(b),
10 commits Holyrood TGS units on 167 days of the Test Year which, computed on hours in
11 service, results in a capacity factor of approximately 24.4 percent on a plant basis and
12 approximately 47.5 to 49.7 percent on a committed unit-capacity basis.
- 13 a) Confirm or correct each of the two computations described above, showing the
14 arithmetic.
- 15 b) Explain what “hours in service” means for this purpose.
- 16 c) Confirm that minimum stable output is 70 MW per unit and 50 MW per unit from March
17 15, as implied in the 817.2 GWh figure at CA-NLH-159(c).
- 18 d) Provide the Test Year forecast of hours committed, hours synchronized, and hours at or
19 above minimum stable output, by unit.
- 20 e) Reconcile the description of the method at Exhibit 14, footnote 2 with the calculation
21 performed at Schedule F 4.3 and stated at PUB-NLH-102(a), and state which of the two
22 Hydro regards as the method in use.
- 23 f) Confirm that the 2019 Test Year capacity factor of 15.74 percent reported at PUB-NLH-
24 102(a), Table 1 was computed on an 8,760-hour denominator and provide the 2019 Test
25 Year net production and net capacity.
- 26 g) Reconcile the net capacity of 466 MW used in the capacity factor calculation with the
27 firm capacity of 490 MW in three units reported at Exhibit 4.

A. a) The formula that Newfoundland and Labrador Hydro (“Hydro”) has consistently used for Cost of Service purposes is correct as stated in Hydro’s response to part a) of PUB-NLH-102 of this proceeding. Exhibit 14 of Hydro’s 2026 General Rate Application should have more appropriately reflected the formula as stated in Hydro’s response to part a) of PUB-NLH-102, but it does not change the content.

Hydro’s calculation of the capacity factor of 11.16% is provided in Hydro’s response to PUB-NLH 102. Based on the formula in Exhibit 14 the calculation would be:

$$455,225,658 \text{ kWh} / (466 \text{ MW} \times 1000 \times 167 \times 24) = 24.4\%$$

b) Hydro’s understanding is that it refers to the hours the unit was in operation.

c) The minimum stable level for January through March 14, and October 16 through December 31, is 70 MW. The minimum stable level for March 15 through March 31 is 50 MW.

d) The hours requested are provided in Table 1.

**Table 1: Holyrood Thermal Generating Station
Hours by Unit in 2027 Test Year**

	Unit 1	Unit 2	Unit 3
Hours Committed	4,008	2,160	-
Hours Synchronized	4,008	2,160	-
Hours at Minimum	3,767	2,018	-
Hours Above Minimum ¹	241	142	-

e) Hydro regards the calculation performed at Schedule F 4.3 and stated at part a) of PUB-NLH-102 as the method in use.

¹ Due to the Labrador-Island Link being limited to 700 MW, as well as the stochastic nature of the analysis, hours when the Holyrood Thermal Generating Station is above minimum is predominately due to instances of supply constraints elsewhere on the system.

- 1 **f)** It is confirmed. The 2019 Test Year net production was 641,731,000 kWh and a net capacity
2 of 465.5 MW.
- 3 **g)** The 490 MW is the nameplate capacity of the three units, compared to the 466 MW, which
4 is the net power that can be delivered to the system after subtracting station services.