

1 Q. **Reference: Requests for Information IIC-NLH-025 and CA-NLH-156.**

2 a) Please provide the normal energy production by source (Island hydraulic, LIL, turbines,
3 Holyrood, Exploits purchases, wind purchases, imports, etc.) for the 7,417 GW/h under
4 (1) average flow conditions (including the anticipated dispatch of Holyrood for capacity
5 reasons), and (2) severe drought conditions. Please assume normal unit available, and
6 not the specific 2027 constraints related to BDE or other capital works.

7 b) Under severe drought conditions, does the dispatch of Holyrood for capacity reasons
8 increase (due to lower capacity available from hydraulic plants or other)? If so, what is
9 the added energy that is generated from Holyrood due to this increase in capacity-
10 related dispatch.

11 c) If the Island hydraulic dispatch under firm drought flows is not approximately 3,961
12 GW/h, please indicate the reason for this change in value since the 2017 GRA, Exhibit 1,
13 Schedule III.

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16 A. a) Table 1 shows the production under the 2026 General Rate Application ("GRA") hydraulic
17 conditions and the firm energy conditions published in the 2024 Resource Adequacy Plan
18 ("RAP"), under typical system maintenance.

Table 1: Production Breakdown¹

	2026 GRA Hydrology	2024 RAP Firm ²
Hydraulic Production	4,600.0	3,602.0
LIL ³	1,299.6	2,152.4
Gas Turbine/Diesels Production	29.3	36.1
Holyrood Production	453.0	735.1
Star Lake	141.1	87.0
Rattle Brook	13.8	13.8
CBPP ⁴ Co-Generation	66.5	52.0
St. Lawrence Wind	99.4	92.0
Fermeuse Wind	96.3	75.4
Exploits	614.9	547.0
New World Dairy	2.8	2.8
Total	7,417	7,396

1 The firm energy analysis is a calculation that is completed for long-term resource planning
2 to assess the capability of the system to meet firm energy requirements under adverse
3 hydrological conditions. It is done to ensure that the Island and Labrador Interconnected
4 Systems have sufficient generating capability to supply all its firm energy requirements with
5 firm system capability. The firm energy capability of Island hydroelectric resources is defined
6 as the firm energy capability of those resources under the most adverse three-year
7 sequence of reservoir inflows occurring within the historical record. This is considered the
8 critical dry sequence, and it occurred between 1959 and 1962. From a long-term planning
9 perspective, it is important to assess this for a hydro-dominant system. Because it is a long-
10 term system planning criteria, Newfoundland and Labrador Hydro's ("Hydro") only
11 completes this calculation for the *Reliability and Resource Adequacy Study Review*
12 proceeding.

13 The production plan for the GRA is based on average inflow conditions and normal system
14 conditions—not critical dry sequences. The operational plan for Holyrood in the 2027 Test

¹ The total generation of these assets is lower in the firm energy scenario due to reduced losses and reduced customer generation.

² These numbers were based on assumptions consistent with the GRA, including an extension of Rattle Brook and New World Dairy.

³ Labrador-Island Link ("LIL").

⁴ Corner Brook Pulp and Paper Limited ("CBPP").

1 Year is based on average inflows and balancing cost versus reliability as a backup for the LIL,
2 not on three-year critical drought periods.

3 **b)** Monthly minimum storage limits are developed annually to provide guidance in the reliable
4 operation of Hydro's major reservoirs—Victoria, Meelpaeg, Long Pond, Cat Arm, and Hinds
5 Lake. The minimum storage limit is designed to indicate the minimum level of aggregate
6 storage required such that if there was a repeat of Hydro's critical dry sequence,⁵ or other
7 less severe sequence, Hydro's load can still be met through the use of the available
8 hydraulic storage supplemented with maximized deliveries of power from the Muskrat Falls
9 Generating Station over the LIL. In other words, staying above these limits protects reservoir
10 storage such that the hydro units on the major reservoirs can operate at full rated output
11 through the winter period and should not be derated due to insufficient reservoir storage.
12 Other dry periods are also considered during this analysis to ensure that no other shorter-
13 term historic dry sequence could result in insufficient storage, resulting in a derate.
14 Therefore, the dispatch of Holyrood Thermal Generating Station does not increase for
15 capacity reasons as a result of severe drought conditions, as the annual development of the
16 monthly minimum storage limits protects the hydro units from deration under such
17 circumstances.

18 **c)** The 3,961 GWh figure in the referenced 2017 GRA schedule was updated in the 2024 RAP as
19 shown in Table 1 of Hydro's response to part a) of IIC-NLH-032 of this proceeding. These
20 numbers may change over time as additional hydrology years, or changes to methodology,
21 are considered when assessing long-term firm energy requirements for the Island
22 Interconnected System. As noted above, that figure was the firm annual energy calculated
23 at that time. In the same table referenced in the question, Hydro lists the Average Annual
24 Energy as 4,600 GWh. This figure continues to be utilized as the forecast Average Annual
25 Energy in the 2027 Test Year,⁶ and was confirmed by Hatch Ltd. ("Hatch") in its 2023
26 Hydrology Review.⁷

⁵ Hydro's long-term critical dry sequence is defined as January 1959 to March 1962.

⁶ "2026 General Rate Application," Newfoundland and Labrador Hydro, May 27, 2026, vol. I, sch. A-V.

⁷ "2026 General Rate Application," Newfoundland and Labrador Hydro, May 27, 2026, vol. II, exh. 5, sec. 12. Hydro notes that the Hatch report referenced in section 3.1 is the previous Island Hydrology Review in 2003, in which a key recommendation was to utilize the same estimate of average annual energy from hydroelectric resources for operations, planning, and rate setting.