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August 18, 2025

The Board of Commissioners of Public Utilities Prince Charles Building 120 Torbay Road, P.O. Box 21040 St. John's, NL A1A 5B2

Attention: Jo-Anne Galarneau

Executive Director and Board Secretary

Re: Monthly Energy Supply Report for the Island Interconnected System for July 2025

Enclosed please find Newfoundland and Labrador Hydro's Monthly Energy Supply Report for the Island Interconnected System as directed by the Board of Commissioners of Public Utilities.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO

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Encl.

ecc:

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Monthly Energy Supply Report for the Island Interconnected System for July 2025

August 18, 2025

A report to the Board of Commissioners of Public Utilities



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1.0 Introduction

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- 2 On February 8, 2016, the Board of Commissioners of Public Utilities ("Board") requested Newfoundland
- 3 and Labrador Hydro ("Hydro") file a biweekly report containing, but not limited to, the following:
- 4 1) System Hydrology Report;
- 2) The thermal plant operated in support of hydrology; 5
- 6 3) Production by plant/unit; and
- 7 4) Details of any current or anticipated long-term derating.
- 8 In July 2016, the Board indicated that a monthly report would thereafter be sufficient. This report
- 9 provides data for July 2025.
- 10 Ownership of the Water Management function resides within Hydro in the Resource and Production
- 11 Planning department, and is at all times guided by Hydro's operating instructions and environmental
- standards. This group works in consultation with Energy Marketing to optimize the use of Hydro's 12
- 13 hydrologic resources through import/exports and to ensure that the security of supply for domestic load
- for Hydro's customers remains paramount in all decisions, ensuring the delivery of least-cost, reliable 14
- service in an environmentally responsible manner. 15

2.0 System Hydrology 16

- Reservoir inflows in July 2025 were 67% below the month's historical average. Table 1 summarizes the 17
- 18 aggregate storage position of Hydro's reservoirs at the end of the reporting period.

Table 1: System Hydrology Storage Levels

Date	2025 (GWh)	2024 (GWh)	20-Year Average (GWh)	Minimum Storage Limit (GWh)	Maximum Operating Level (GWh)	Maximum Operating Level (%)
31-July-2025	1,622	2,088	2,039	1,400	2,521	64

¹ Calculated in terms of energy [gigawatt hour ("GWh")].



- 1 The aggregate reservoir storage level on July 31, 2025 was 1,622 GWh, which is 36% below the seasonal
- 2 maximum operating level and 16% above the minimum storage limit.² Total system energy for the
- 3 month decreased by 255 GWh overall, resulting in a total system energy storage 417 GWh below the 20-
- 4 year average. Inflows to the reservoirs of the Bay d'Espoir Hydroelectric Generating Station ("Bay
- d'Espoir") were 24% of average in July 2025. Inflows to the Hinds Lake Reservoir were 52% of average
- 6 and inflows to the Cat Arm Reservoir were 61% of average during the month.
- 7 There were two rainfall events which impacted the Bay d'Espoir system in July 2025. The first of these
- 8 occurred on July 21 and 22, 2025 when 37 mm of rain was recorded at Burnt Dam along with 59 mm of
- 9 rain at Long Pond. A second rainfall event occurred on July 25 and 26, 2025 when 40 mm of rain was
- 10 recorded at Burnt Dam as well as 15 mm at Long Pond. Outside of these periods, conditions continued
- to be dry with low inflows compared to the historical average.
- 12 Table 2 summarizes the unit outages experienced during July 2025.

Table 2: July 2025 Unit Outage Summary

Unit Name	Date offline	Return to Service	Outage type	Notes
Bay d'Espoir Unit 1	March 31	Ongoing	Planned outage	n/a
Bay d'Espoir Unit 2	March 31	Ongoing	Planned outage	n/a
Granite Canal	June 15	August 1	Planned outage	A forced extension to this planned outage extended the outage past the original scheduled return to service date of July 25 to August 1.
Paradise River	July 3	July 3	Planned outage	n/a
Bay d'Espoir Unit 3	July 8	July 11	Planned Outage	n/a
Cat Arm Unit 2	July 21	Ongoing	Planned Outage	n/a
Cat Arm Unit 1	July 22	July 23	Planned Outage	A forced extension to this planned outage extended the outage into July 23.
Cat Arm Unit 1	July 24	Ongoing	Planned Outage	n/a

² Minimum storage limits are developed annually to provide guidance in the reliable operation of Hydro's major reservoirs—Victoria, Meelpaeg, Long Pond, Cat Arm, and Hinds Lake. The minimum storage limit is designed to indicate the minimum level of aggregate storage required such that if there was a repeat of Hydro's critical dry sequence, or other less severe sequence, Hydro's load can still be met through the use of the available hydraulic storage supplemented with maximized deliveries of power from the Muskrat Falls Hydroelectric Generating Facility ("Muskrat Falls") over the Labrador-Island Link ("LIL"). Hydro's long-term critical dry sequence is defined as January 1959 to March 1962 (39 months). Other dry periods are also considered during this analysis to ensure that no other shorter-term historic dry sequence could result in insufficient storage.



- 1 Figure 1 plots the 2024 and 2025 storage levels, minimum storage limits, maximum operating level
- 2 storage, and 20-year average aggregate storage for comparison. In addition to the 2024–2025 limits
- 3 presented in Figure 1, Hydro has established the minimum storage limits to April 30, 2026. The 2025–
- 4 2026 limits were developed considering maximized delivery of power from the Muskrat Falls,
- 5 supplemented by available Recapture Energy from the Churchill Falls Generating Station over the LIL,
- 6 utilizing the transmission limits associated with the >58.0 Hz under-frequency load shedding scheme.³

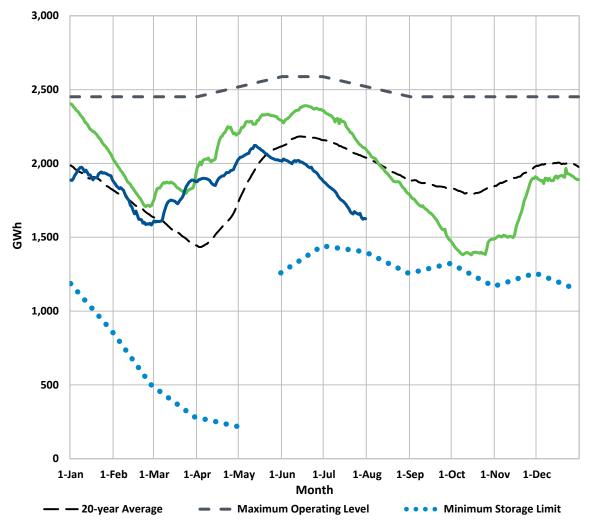


Figure 1: Total System Energy Storage⁴

⁴ Data points in Figure 1 represent storage at the beginning of each day. Table 1 reports the end-of-day storage values, which results in a small difference between the storage data presented in Table 1 and Figure 1.



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³ The minimum storage methodology was updated to ensure Hydro's reservoirs could continue to provide reliable service to customers at the lowest possible cost, in an environmentally responsible manner. The 2025–2026 analysis assumed that only two units at the Holyrood Thermal Generating Station ("Holyrood TGS") would be online and operating at minimum load during the winter 2025–2026 period. Hydro plans to have all three units at the Holyrood TGS available at full capability, if needed. However, Hydro expects Island reservoirs to be supported with Muskrat Falls energy instead of thermal energy from the Holyrood TGS.

2.1 **Ponding** 1

- In Board Order No. P.U. 49(2018), the Board approved Hydro's application for approval of a Pilot 2
- Agreement for the Optimization of Hydraulic Resources ("Pilot Agreement").5 The intent of the Pilot 3
- 4 Agreement is to optimize Hydro's hydraulic resources through the strategic use of its storage
- 5 capabilities, taking advantage of the variability of energy pricing in external markets over time.
- 6 Appendix A provides information regarding imported and exported energy transactions under the Pilot
- 7 Agreement during the month. Ponding exports occurred over the Maritime Link during July 2025, and
- 8 these are summarized in Appendix A.

2.2 **Spill Activity** 9

- 10 Appendix A provides information regarding spill avoidance export transactions undertaken. 6 No releases
- 11 of water were required at any locations on the Island Interconnected System in July 2025, and no spill
- 12 avoidance exports were required during the month. A summary of the year-to-date ("YTD") total
- volumes spilled or bypassed in both MCM⁷ and GWh can be found in Table 3. 13

Table 3: Spill Activity

	Granite Canal Bypass		Upper Salmon Bypass		Burnt Dam Spillway	
	MCM	GWh	MCM	GWh	MCM	GWh
31-July-2025	0.0	0.0	0.0	0.0	0.0	0.0
YTD Total	22.8	2.2	0.0	0.0	0.0	0.0

3.0 Production and Purchases

- Appendix B provides a breakdown of power purchases, including the import and export activity over the 15
- 16 LIL and Maritime Link and production by plant during July 2025. There was no energy repaid from CBPP⁸
- 17 to Energy Marketing under the Temporary Energy Exchange Agreement in July 2025. There was no
- 18 emergency energy supplied to Nova Scotia over the Maritime Link during July 2025.

⁸ Corner Brook Pulp and Paper Limited ("CBPP").



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⁵ The Third Amended and Restated Pilot Agreement for the Optimization of Hydraulic Resources was approved as per Board Order No. P.U. 35(2022), and was extended as per Board Order No. P.U. 30(2023), and again in Board Order No. P.U. 29(2024).

⁶ Pursuant to the Pilot Agreement, exporting when system load is low allows for increased generation from Island hydraulic facilities and the utilization of water (energy) that would have otherwise been spilled, while not increasing the risk of spill elsewhere in the system.

⁷ Million cubic metres ("MCM").

4.0 Thermal Production

- 2 No Holyrood TGS units were online for system requirements in July 2025. There was no energy
- 3 production from the Holyrood TGS during the month. Standby generation was not used to support
- 4 reservoir storage. The operating hours for the Holyrood TGS, Holyrood Combustion Turbine ("CT"), and
- 5 the Hardwoods and Stephenville Gas Turbines ("GT") are summarized in Table 4.

Table 4: Holyrood TGS and Combustion Turbines Operating Hours

		Synch	
	Operating	Condense	Available
	Hours	Hours	Hours
Holyrood TGS			
Unit 1	0	0	0
Unit 2	0	0	0
Unit 3	0	0	0
Combustion Turbines			
Hardwoods GT	0	0	0
Stephenville GT	1.0	0	724.5
Holyrood CT	0	0	744

5.0 Unit Deratings

- 7 All three Holyrood TGS units were on planned annual outages for the entire month of July 2025.
- 8 The Hardwoods GT was unavailable for the entire month of July 2025 on a planned outage to complete a
- 9 tank inspection and associated repairs, instrumentation upgrades, as well as preventative maintenance
- and corrective maintenance activities. The unit is expected to return to service on August 20, 2025.
- 11 The Holyrood CT was available for the full month of July 2025.
- 12 The Stephenville GT was available for the full month of July 2025, except for planned 50% deratings
- from July 9 to July 11, 2025 to complete borescope inspections of the gas generators.



Appendix A

Ponding and Spill Transactions



Table A-1: Ponding Transactions

Date	Ponding Imports (MWh)	Ponding Exports (MWh)	Ponding Imports Purchased by Hydro (MWh)	Transfer of Pond Balance to Spill Avoidance (MWh)	Energy Losses to Export (MWh)	Cumulative Ponded Energy (MWh)
Opening Balance						(4,903)
16-Jul-2025		(67)			(6)	(4,976)
23-Jul-2025		(110)			(11)	(5,097)
31-Jul-2025						(5,097)
Total ¹	-	(177)	-	-	(17)	

Table A-2: Avoided Spill Energy

			Transfer of	
	Avoided	Energy	Pond Balance	YTD
	Spill	Losses	to Spill	Avoided
	Exports	to Export	Avoidance	Spill Energy
Date	(MWh)	(MWh)	(MWh)	(MWh)
Opening Balance	-	-	-	-
Total ²	-	-	-	-

² Total transactions for July 2025.



 $^{^{\}rm 1}\,\text{Total}$ transactions for July 2025.

Appendix B

Production and Purchases



Table B-1: Generation and Purchases (GWh)^{1,2}

	Jul-25	YTD Jul 2025
Hydro Generation (Hydro)		
Bay d'Espoir		
Unit 1	0.0	121.6
Unit 2 Unit 3	0.0 35.6	110.0 215.4
Unit 4	21.8	132.6
Unit 5	19.8	157.6
Unit 6	34.0	219.2
Unit 7	90.2	587.0
Subtotal Bay d'Espoir	201.4	1,543.3
Upper Salmon	40.8	346.6
Granite Canal	0.5	113.8
Hinds Lake	23.1	221.5
Cat Arm Unit 1	21.7	261.3
Unit 2	20.3	262.2
Subtotal Cat Arm	42.1	523.5
Paradise River	0.3	17.0
Star Lake	9.3	79.9
Rattle Brook	0.0	8.4
Exploits	45.6	352.3
Mini Hydro	0.0	0.0
Total Hydro Generation (Hydro)	363.2	3,206.2
Thermal Generation (Hydro)		
Holyrood TGS		
Unit 1	0.0	107.4
Unit 2 Unit 3	0.0 0.0	198.3 138.4
Subtotal Holyrood TGS Units	0.0	444.1
Holyrood Combustion Turbine and Diesels	0.0	4.2
Hardwoods Gas Turbine	0.0	1.1
Stephenville Gas Turbine	0.0	0.9
Other Thermal	0.0	0.2
Total Thermal Generation (Hydro)	0.0	450.6
Purchases Requested Newfoundland Power and Vale	0.0	0.1
CBPP	3.0	5.1
Capacity Assistance	0.0	0.0
Power Purchase Agreement	0.0	34.4
Secondary Co-Generation	0.1	0.5
	2.8	28.0
Subtotal CBPP	2.9	62.9
Wind Purchases	12.5	112.2
Maritime Link Imports ³	0.0	0.0
New World Dairy	0.1	1.0
Labrador Island Link Delivery to IIS ^{4,5}	37.5	549.7
Total Purchases	53.1	726.0
Total	416.3	4,382.8

⁵ Net energy delivered to the Island Interconnected System is less than the total energy delivery to Hydro under the Muskrat Falls Power Purchase Agreement because of transmission losses on the LIL.



¹ Gross generation.

² Actuals reflect rounded values to the nearest tenth of a GWh. Differences between total versus addition of individual components due to rounding.

³ Includes energy flows as a result of purchases and inadvertent energy.

⁴LIL deliveries to the Island Interconnected System are calculated as LIL imports of 243.4 GWh less Maritime Link exports of