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June 17, 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 May 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

Shirley A. Walsh
Senior Legal Counsel, Regulatory
SAW/mc

Encl.

ecc:

Board of Commissioners of Public Utilities
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Monthly Energy Supply Report for the Island Interconnected System for May 2025

June 17, 2025

A report to the Board of Commissioners of Public Utilities

newfoundland labrador hydro

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1.0 Introduction

On February 8, 2016, the Board of Commissioners of Public Utilities ("Board") requested Newfoundland and Labrador Hydro ("Hydro") file a biweekly report containing, but not limited to, the following:

1) System Hydrology Report;

2) The thermal plant operated in support of hydrology;

3) Production by plant/unit; and

4) Details of any current or anticipated long-term derating.

In July 2016, the Board indicated that a monthly report would thereafter be sufficient. This report provides data for May 2025.

Ownership of the Water Management function resides within Hydro in the Resource and Production 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 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 service in an environmentally responsible manner.

2.0 System Hydrology

Reservoir inflows in May 2025 were 55% below the month's historical average.[1] Table 1 summarizes the 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-May-2025	2,014	2,287	2,114	1,259	2,586	78

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

The aggregate reservoir storage level on May 31, 2025 was 2,014 GWh, which is 22% below the seasonal maximum operating level and 60% above the minimum storage limit.[2] Total system energy for the month decreased by 20 GWh overall, resulting in a total system energy storage 100 GWh below the 20-year average. Inflows to the reservoirs of the Bay d'Espoir system were 25% of average in May 2025. Inflows to the Hinds Lake Reservoir were 39% of average and inflows to the Cat Arm Reservoir were 99% of average during the month.

Much of the snow in the Hinds Lake watershed had melted throughout April 2025 and so, Hinds Lake had little snow remaining at the start of May which melted within the first two weeks of May. Very little snowmelt had occurred at Cat Arm prior to the beginning of May and as such, Cat Arm began the month with much of the snowpack from the winter remaining in the watershed. By the end of the month, there were only small amounts of snow visible in Cat Arm via satellite imagery. The difference in the timing of the Spring freshet at these locations accounts for the significant difference in average inflow when compared with that of the Bay d'Espoir System where the majority of snowmelt occurred in March 2025.

Table 2 summarizes the unit outages experienced during May 2025.

Table 2: **May 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
Paradise River	May 5	May 6	Forced outage	Incomplete start sequence
Bay d'Espoir Unit 3	May 27	Ongoing	Planned outage	n/a
Bay d'Espoir Unit 4	May 27	Ongoing	Planned outage	n/a
Bay d'Espoir Unit 5	May 31	June 1	Planned outage	Overnight outage only
Bay d'Espoir Unit 6	May 31	June 1	Planned derating	Overnight derate only

[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.

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

[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.

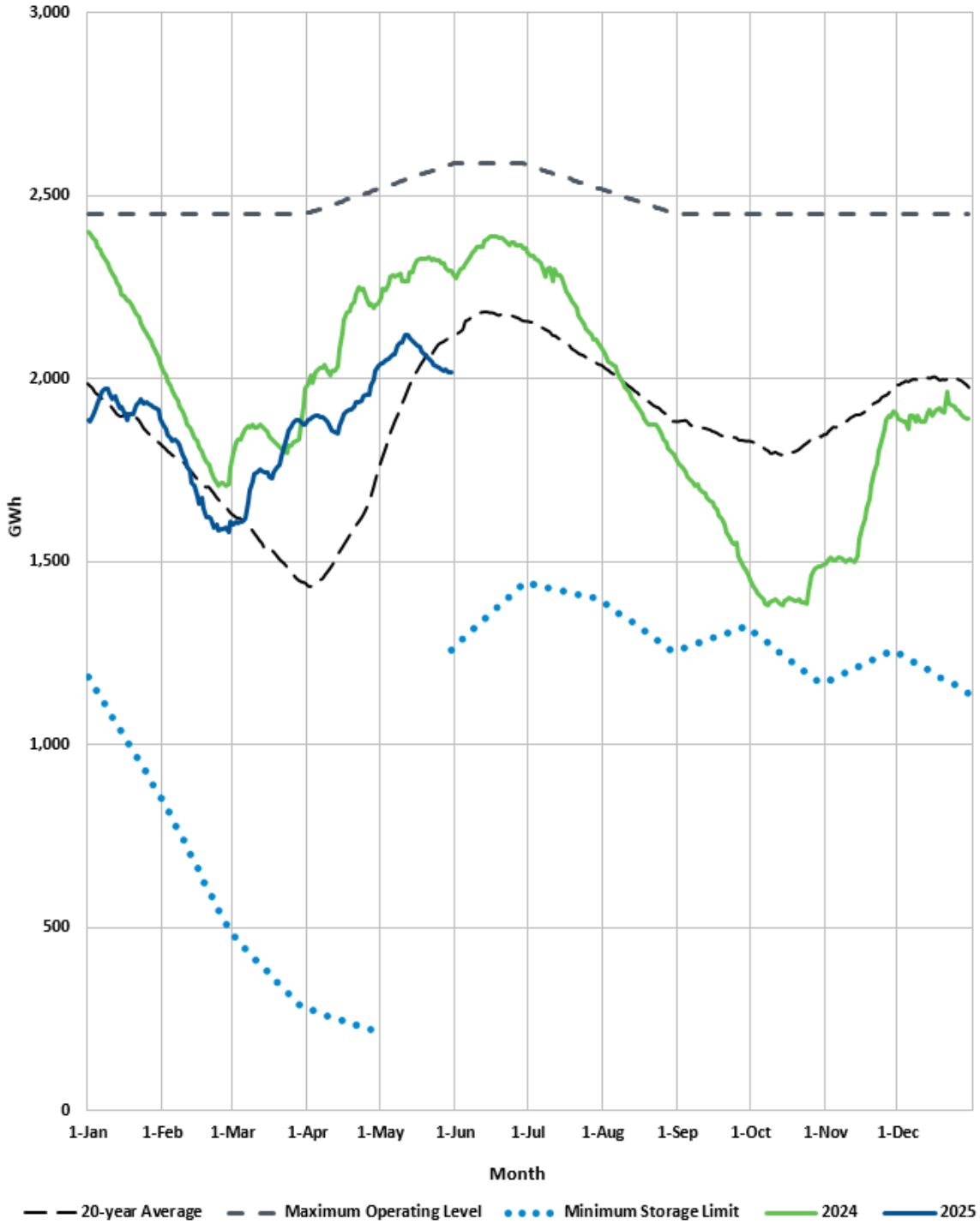

Figure 1: Total System Energy Storage[4]

[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.

2.1 Ponding

In Board Order No. P.U. 49(2018), the Board approved Hydro's application for approval of a Pilot Agreement for the Optimization of Hydraulic Resources ("Pilot Agreement").[5] The intent of the Pilot Agreement is to optimize Hydro's hydraulic resources through the strategic use of its storage capabilities, taking advantage of the variability of energy pricing in external markets over time.

Appendix A provides information regarding imported and exported energy transactions under the Pilot Agreement during the month. No ponding exports or imports occurred over the Maritime Link during May 2025.

2.2 Spill Activity

Appendix A provides information regarding spill avoidance export transactions undertaken.[6] On May 6, 2025, a standing instruction was issued to Energy Marketing to seek spill avoidance exports for the Bay d'Espoir Hydroelectric Generating Station, due to the current reservoir storage position and projected short-term risk of spill, as well as at the Cat Arm Hydroelectric Generating Station due to the projected risk of spill during the upcoming total plant outage during Summer 2025. On May 13, 2025, this instruction was revised such that spill-avoidance exports would only be sought for Cat Arm. No releases of water were required at any locations on the Island Interconnected System in May 2025. A summary of the year-to-date ("YTD") total volumes spilled or bypassed in both MCM[7] and GWh can be found in Table 3.

Table 3: Spill Activity

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

[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").

3.0 Production and Purchases

Appendix B provides a breakdown of power purchases, including the import and export activity over the LIL and Maritime Link and production by plant during May 2025. There was no energy repaid from CBPP[8] to Energy Marketing under the Temporary Energy Exchange Agreement in May 2025. There was no emergency energy supplied to Nova Scotia over the Maritime Link during May 2025.

4.0 Thermal Production

Unit 2 at the Holyrood TGS was online for system requirements until May 3, 2025. Total energy production from the Holyrood TGS was 3.4 GWh during the month. Standby generation was not used to support reservoir storage. The operating hours for the Holyrood TGS, Holyrood Combustion Turbine ("CT"), and the Hardwoods and Stephenville Gas Turbines ("GT") are summarized in Table 4.

Table 4: **Holyrood TGS and Combustion Turbines Operating Hours**

	Operating Hours	Synch Condense Hours	Available Hours
Holyrood TGS			
Unit 1	0	0	80.0
Unit 2	63.7	0	744.0
Unit 3	0	0	0
Combustion Turbines			
Hardwoods GT	0	104.9	104.9
Stephenville GT	1.0	22.9	744.0
Holyrood CT	1.9	0	686.8

5.0 Unit Deratings

Holyrood TGS Unit 1 was on standby at the beginning of May 2025 as it was not required to support system generation requirements. The unit began its planned annual maintenance outage on May 4, 2025.

Holyrood TGS Unit 2 was online at the beginning of May 2025, de-rated to 115 MW due to condenser back-pressure issues. On May 3, 2025, the unit was taken offline and placed on standby as it was not

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

required to support system generation requirements. Unit 2 remained in standby for the remainder of May 2025.

Holyrood TGS Unit 3 was on planned annual outage for the entire month of May 2025.

The Hardwoods GT was unavailable for an extended planned outage to complete an American Petroleum Institute (API) tank inspection, instrumentation upgrades as well as preventative maintenance and corrective maintenance activities beginning on May 5, 2025.During the planned outage it was determined that additional repairs are required due to corrosion of some sections of the tank floor as well as settling of the outer edge of the tank floor. The additional repairs will delay the return to service from July 30, 2025 to August 20, 2025.

The Holyrood CT was available for the full month of May 2025 except for a planned outage from April 23, 2025 to May 3, 2025 to complete preventative and corrective maintenance activities.

The Stephenville GT was available for the entire month of May 2025.

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)**
Total[1]	-	-	-	-	-	

Table A-2: Avoided Spill Energy

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

[1] Total transactions for May 2025.
[2] Total transactions for May 2025.

Appendix B

Production and Purchases

Table B-1: Generation and Purchases (GWh)[1,2]

	May-25	YTD May 2025
Hydro Generation (Hydro)		
Bay d'Espoir		
Unit 1	0.0	121.6
Unit 2	0.0	110.0
Unit 3	38.9	164.1
Unit 4	33.0	106.1
Unit 5	37.7	110.9
Unit 6	46.7	138.5
Unit 7	93.0	427.6
Subtotal Bay d'Espoir	249.3	1,178.7
Upper Salmon	51.5	262.0
Granite Canal	18.1	105.0
Hinds Lake	20.7	179.1
Cat Arm		
Unit 1	44.8	204.3
Unit 2	47.2	207.2
Subtotal Cat Arm	92.0	411.5
Paradise River	2.0	15.9
Star Lake	11.3	58.5
Rattle Brook	2.6	7.1
Nalcor Exploits	52.2	262.0
Mini Hydro	0.0	0.0
Total Hydro Generation (Hydro)	**499.7**	**2,479.7**
Thermal Generation (Hydro)		
Holyrood TGS		
Unit 1	0.0	107.4
Unit 2	3.4	198.3
Unit 3	0.0	138.4
Subtotal Holyrood TGS Units	3.4	444.1
Holyrood Gas Turbine and Diesels	0.2	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)	**3.5**	**450.5**
Purchases		
Requested Newfoundland Power and Vale	0.0	0.1
CBPP		
Capacity Assistance	0.0	0.0
Power Purchase Agreement	0.0	34.4
Secondary	0.1	0.3
Co-Generation	2.9	22.6
Subtotal CBPP	3.0	57.3
Wind Purchases	13.7	85.8
Maritime Link Imports[3]	0.0	0.0
New World Dairy	0.1	0.8
Labrador Island Link Delivery to IIS[4,5]	60.5	477.2
Total Purchases	**77.2**	**621.1**
Total	**580.4**	**3,551.4**

[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.
[4] LIL deliveries to the Island Interconnected System are calculated as LIL imports of 291.3 GWh less Maritime Link exports of 230.9 GWh.
[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.