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September 17, 2020

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

Attention: Ms. Cheryl Blundon
Director Corporate Services & Board Secretary

Dear Ms. Blundon:

Re: Monthly Energy Supply Report for the Island Interconnected System for August 2020

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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Senior Legal Counsel, Regulatory
SAW/sk

Encl.

ecc: **Board of Commissioners of Public Utilities**
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Monthly Energy Supply Report for the Island Interconnected System for August 2020

September 17, 2020

A report to the Board of Commissioners of Public Utilities



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Appendix A: Production and Purchases

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, as contained in Hydro's Quarterly 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 August 2020.

2.0 System Hydrology

Reservoir inflows in August 2020 were approximately 46% above the month’s historical average. Inflows in 2020 to date have increased to 2% above the historical average.

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	2020 (GWh)	2019 (GWh)	20-Year Average (GWh)	Minimum Storage Limit (GWh)	Maximum Operating Level (GWh)	Percentage of Maximum Operating Level (%)
31-Aug-2020	1,778	1,336	1,846	1,313	2,449	73

The aggregate reservoir storage level on August 31, 2020 was 1,778 GWh, which is 27% below the seasonal maximum operating level and 35% above the minimum storage limit.¹ The current storage level

¹ Minimum storage targets 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 target is designed to show 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, maximum generation at Holyrood Thermal Generating Station, and non-firm imports. Hydro’s long-term critical dry sequence is defined as January 1959 to March 1962 (39 months). Other dry periods are also examined during the derivation to ensure that no other shorter term historic dry sequence could result in insufficient storage.

17 is shown in Figure 1 in relation to the 20-year average storage level for the end of August of 1,846 GWh.
 18 At the end of August 2019, the aggregate storage level was 1,336 GWh.

19 Figure 1 plots the 2019 and 2020 storage levels, maximum operating level storage, and the 20-year
 20 average aggregate storage for comparison.

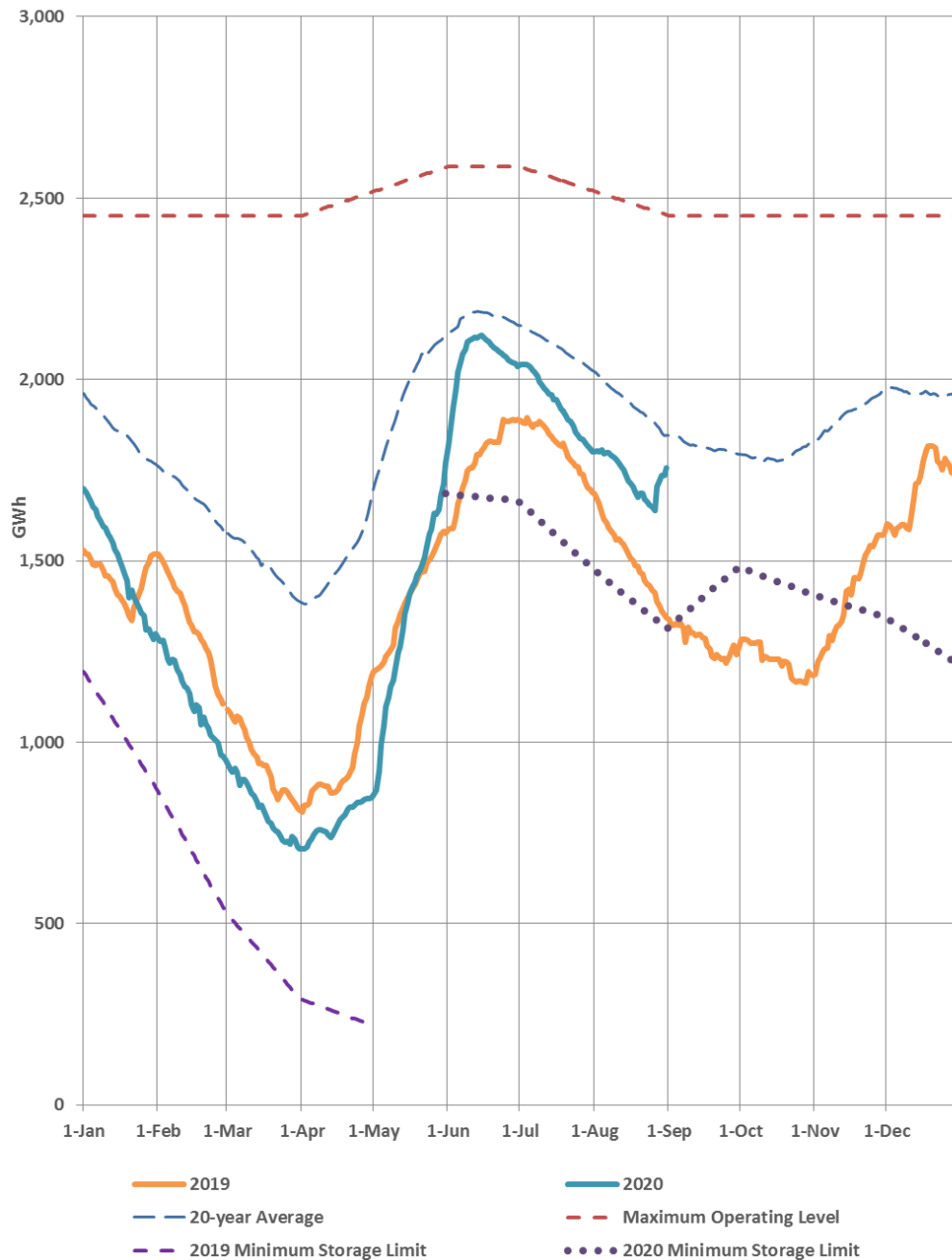


Figure 1: Total System Energy Storage

21 **3.0 Production and Purchases**

22 Appendix A provides a breakdown of power purchases, including imports, and production by plant
23 during August 2020.

24 **4.0 Thermal Production and Imports**

25 Holyrood Thermal Generating Station (“Holyrood TGS”) Unit 3 was operated in synchronous condenser
26 mode in all hours of August 2020 for system requirements. Holyrood TGS Unit 1 and Unit 2 were not
27 operated during August 2020. As such, there was no energy production from Holyrood TGS during the
28 month of August 2020.

29 Standby units were operated for a total of 66.3 hours during the month. Total standby generation during
30 the month was 1.4 GWh. Standby generation was not required specifically to support reservoir storage.

31 There were no imports over the Maritime Link in August 2020. The ponded balance remains at -2.1 GWh
32 as of August 31, 2020. There was no energy imported over the Labrador-Island Link in August 2020 due
33 to the continued outage.

34 **5.0 Unit Deratings**

35 Holyrood TGS Unit 1 was on planned annual outage until permits were removed; start-up activities
36 commenced on August 25, 2020 and continued through the end of the month. Holyrood TGS Unit 2
37 remained on planned annual outage for the entire month of August 2020. Holyrood TGS Unit 3 was
38 online in synchronous condenser mode for the entire month of August 2020.

39 The Stephenville Gas Turbine was available at full capacity for the entire month of August 2020.

40 The Hardwoods Gas Turbine was available at full capacity for the majority of August 2020, with the
41 exception of planned outages on August 5, 2020 and August 25, 2020 to repair an oil leak from a bearing
42 thermocouple on End A’s power turbine.

Appendix A

Production and Purchases

Monthly Energy Supply Report for the Island Interconnected System for August 2020
Appendix A: Production and Purchases

Production and Purchases²

	August 1, 2020 to August 31, 2020 (GWh)	Year-to-Date August 31, 2020 (GWh)
Hydro Generation (Hydro)		
Bay d'Espoir Plant		
Unit 1	6.4	237.8
Unit 2	0.3	234.4
Unit 3	35.7	245.0
Unit 4	12.7	85.6
Unit 5	15.5	130.5
Unit 6	28.7	171.3
Unit 7	84.4	645.1
Subtotal Bay d'Espoir Plant	183.7	1,749.7
Upper Salmon Plant	31.9	365.2
Granite Canal Plant	13.1	146.5
Hinds Lake Plant	17.5	228.2
Cat Arm Plant		
Unit 1	14.6	250.9
Unit 2	13.4	273.4
Subtotal Cat Arm Plant	28.0	524.4
Paradise River	2.0	22.9
Star Lake Plant	10.9	93.7
Rattle Brook Plant	0.8	7.2
Nalcor Exploits Plants	44.4	395.0
Mini Hydro	0.0	0.0
Total Hydro Generation	332.4	3,532.8
Thermal Generation (Hydro)		
Holyrood TGS		
Unit 1	0.0	251.7
Unit 2	0.0	302.7
Unit 3	0.0	199.0
Subtotal Holyrood TGS Units	0.0	753.4
Holyrood Gas Turbine and Diesels	1.1	3.8
Hardwoods Gas Turbine	0.3	0.5
Stephenville Gas Turbine	0.0	0.4
Other Thermal	0.0	0.1
Total Thermal Generation	1.4	758.3
Purchases		
Requested Newfoundland Power and Vale	0.0	0.1
Corner Brook Pulp and Paper		
Capacity Assistance	0.0	0.0
Firm Energy PPA	0.0	0.0
Secondary	13.8	35.5
Co-Generation	3.1	34.6
Subtotal Corner Brook Pulp and Paper	16.9	70.1
Wind Purchases	11.7	111.5
Maritime Link Imports ³	0.0	179.9
New World Dairy	0.3	1.6
Labrador-Island Link Imports ⁴	0.0	0.0
Total Purchases	28.9	363.3
Total⁵	362.7	4,654.4

² Gross generation.

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

⁴ Includes purchases as a result of testing activity.

⁵ Actuals reflect rounded values to the nearest tenth of a GWh. Differences between total vs. addition of individual components due to rounding.