newfoundland labrador hydro
a nalcor energy company

Hydro Place. 500 Columbus Drive.
P.O. Box 12400. St. John's. NL
Canada A1B 4K7
t. 709.737.1400 f. 709.737.1800
www.nlh.nl.ca

February 17, 2021

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 January 2021

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/kd

Encl.

ecc: **Board of Commissioners of Public Utilities**
Jacqui Glynn
PUB Official Email

Newfoundland Power
Gerard M. Hayes
Regulatory Email

Consumer Advocate
Dennis M. Browne, Q.C., Browne Fitzgerald Morgan & Avis
Stephen F. Fitzgerald, Browne Fitzgerald Morgan & Avis
Sarah G. Fitzgerald, Browne Fitzgerald Morgan & Avis
Bernice Bailey, Browne Fitzgerald Morgan & Avis

Industrial Customer Group
Paul L. Coxworthy, Stewart McKelvey
Denis J. Fleming, Cox & Palmer
Dean A. Porter, Poole Althouse

Praxair Canada Inc.
Sheryl E. Nisenbaum

Teck Resources Limited
Shawn Kinsella

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A report to the Board of Commissioners of Public Utilities

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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, 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 January 2021.

2.0 System Hydrology

Reservoir inflows in January 2021 were approximately 78% of the month's historical average. To date, 2021 inflows have been 78% of 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	2021 (GWh)	2020 (GWh)	20-Year Average (GWh)	Minimum Storage Limit (GWh)	Maximum Operating Level (GWh)	Percentage of Maximum Operating Level (%)
31-Jan-2021	1,777	1,286	1,733	877	2,434	73

The aggregate reservoir storage level on January 31, 2021 was 1,777 GWh, which is 27% below the seasonal maximum operating level and 103% above the minimum storage limit.[1] The current storage

[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.

level is shown in Figure 1 in relation to the 20-year average storage level for the end of January of 1,733 GWh. At the end of January 2020, the aggregate storage level was 1,286 GWh.

Figure 1 plots the 2020 and 2021 storage levels, maximum operating level storage, and the 20-year average aggregate storage for comparison.

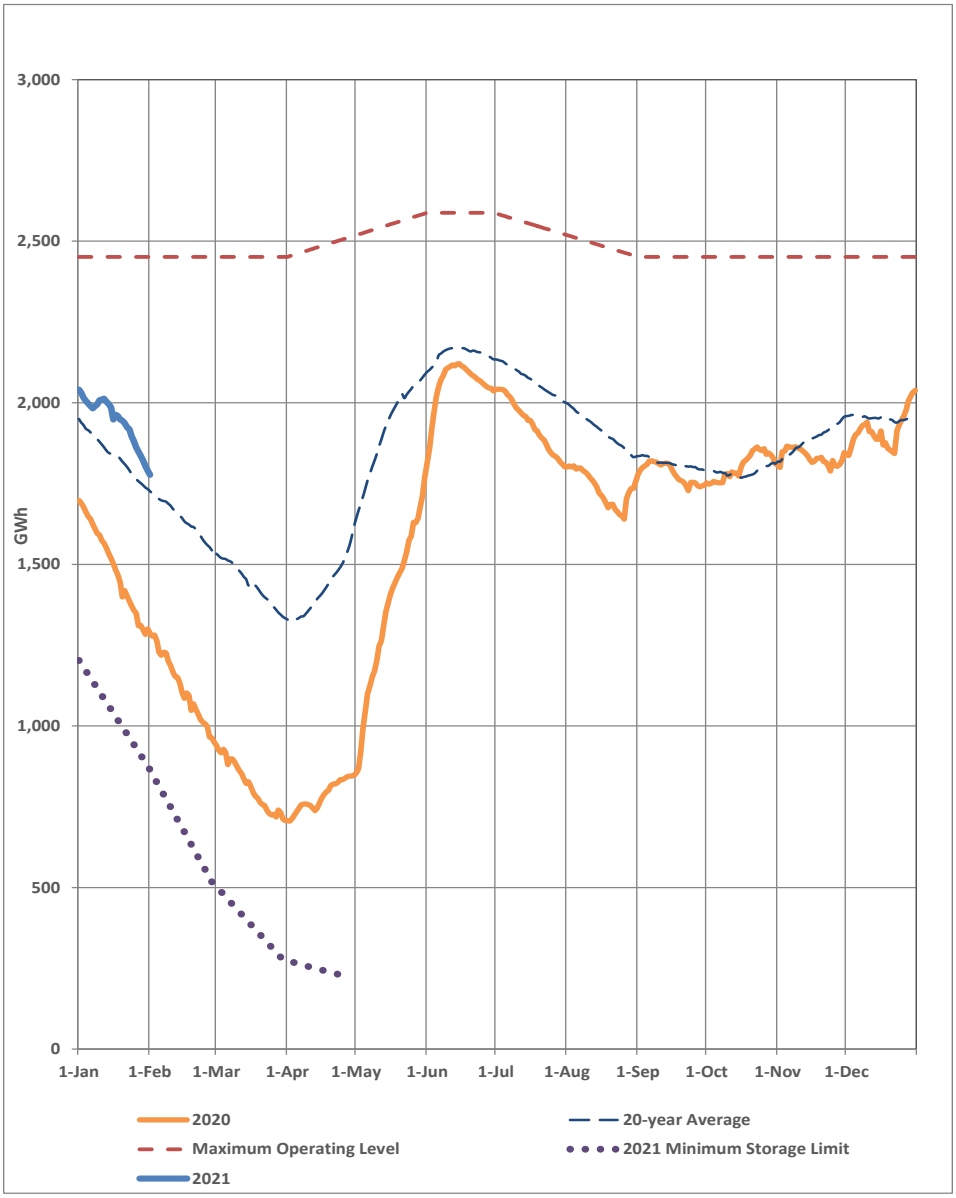

Figure 1: Total System Energy Storage[2]

[2] As reported in the April 2020 Monthly Energy Supply Report, filed with the Board on May 19, 2020, Hydro established minimum storage limits to April 2021 in consideration of potential delays in the availability of the Labrador-Island Link to deliver energy to the Island Interconnected System.

3.0 Production and Purchases

Appendix A provides a breakdown of power purchases, including imports, and production by plant during January 2021.

4.0 Thermal Production and Imports

Units 1, 2, and 3 at the Holyrood Thermal Generating Station ("Holyrood TGS") were required to generate during January 2021 to reliably meet Hydro's customer demand requirements. Unit 1 was operated for 744 hours, Holyrood TGS Unit 2 was operated for 744 hours, and Holyrood TGS Unit 3 operated for 225.3 hours. Total Holyrood TGS production was 127.8 GWh.

Standby units were operated for a total of 7.1 hours during the month. Total standby generation during the month was 0.3 GWh. Standby generation was not required to support reservoir storage.

In January 2021, there were no ponding imports or imports for Hydro over the Maritime Link. The ponded balance at month end was -3.4 GWh. Testing activities continued on the Labrador-Island Link in January 2021, resulting in the delivery of 60.5 GWh of energy at Soldiers Pond. On January 11, 2021, approximately 0.5 GWh was generated to supply Emergency Energy to Nova Scotia Power, pursuant to the Interconnection Operators Agreement[3] between Hydro and Nova Scotia Power.[4] Total exports over the Maritime Link for the month of January were 30.5 GWh.[5]

5.0 Unit Deratings

Holyrood TGS Units 1 and 2 were operating at full capability for the month of January 2021. Holyrood TGS Unit 3 was on line at full capability at the beginning of January 2021. On January 5, 2021 the unit was placed on hot standby as the unit was not required to meet system requirements. On January 18, 2021, with the unit still on hot standby, a tube leak was discovered which required a forced outage to repair. The tube leak was repaired on January 26, 2021 and the unit was placed back on line and was available at full capability on January 27, 2021.

[3] Article 5, Schedules A3 and C9.
[4] A copy of the agreement was provided in "The Board's Investigation and Hearing into Supply Issues and Power Outages on the Island Interconnected System – Availability of Requested Information from Hydro, July 5, 2017 Update," Appendix C.
[5] Total exports include the provision of emergency and inadvertent energy to Nova Scotia Power Inc. and export activity conducted by Nalcor Energy Marketing.

The Stephenville and Hardwoods Gas Turbines were available at full capacity for the entire month of January 2021.

Appendix A

Production and Purchases

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Production and Purchases[6]

	January 1, 2021 to January 31, 2021 (GWh)	Year-to-Date January 31, 2021 (GWh)
Hydro Generation (Hydro)		
Bay d'Espoir Plant		
Unit 1	42.9	42.9
Unit 2	42.6	42.6
Unit 3	36.8	36.8
Unit 4	19.5	19.5
Unit 5	30.5	30.5
Unit 6	22.1	22.1
Unit 7	93.3	93.3
Subtotal Bay d'Espoir Plant	**287.5**	**287.5**
Upper Salmon Plant	53.8	53.8
Granite Canal Plant	24.4	24.4
Hinds Lake Plant	38.2	38.2
Cat Arm Plant		
Unit 1	37.7	37.7
Unit 2	38.9	38.9
Subtotal Cat Arm Plant	**76.6**	**76.6**
Paradise River	2.6	2.6
Star Lake Plant	12.3	12.3
Rattle Brook Plant	0.9	0.9
Nalcor Exploits Plants	54.7	54.7
Mini Hydro	0.0	0.0
Total Hydro Generation	**551.0**	**551.0**
Thermal Generation (Hydro)		
Holyrood TGS		
Unit 1	55.8	55.8
Unit 2	55.8	55.8
Unit 3	16.2	16.2
Subtotal Holyrood TGS Units	**127.8**	**127.8**
Holyrood Gas Turbine and Diesels	0.3	0.3
Hardwoods Gas Turbine	0.0	0.0
Stephenville Gas Turbine	0.0	0.0
Other Thermal	0.0	0.0
Total Thermal Generation	**128.1**	**128.1**
Purchases		
Requested Newfoundland Power and Vale	0.0	0.0
Corner Brook Pulp and Paper		
Capacity Assistance	0.0	0.0
Firm Energy Power Purchase Agreement	0.0	0.0
Secondary	3.6	3.6
Co-Generation	5.4	5.4
Subtotal Corner Brook Pulp and Paper	**9.0**	**9.0**
Wind Purchases	17.3	17.3
Maritime Link Imports[7]	0.2	0.2
New World Dairy	0.3	0.3
Labrador-Island Link Imports[8]	60.5	60.5
Total Purchases	**87.4**	**87.4**
Total[9]	**766.5**	**766.5**

[6] Gross generation.
[7] Includes energy flows as a result of purchases and inadvertent energy.
[8] Includes purchases as a result of testing activity as well as deliveries that are then exported over the Maritime Link.
[9] Actuals reflect rounded values to the nearest tenth of a GWh. Differences between total vs. addition of individual components due to rounding.