

1 Q. **Requests for information in relation to Hydro’s Monthly Energy Supply Report for the Island**  
2 **Interconnected System for May 2020, filed with the Board on June 16, 2020 (the “May 2020**  
3 **Monthly Energy Supply Report”).**

4 At page 2, lines 31-34 of the May 2020 Monthly Energy Supply Report, Hydro states as follows:

5 “Figure 1 plots the 2019 and 2020 storage levels, maximum operating level storage, and the 20-  
6 year average aggregate storage for comparison. Hydro has established minimum storage limits  
7 to April 30, 2021 in consideration of potential delays in the availability of the Labrador-Island  
8 Link (“LIL”) to deliver energy to the Island Interconnected System. This will help ensure sufficient  
9 storage to reliably serve customers should the LIL continue to be delayed beyond the fall of  
10 2020.”

11 With reference to IC-NLH-001, can Hydro also graphically depict, in the requested extension to  
12 Figure 1 or in a new figure, the minimum storage limit(s) for the years prior to 2000 to 2018 (or  
13 for at least to as far back as Hydro has established a minimum storage limit, if less than 20  
14 years), and provide the reason for any changes in the minimum storage limit over that period.

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17 A. Figure 1 graphically represents the historical minimum storage limits from the year 2010 until  
18 the year 2020. There were significant changes to the system in the period from 2000–2009,  
19 including the loss of a large industrial customer and the acquisition of the associated generation  
20 and the addition of multiple power purchase agreements which reduces the relevance of those  
21 limits to be used in comparison to minimum storage limits established in more recent years.

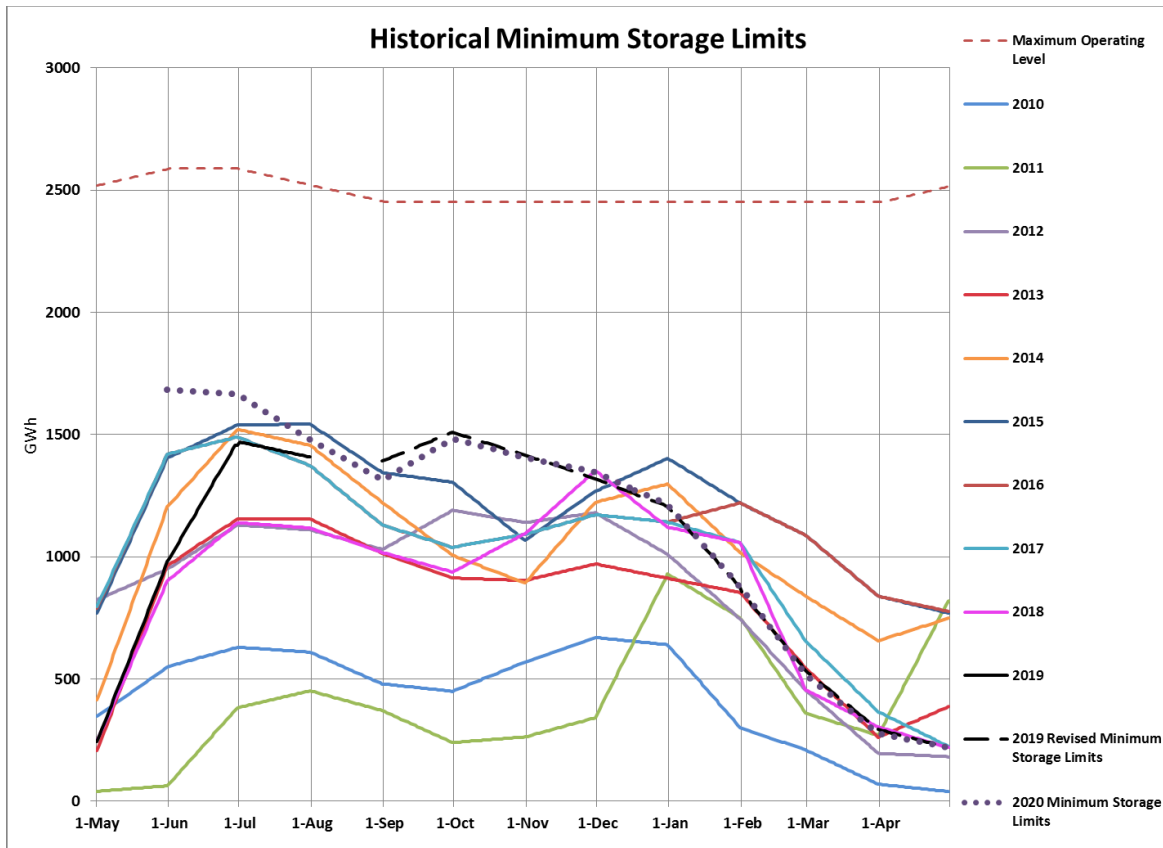


Figure 1: Historical Minimum Storage Limits

1 To meet system energy requirements, Newfoundland and Labrador Hydro uses a planning  
 2 methodology which balances hydraulic and thermal production and is continually monitored  
 3 and adjusted in consideration of system energy in storage, weather forecasts, thermal and  
 4 hydraulic asset health, forecast purchases, and forecast system requirements. Hydro has a  
 5 strong focus on ensuring the economic dispatch of its generation and specifically focuses on  
 6 maximizing generation from hydraulic sources and minimizing generation from thermal sources  
 7 to manage the resultant cost to customers while satisfying the established minimum storage  
 8 limits. This methodology balances cost and reliability by minimizing the amount of thermal  
 9 generation to the extent possible while ensuring sufficient energy in storage to reliably operate  
 10 the system in consideration of the historic hydraulic record.

11 As shown in Figure 1, while the general shape of the minimum storage limits has been  
 12 consistent through the period (i.e., highest following the conclusion of the freshet and in  
 13 advance of winter), changes in systems conditions and assumptions through that period have

1           resulted in limits that vary when compared year over year. Further, while the methodology for  
2           development of the minimum storage limits has remained consistent through this period, the  
3           tools used in the development of those limits have continued to evolve, which may have also  
4           contributed to changes in absolute limits. Other variance in recent years is primarily attributable  
5           to:

6           i.     Increased Derated Adjusted Forced Outage Rate assumptions at the Holyrood Thermal  
7           Generating Station result in a lower assumed capacity, resulting in increasing the  
8           minimum storage limits during the fall and winter months;

9           ii.    Uncertainty around timing of the Muskrat Falls Generating Station and the availability of  
10          the Labrador-Island Link; and

11          iii.   Changes in load and load forecast during the time period, including the addition of Vale  
12          Newfoundland and Labrador operations at the Long Harbour facility.