Q. **Re: RRAS (2018), Vol. I, page 30-31 (61-62 pdf)**

Citation:

The majority of the generators owned by Hydro are hydroelectric and therefore have limitations on the amount of annual energy available. Operation of each of Hydro's reservoirs is performed in accordance with Hydro's "Major Reservoir Operations Manual." Tables 1 and 2 provide information on the capability of the hydraulic generating fleet.

Preamble :

Table 1 shows the Installed Capacity and Gross Continuous Unit Rating for Modelled Hydraulic Generating Units.

a) Please confirm that the figures for Gross Continuous Unit Rating represent the firm capacity that the unit can be counted on to provide to meet Hydro's peak needs. If this is not the case, please :

   i. Clarify the meaning and use of the Gross Continuous Unit Rating figures; and

   ii. Indicate where firm capacity values are presented, that can be used to evaluate Hydro's ability to meet its peak capacity requirements.

b) Please indicate where in the RRAS (2018) or the RRAS 2019 Update the year-by-year capacity balances for i) the IIS, ii) the LIS, and iii) the NLIS are presented. If they are not, please provide updated year-by-year capacity balances, over the 10-year planning horizon.

c) Please explain why Muskrat Falls is modelled as « generation owned by Hydro » rather than as a Power Purchase Agreement.

A. a) It is correct that the figures presented represent the expected capacity available at system peak.

b) The capacity balance over the ten-year planning horizon are found in LAB-NLH-025, Attachment 1.

c) As discussed in Newfoundland and Labrador Hydro's ("Hydro") response to LAB-NLH-026, Hydro is entitled to the full capacity, less firm commitments, of the Muskrat Falls plant in any hour. As Hydro has the ability to schedule the generation at the Muskrat Falls plant it is appropriate to model it as "generation owned by hydro" in the reliability model. This is similar to how Exploits generation is treated in the model.

IIS Mitigated Rate Forecast, LIS Expected Forecast

	2021	2022	2023	2024	2025	2026	2027	2028	2029
NLIS Peak Demand	2,224	2,211	2,222	2,233	2,241	2,251	2,265	2,275	2,288
NLIS Available Capacity	2,980	2,610	2,602	2,602	2,602	2,602	2,602	2,602	2,602
NLIS Capacity Balance	756	399	380	370	361	351	337	327	315

IIS Low Growth Forecast, LIS Expected Forecast

	2021	2022	2023	2024	2025	2026	2027	2028	2029
NLIS Peak Demand	2,231	2,193	2,191	2,190	2,187	2,193	2,203	2,210	2,218
NLIS Available Capacity	2,980	2,610	2,602	2,602	2,602	2,602	2,602	2,602	2,602
NLIS Capacity Balance	749	417	411	412	415	409	399	392	384

IIS High Growth Forecast, LIS Expected Forecast

	2021	2022	2023	2024	2025	2026	2027	2028	2029
NLIS Peak Demand	2,234	2,214	2,227	2,249	2,259	2,271	2,291	2,303	2,317
NLIS Available Capacity	2,980	2,610	2,602	2,602	2,602	2,602	2,602	2,602	2,602
NLIS Capacity Balance	746	396	375	353	343	331	311	300	285

IIS Mitigated Rate Forecast, LIS Industrial Growth Forecast

	2021	2022	2023	2024	2025	2026	2027	2028	2029
NLIS Peak Demand	2,237	2,224	2,234	2,245	2,253	2,264	2,278	2,288	2,300
NLIS Available Capacity	2,980	2,610	2,602	2,602	2,602	2,602	2,602	2,602	2,602
NLIS Capacity Balance	743	386	368	357	349	338	324	315	302

IIS Low Growth Forecast, LIS Industrial Growth Forecast

	2021	2022	2023	2024	2025	2026	2027	2028	2029
NLIS Peak Demand	2,244	2,205	2,204	2,202	2,200	2,205	2,215	2,223	2,231
NLIS Available Capacity	2,980	2,610	2,602	2,602	2,602	2,602	2,602	2,602	2,602
NLIS Capacity Balance	736	405	398	400	402	397	387	379	371

IIS High Growth Forecast, LIS Industrial Growth Forecast

	2021	2022	2023	2024	2025	2026	2027	2028	2029
NLIS Peak Demand	2,247	2,227	2,239	2,262	2,271	2,284	2,304	2,315	2,330
NLIS Available Capacity	2,980	2,610	2,602	2,602	2,602	2,602	2,602	2,602	2,602
NLIS Capacity Balance	733	383	363	340	331	318	298	287	272