Q. **Re: RRAS, 2019 Update, Vol. III, page 14 (254 pdf)**

Citation:

> Existing on-island hydraulic generation is anticipated to continue to produce an average of 4,600 GWh of energy annually. Energy from the MFGS will be provided to Hydro in accordance with annual entitlements, starting at 2 TWh per year and growing to 2.5 TWh within the study period.
>
> MFGS and Bay d'Espoir are the largest energy producing facilities in the NLIS. Figure 2 shows the monthly energy profile assumed for these units. From the profiles presented it is seen that the large storage potential at Bay d'Espoir allows generation at the facility to follow the system load shape, while the generation profile for MFGS shows the seasonality associated with lower flow through the end of winter and increased production in the spring run-off period. (underlining added)

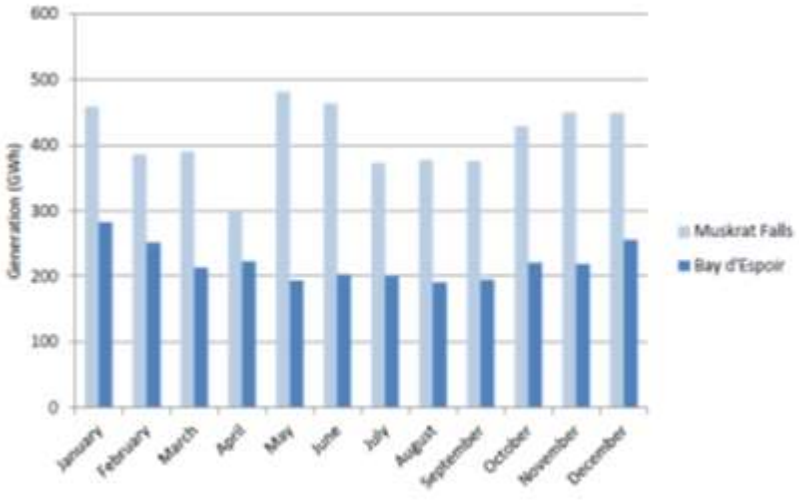

Figure 2: Muskrat Falls and Bay d'Espoir Generation Profile

a) Please confirm that a capacity shortfall in either Labrador or on the Island could, if unremedied, result in unserved load in either sub-region?

b) Please confirm that, according to Figure 2, generation from MFGS in January is expected to be around 460 GWh, and indicate the corresponding average January capacity factor.

c) Please explain how the last response is consistent with the value of 790 MW given as the « Gross Continuous Unit Rating » of the MFGS in Table 1 (page 13).

d) Please describe in detail Hydro's entitlements to capacity from the MFGS under the existing PPA.

e) Does the existence of the Water Management Agreement affect the extent to which the Muskrat Falls project can contribute to meeting the capacity needs of the NLIS in winter? If so, please explain in detail, and provide a chart similar to Figure 2 which illustrates the MFGS contribution to Hydro's capacity needs, taking into account the WMA.

A. a) Please refer to Newfoundland and Labrador Hydro's ("Hydro") response to LAB-NLH-002, part b).

b) The average January generation, based on the table above is 459 GWh which represents a capacity factor of 78% based on the assumed available capacity of 790 MW.

c) Please refer to Hydro's response to part b.

d) Under the Power Purchase Agreement Hydro is entitled to the full capacity of the Muskrat Falls Plant that is available in any hour minus the firm capacity associated with the Nova Scotia Block and additional Contracted Commitments to external markets made by Muskrat Falls Corporation. These additional Contracted Commitments can only be made for capacity available in excess of that previously forecast as being required by Hydro.

e) Please refer to Hydro's response to LAB-NLH-024.