

**2018 Capital Budget Application – Revised Information pursuant to Order P.U. 43(2017) –
Muskrat Falls to Happy Valley Interconnection Project**

1 Q. Please provide estimates of the additional generation that would be required –
2 both in MW and in MWh/year – to meet forecast loads for a) the 2018-2019 winter,
3 and b) the 2019-2020 winter, taking into account the specific load shapes of existing
4 and planned data centre loads, as well as the existing clientele. Please indicate how
5 many hours supplemental generation would be required per year under each
6 forecast.

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9 A. Please refer to the response for question 5 in “Attachment 1 – Responses to PUB
10 Questions”, submitted by Hydro on March 6, 2018. The load forecast is for existing
11 Hydro customers. Planned data centres that are not Hydro customers are not yet
12 forecasted, and are not accounted for in this response.

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14 The projected operating hours required per year is included in Table 1. The number
15 of operating hours affects the fuel consumption; however, it is common industry
16 practice for a utility to ensure its transmission systems can support this maximum
17 peak demand, regardless of its duration. The bulk of the cost to provide this
18 additional generation is in the capacity requirements (MW), not the energy
19 requirements (MWh, or operating hours).

Table 1: Summary of Diesel Generation Requirements

Year	Minimum Units Required	Operating Hours (hrs)	Energy Consumed (MWh)	Fuel Consumed (L)
2018-2019	5	184	208	59,700
2019-2020	6	327	383	109,000