

## Newfoundland and Labrador Hydro – Muskrat Falls to Happy Valley Interconnection

Page 9 of the report entitled Eastern Labrador Transmission System – Planning Report (Revision 1 – January 25, 2018) states that “the 7.6 MW increase in the 2017 forecast is a direct result of service applications for new data centers”.

- Please confirm that the data centre load is coincident with the peak load for Happy Valley – Goose Bay.
- Does Hydro have long-term commitments from these data centre customers? If so, please provide the commitment timelines.
- Has Hydro completed or reviewed any analyses with respect to price elasticity associated with these types of cryptocurrency data mining centres? Does Hydro expect these data centre customers to remain customers in the Happy Valley – Goose Bay area if electricity costs increase significantly or even moderately given the relative ease with which the data centres can be relocated?

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Please provide the actual peak load attained in 2016, 2017, and to date in 2018 for the Happy Valley – Goose Bay area. In the event that the actual peak load for 2017 differs from the forecasted 79.9 MW please provide the reason(s) for the difference.

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Hydro indicates that the cumulative present worth costs associated with transmission line L1301 (including its associated assets at Churchill Falls Terminal Station and Muskrat Falls Tap Station MFATS3) and the Happy Valley Gas Turbine are approximately \$8 million and \$21 million respectively over the study period if current operating and maintenance procedures remain unchanged.

- Hydro states in its January 29, 2018 correspondence accompanying the revised project submission that “with respect to the operational and maintenance plan for the Happy Valley gas turbine, as part of the recommended option, the unit will have a much lower utilization as it will not be required to operate as a synchronous condenser for load transfer”. Please provide an estimate of the cost savings over the study period associated with this reduced gas turbine utilization as well any savings resulting from L1301 being open circuited at MFATS3.

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If this project were to be deferred until confirmation of the approximately 12 MW of additional DND load currently anticipated in 2020, what solution (e.g., mobile diesel generators, curtailment, etc.) would Hydro implement to handle the load in the Happy Valley – Goose Bay area?

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Please provide a cost estimate for Option 7 – Addition of Mobile Diesels such that sufficient mobile diesel generation is installed to accommodate the 2019 forecasted peak load of 81.4 MW. The cost estimate should include the costs associated with fuel storage, fuel supply, staffing maintenance,

interconnection costs and permitting. The mobile diesel generation would be in addition to the existing diesel generator and support infrastructure already in place at Happy Valley – Goose Bay.

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Within the response to RFI IOC-NLH-033, as part of Hydro's 2017 GRA, Hydro states that "Hydro is in the process of developing a network addition policy in preparation for meeting the requirements to provide open access transmission".

- Has Hydro developed a network addition policy? If so, please provide a copy to the Board.
- Will the network addition policy apply to the Labrador Interconnected System? If so, how would the policy treat new loads such as those associated with the data centres and DND?

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Please confirm that the primary reason for this project is to accommodate load growth and that while reliability improvements are welcome the project would not proceed based on reliability alone.

- How does the Happy Valley – Goose Bay area compare in terms of reliability (SAIDI, SAIFI, etc.) with western Labrador and the Northern Peninsula on the island portion of Newfoundland and Labrador?