Q. **Re: GRK-NLH-44**

Citation:

In the (very) unlikely event of a dam breach at Muskrat Falls, several options are available to Hydro. As stated in Hydro's response to GRK-NLH-004: "Upon the completion of the Labrador-Island Link and the Maritime Link, the Island of Newfoundland will, for the first time, have access to electricity from neighbouring utilities. … These transmission interconnections will, if necessary, enable the Energy Control Centre operators to utilize emergency support from neighbouring utilities and to obtain power through electricity market arrangements either through the Quebec or Maritime Link interconnections."

In addition, with a continued 60 MW interruptible arrangement, Hydro will have sufficient installed capacity to supply full load until at least 2025. Beyond the 1650 MW load level, there are options available to supplement capacity that Hydro will explore including:

- Additional industrial and commercial interruptible load arrangements;
- Customer demand side management initiatives;
- Additional imports via the Maritime Link when existing constraints in the Maritime/New England systems are mitigated; and
- Potential on-Island capacity additions.

(underlining added)

Preamble:

The measures described here, in relation to a dam breach at Muskrat Falls, are also referred to in GRK-NLH-021 (Rev.1) as available in the event that Nalcor's interpretation of the renewal of the Churchill Falls Contract is not upheld.

Please elaborate on the likely availability, cost and lead times of each of the options described. In particular, please elaborate on:

- **The degree and extent to which additional industrial and commercial interruptible load arrangements can be relied upon, taking into account experiences of other utilities in this regard;**
- **The expected limits of customer demand side management initiatives, given NLH's and NP's experience to date in this field;**
- **Any constraints of all types limiting access to imports over the Maritime Link;**
- **Any constraints limiting of all types access to imports over the LITL; and**
- **The types, locations lead times and costs of the potential on-Island capacity additions to which reference is made.**

A. The complete set of options listed in Hydro's response to GRK-NLH-044 is as follows:

a) imports from neighbouring utilities over the Maritime Link;
b) additional industrial and commercial interruptible load arrangements;
c) customer demand side management initiatives;
d) additional imports when existing constraints in the Maritime/New England systems are mitigated;
e) Potential on-island capacity additions; and
f) Action by an emergency controller pursuant to the *Electrical Power Control Act, 1994.*

The Maritime Link has capability to import 500 MW from Nova Scotia, but import capability is constrained to approximately 300 MW due to intertie capacity between New Brunswick and Nova Scotia.

The Labrador-Island Transmission Link would be constrained to approximately 200 MW during emergency conditions in the event that generation from Muskrat Falls

was not on line. This constraint is the result of the loss of reactive power support for the Muskrat Falls converter from the Muskrat Falls plant.

As indicated in Hydro's response to GRK-NHL-044, Hydro indicated that items b) through e) are ones that Hydro will explore (emphasis added). Consequently, detailed answers to the specific questions are not available without further analysis between now and 2025.

In terms of commercial interruptible arrangements, Hydro is aware that some commercial and institutional customers in the Province have standby power generation facilities. An inventory of these customers is under development by Newfoundland Power. Hydro expects that load could be curtailed in an emergency through use of customer owned generation and will be following up further in this regard.

Potential hydroelectric generation facilities, specifically Island Pond[1], Portland Creek[2], and Round Pond[3], with a potential capacity of up to 88 MW were identified during the Muskrat Falls Review proceeding. These could be developed within a period of approximately five years. In addition, combustion turbine generation could be deployed within a period of approximately 24 months.

Hydro is currently undertaking a marginal cost study, the results of which are anticipated to more accurately inform customer demand side management issues going forward.

[1] Exhibit 5B, Muskrat Falls Review.
[2] Exhibit 5C, Muskrat Falls Review.
[3] Exhibit 5D, Muskrat Falls Review.