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Q: Re: Conclusion 2.8

Citation:

The increased focus on reserve levels, as opposed to a sole focus on LOLH, represents a significant step forward. The consideration of the P90 forecast also comprises an important improvement. Hydro's approach, which involved a degree of "wait and see," in the past did not turn out well between 2012 and 2014. As that recent experience demonstrated, the strategy has significant risks and can get dangerous in a hurry. Given the addition of significant new capacity with Muskrat Falls in the near future there is little need to add new generation now although reserves are still too low. However the strategy must be enhanced vigilance over load growth and unit availability, such that timely action can be taken if current reserves are jeopardized.

Preamble: The Conclusion seems to suggest that, while reserves are "too low", they are not low enough to require "timely action" at the present time.

Please confirm or correct the statement in the Preamble.

How much lower would reserves have to be before "timely action" would be required?

If reserves are found to be too low to provide reliable service prior to integration of Muskrat Falls power, what economic criteria are to be applied to determine whether or not the most cost effective additional measures (whether additional generation, improved availability or demand reduction) should be undertaken to improve those reserves?

A. Liberty confirms the statement in the preamble.

Supply planning does not lend itself to bright-line analysis. For example, it is not appropriate to say that a 15% reserve is adequate but a 14.5% reserve is not. In addition to the many variables, the degree of risk that a utility and its regulators are willing to accept is a major factor. In the case of Hydro, reserves are lower than Liberty considers comfortable, and hence risks are higher. Nevertheless, the unique circumstances on the Island, with a large block of generation just a few years away, argues against significant spending on new generation whose need is short-term, thus making risk more tolerable.

The essential question is how much more risk is tolerable. Liberty does not advocate taking inordinate risk of widespread outages due to supply shortages. The

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question is, therefore, what factors might push Hydro towards that possibility and, if those factors materialize, what actions should be taken. Liberty believes reserves in the 10% range are too low in general and, given the risk equation, probably borderline for Hydro at the present time.

This "borderline" condition suggests that Hydro must be on the alert for any event that might tip the risk across the line into troubling territory. The obvious factors that could do that are (1) unexpected higher loads and (2) lower than expected supply availability. This situation also presents the circumstances that cause Liberty to focus on expediting determinations on whether demand reduction potential can make a marginal improvement to peak load reduction over the next several years.

Such factors will be monitored by Hydro and the Board. Liberty believes that a turn for the worse for either will require some action, and the most practical and cost-effective actions may prove to be new generation or the acceptance of a higher probability of supply-related outages.

With respect to the economic criteria to apply in considering additional measures, there is no formulaic approach. The judgment on what if any to pursue should be based upon a consideration of all available alternatives, their contribution to mitigating risk, and their costs. When the best alternatives are identified, there remains a judgmental decision on whether the risks mitigated are worth the cost involved. Very frequently, such judgments do not present simple "yes/no" decisions, but a determination of how long preferred alternatives can be delayed, thus affecting their economics. Resource planning generally takes a long-term view. A complicating factor here is the degree to which the introduction of Muskrat Falls affects the long-term usefulness of alternatives that may provide short-term relief. To the extent that additional measures would have only short-term value, it may well be appropriate to take for the short-term a risk that would not be considered tolerable over the long term.

Regarding this RFI's characterization of "timely action", we note that some actions are appropriate now, and the report listed those recommended actions:

- 1. Prepare an emergency contingency plan to identify all generation resources for a potential supply emergency while the new CT remains unavailable.
- 2. Report to the Board all steps being taken to expedite completion of the new CT.
- 3. Be prepared to trigger emergency plans when and if extreme weather sufficient to reach or exceed expected peaks is forecast.
- 4. Report to the Board daily whenever forecasted reserves for the day are less than 10 percent.
- 5. Report to the Board immediately whenever forecast reserves fall under 10 percent during any day.