

1 Q. Please provide details of Hydro's generation planning and operating criteria and
2 associated time frames; i.e., time in advance of operating day. Please equate the
3 criteria to a reserve margin.

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6 A. On an annual basis, Hydro prepares a generation plan, including a Generation
7 Outage Schedule.¹ This outlines the generating units (Hydroelectric and Thermal)
8 maintenance requirements and the outage times associated with each generating
9 unit. Hydro develops this schedule using N-1 reserve criteria. Essentially, Hydro
10 ensures there is enough reserve available to cover the trip of the largest online unit.
11 To determine if there is enough N-1 reserve available, the load forecast for each
12 week of the year is input into the schedule. This load forecast is provided by the
13 System Planning department.

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15 On a shorter term basis (day to day, week to week), the System Operations
16 department will review any additional outage requests for generating units, other
17 than those identified in the Generation Outage Schedule, and either approve or
18 reject the request. The same N-1 criteria are used in this decision making.
19 However, the short term load forecasting application, Nostradamus, is used to
20 determine the load forecast during the requested outage time.

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22 In addition to the above, each operating day, the Energy Control Centre (ECC)
23 maintains a minimum spinning reserve² equal to 70 MW. This is required to cover

¹ A copy of the Generation Outage Schedule is attached as Appendix D to the *Report to the Board of Commissioners of Public Utilities Related to Generation Availability*, filed with the Board on June 16, 2014.

² Spinning Reserves are defined as unloaded generation that is synchronized to the power system and ready to serve additional demand.

Island Interconnected System Supply Issues and Power Outages

- 1 performance uncertainties in generating units, especially wind and other variable
- 2 generation and unanticipated increases in demand.