

1 Q. (Response to CA-NLH-5) It is stated (page 1 of 2, lines 22 to 23) *"In addition to the*
2 *above, each operating day, the Energy Control Centre (ECC) maintains a minimum*
3 *spinning reserve equal to 70 MW"*. Does this level of reserve satisfy NERC
4 requirements, and will it be adequate post Muskrat Falls?

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7 A. There are no requirements from NERC to maintain a minimum spinning reserve. As
8 stated in Hydro's response to CA-NLH-005, the 70 MW was required to cover
9 performance uncertainties in generating units, especially wind and other variable
10 generation and unanticipated increases in demand.

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12 The Northeast Power Coordinating Council (NPCC) Directory #5 – Reserve has a
13 requirement for ten minute reserve. The ten minute reserve is a combination of
14 synchronized (spinning) and non-synchronized reserve and each balancing authority
15 must have available to it a ten minute reserve that is at least equal to its first
16 contingency loss (largest generator). The requirement for synchronized reserve
17 available within ten minutes is based on demonstrated performance but the
18 requirements shall not be more than 100% or less than 25% of the ten minute
19 reserve requirement. For Hydro, the largest unit would either be Holyrood Unit #1
20 or Unit #2 (170 MW) or Bay d'Espoir Unit #7 (154 MW). The percentage of spinning
21 reserves in these cases would be 41% and 46% respectively. Therefore, the 70 MW
22 reserve does fall into the NPCC criteria.

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24 There is more detailed analysis required prior to Muskrat Falls on how much
25 reserve is required for the Energy Control Centre (ECC) to maintain. One thing to
26 note is that NERC reliability standard BAL-002-1 has the following requirement:

1 "[a] Balancing Authority may elect to fulfill its Contingency Reserve obligations by
2 participating as a member of a Reserve Sharing Group. In such cases, the Reserve
3 Sharing Group shall have the same responsibilities and obligations as each
4 Balancing Authority with respect to monitoring and meeting the requirements of
5 Standard BAL-002."
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7 With the interconnection to Nova Scotia via the Maritime Link, Hydro will have the
8 ability to participate as a member of a reserve sharing group. The development of
9 these reserve sharing arrangements is ongoing pursuant to the provisions of the
10 Interconnection Operators Agreement, filed with the Board as PUB-NLH-220 Rev. 1
11 Attachment 7.