

CA/KPL-Nalcor-3
Muskrat Falls Review

Page 1 of 2

1 Q. Nalcor has provided a set of potential hydropower and wind resource supplies for
2 the Isolated Island Option.

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4 a. Please reference the documents outlining the comprehensive listing of
5 available Island resources and opportunities. Are the listed island
6 generation opportunities the only significant ones that can be considered?
7 Are there additional island hydro opportunities, non-listed?

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9 b. What is the time frame for major upgrades or refurbishment of
10 Newfoundland and Labrador Hydro's existing assets and are there any
11 opportunities to increase the installed capacity of existing infrastructure at
12 the same time?

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14 c. Similarly, are there any opportunities at Corner Brook Pulp and Paper and
15 Newfoundland Power Inc.?

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17 d. Is there room to increase the installed capacity of the existing on island
18 system to increase the amount of wind penetration? It was noted that
19 under the island scenario a continued increase in thermal capacity did not
20 seem to be accompanied by a larger wind penetration allowance.

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23 A. a. For a discussion of available Island hydropower and wind resources and
24 opportunities please see *Section 4.2.8 Wind and Section 4.2.12 Island Hydroelectric*
25 *(including Other Small Hydro starting on page 89)* of Nalcor's Submission to the
26 *Board of Commissioners of Public Utilities with respect to the Reference from the*
27 *Lieutenant-Governor in Council on the Muskrat Falls Project* November 10, 2011.

b. Opportunities to increase the installed capacity of existing infrastructure during major upgrades or refurbishment of Newfoundland and Labrador Hydro's existing assets are minimal. Unless allowed for in the original design of the facility, only minor increases would be technically possible. As these opportunities occur, they will be studied on an economic and technical basis.

c. The technical considerations associated with increasing and installing capacity at existing facilities of Corner Brook Pulp and Paper and Newfoundland Power Inc. are the same as those for NLH. NLH also expects these opportunities to be minimal.

d. As load increases, it is expected that there will be room to accommodate some additional wind generation on the existing Island Interconnected system. This has been addressed in Section 4.2.8 of Nalcor's Submission to the Board of Commissioners of Public Utilities with respect to the Reference from the Lieutenant-Governor in Council on the Muskrat Falls Project November 10, 2011. Nalcor has provided a sensitivity analysis for increased wind penetration and the result indicates that the Interconnected Island alternative remains the preferred option. The results of this sensitivity are provided in Section 7.2 of Nalcor's Submission.