

1 **Q. On page 10 of 2015 Capital Plan 3.2.2 Generation you indicate that “generation**
2 **capital expenditures will average approximately \$9.9 million per year from 2015**
3 **through 2019” or \$50 million. As you know, Hydro will have installed an additional**
4 **113 MW of generation by the end of this year so please explain why the ratepayers**
5 **of this Island should spend an additional \$50 million on your generation.**

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7 A. Newfoundland and Labrador Hydro’s (“Hydro”) 100 MW (nominal) combustion turbine
8 and Newfoundland Power’s 97.5 MW of hydro generation fill two different roles on the
9 Island Interconnected System.¹

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11 The 100 MW (nominal) combustion turbine being installed at Hydro’s Holyrood Thermal
12 Generating Station (“Holyrood”) is intended to fulfill 3 main functions, (i) additional
13 long term generation *capacity* for the Island Interconnected System, (ii) additional
14 generation *capacity* on the Avalon Peninsula to mitigate local generation supply and
15 transmission contingencies and (iii) replacement of the leased black start diesels installed
16 in 2014.²

17
18 Thermal generating plants, such as the 100 MW (nominal) combustion turbine have a
19 high cost of energy due to the requirement to consume expensive fuel. The avoided cost
20 of fuel at the existing Holyrood plant is currently 16.8¢ per kWh.³ The 100 MW
21 (nominal) combustion turbine being installed at Holyrood is also expected to have a high
22 cost of energy.⁴

23
24 Newfoundland Power’s 97.5 MW of hydro generation provides 430.5 GWh of low cost
25 *energy* to the Island Interconnected System throughout the year.⁵ The 2015 Capital
26 Budget Application proposes 3 capital projects related to the refurbishment of the
27 Company’s hydro generating assets. These projects include: (i) the Pierre’s Brook Hydro
28 Plant Penstock Replacement and Surge Tank project with a levelized cost of 4.87¢ per
29 kWh; (ii) the Tors Cove Plant Refurbishment project with a levelized cost of 2.77¢ per
30 kWh; and (iii) the Seal Cove Plant Refurbishment project with a levelized cost of 1.93¢
31 per kWh.⁶ These hydro plants also provide a capacity benefit for the Island
32 Interconnected System.

¹ Newfoundland Power also has 41.5 MW of thermal generating plants consisting of gas turbines and diesel units that are generally used to provide emergency generation, both locally and for the Island Interconnected System, and to facilitate scheduled maintenance.

² Application pursuant to section 41(3) of the Public Utilities Act for the Approval of a Capital Project to Supply and Install 100 MW (Nominal) of Combustion Turbine Generation, April 10, 2014 at page 14.

³ This is based upon a 630 kWh/barrel conversion efficiency and oil price forecast of \$105.60 per barrel for 2014 as per Hydro’s April 30th, 2014 letter to the Board regarding Rate Stabilization Plan – Fuel Price Projection.

⁴ Newfoundland Power requested information relating to the cost of energy from the 100MW (nominal) combustion turbine in the Request for Information GT-NP-NLH-006 as a part of Hydro’s Application for Approval of a Capital Project to Supply and Install 100 MW (Nominal) of Combustion Turbine Generation.

⁵ Schedule B page 2 of 97

⁶ See Tab 1.2 Pierre’s Brook Hydro Plant, Tab 1.3 Seal Cove Hydro Plant Refurbishment, and Tab 1.4 Tors Cove Hydro Plant Refurbishment.

1 Hydro's impending 100 MW (nominal) combustion turbine will provide expensive
2 energy to the Island Interconnected System during system peaks or system emergencies.
3 Newfoundland Power's hydro generating assets provide inexpensive energy to the Island
4 Interconnected System throughout the year, including during system peaks and
5 emergencies. Failing to invest in Newfoundland Power's hydro electric assets would
6 effectively mean replacing the inexpensive energy produced by those plants with more
7 expensive energy.⁷

⁷ Please see the Response to Request for Information NLH-NP-007 for further information on the benefits of Newfoundland Power's generation.