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September 4, 2013

VIA COURIER and ELECTRONIC MAIL

Board of Commissioners of Public Utilities
120 Torbay Road
P.O. Box 21040
St. John's, NL A1A 5B2

Attention: Ms. G. Cheryl Blundon
Board Secretary

Dear Ms. Blundon:

RE: Capital Budget Application of Newfoundland and Labrador Hydro

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Enclosed are eight (8) copies of Vale's first round of RFI's in respect of the Application.

We have provided a copy of this correspondence together with enclosures to all concerned parties.

We trust you will find the enclosed satisfactory.

Yours faithfully,

Thomas J. O'Reilly, Q.C.

TJOR/je
Encls.

cc. Newfoundland and Labrador Hydro
Hydro Place, 500 Columbus Drive
P.O. Box 12400, St. John's, NL
A1B 4K7
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Roebothan, McKay & Marshall
Barristers & Solicitors
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Attention: Colin Feltham

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Attention: Gregory Moores

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Corner Brook, NL A2H 6H7

Attention: Dean Porter

Sheryl Nisenbaum
Praxair Canada Inc.
1 City Center Drive
Suite 1200
Mississauga, ON L5B 1M2

IN THE MATTER OF the *Public Utilities Act*, (the "Act"): and

IN THE MATTER OF an Application by Newfoundland and Labrador Hydro for an Order approving: (1) its 2014 capital budget pursuant to s. 41(1) of the Act; (2) its 2014 capital purchases, and construction projects in excess of $50,000 pursuant to s. 41(3)(a) of the Act; (3) its leases in excess of $5,000 pursuant so s. 41(3)(b) of the Act; and (4) its estimated contributions in aid of construction for 2014 pursuant to s. 41(5) of the Act and for an order pursuant to s. 78 of the Act fixing and determining its average rate base for 2012.

REQUESTS FOR INFORMATION OF VALE NEWFOUNDLAND & LABRADOR LIMITED

V-NLH-1 to V-NLH-31

Issued September 4, 2013

V-NLH-1 Please explain in detail, the effect that capital expenditure (capex) has on rates. The response should include an explanation of the effect that each capex factor has on rates including, but not limited to, depreciation, return on debt, and return on equity.

V-NLH-2 Please explain how capex is (i) assigned to the various systems (island interconnected, Labrador interconnected, etc.) and (ii) within each system, allocated among classes of customers? The response to each of (i) and (ii) should include a discussion of capex for generation, transmission, distribution, administration, general equipment, mobile equipment, software and communication equipment.

V-NLH-3 Please provide the criteria that Hydro uses to differentiate between a capex and an operation or maintenance expense.

V-NLH-4 The table on page A3 of 2014 Capital Plan, Appendix A, Five-Year Capital Plan shows the forecast capex for the period 2014 – 2018. Using the same format, please provide the actuals for 2009-2012 and the current forecast for 2013.

V-NLH-5 Table H-1 of the Application shows that the actual capex in 2009 was $54 million and that the proposed capex for 2014 is over $151 million. Please explain the dramatic increase in capex over the five year period.

V-NLH-6 Section J, page 5 of the Application reads in part, "*Due to the accounting methodology changes approved under Board Order P.U. 13 (2012), major overhauls and inspections with a frequency of greater than one year are capitalized,.....*".

a) Please provide the forecasted increase in the capex budget and the decrease in maintenance expenditure as a result of this accounting change for each of the years 2013 and 2014.

b) By how much was the maintenance expense reduced in the July 30, 2013 general rate application (GRA) cost of service (COS) as a result of this accounting change?

V-NLH-7 Section K-1 of the Application is the rate base for 2012.

a) Please explain the connection, if any, between the approval of the 2014 capital budget and the approval of the 2012 rate.

b) At what point does an increase in rate base impact customers' rates?

V-NLH-8 Please provide the actual Holyrood capex for the years 2003 – 2012 and the forecast for 2013.

V-NLH-9 Please provide a table showing (i) the total Holyrood production, (ii) the Holyrood capacity factor and (iii) the total Holyrood production as a percentage of total island interconnected sales for each of the years 2000 to 2020. Use actuals where available and forecasted for the remainder.

V-NLH-10 For each of the years 2000 – 2020, please provide the actual or forecast hours of operation for Holyrood units No 1, No. 2, No. 3 (generator mode) and No. 3 (synchronous condenser mode).

V-NLH-11 The response to request for information (RFI) PUB-Nalcor-77 from the 2012 Muskrat Falls Review states that first power is expected from the Muskrat Falls Project in late 2016 and full power in mid-2017. Please:

a) Supply a copy of this RFI for the record.
b) Confirm that these are the dates that Hydro is using for capex decisions.

V-NLH-12 For the record, please supply any evidence that any party (i.e. Nalcor) or consultant (i.e. Manitoba Hydro International) submitted during the 2012 Muskrat Falls Review that would suggest that the power supply from Muskrat Falls would not be reliable until 2021.

V-NLH-13 Please supply the criteria that Hydro used in making the decision to propose that Holyrood be kept in standby mode until 2021.

V-NLH-14 In the report, "Holyrood Overview – Future Operations and Capital Expenditure Requirements, July 2013" page 6, "Phase 2 – Standby Production Phase", it is indicated that the standby production phase would be necessary until 2020-2021 to supply energy or capacity to the island in event of a loss of supply from Labrador. On what basis does Hydro suspect that there is a greater probability of a loss during the first three years of operation than in a later time frame?

V-NLH-15 How many generating units at Muskrat Falls are required to equal the total output of Holyrood?

V-NLH-16 Please supply a copy of the purchase power agreement (PPA) between Hydro and Nalcor for the purchase of power from Muskrat Falls. Does the pricing in the early years of the PPA take account a lesser degree of reliability in Muskrat Falls Power as suggested by the stated requirement to maintain Holyrood at standby production until 2020-2021?

V-NLH-17 to V-NLH-19 relate to the project: Holyrood – Overhaul Turbine/Generator Unit 2 - $5,147,000

V-NLH-17 Table 1 on page 8 of the Report to the PUB entitled "*Overhaul Steam Turbine Generator – Unit 2, Holyrood, June 2013*" indicates that the capacity factor (CF) for Holyrood will be between 50% and 100% from 2014 through 2017. It states further that from 2018 through 2020, the CF will be between 30% and 75%.

a) Please reconcile the above projection of CF from 2014 through 2017 with the 2013 Test Year Cost of Service submitted with Hydro's GRA, which indicates that the average CF for the years 2008 through 2012 was 22.34% (Source: Sch. 4.3, p 108 of 109 of the GRA)
b) Please reconcile the above projection of CF from 2014 through 2017 with bullet 1 on page 3 of the report to the PUB entitled "*Condition Assessment and Life Extension, Holyrood, June 2013*" which states "*Holyrood will be required to continue*

operating as a thermal generating station at a capacity factor between 30 percent and 75 percent until 2017".

c) Please reconcile the above projection of CF from 2018 through 2020 with the total Holyrood output of 20 gWh per year stated on page 4 of the report to the PUB "*Holyrood Overview, Future Operations and Capital Expenditure requirements, July 2013*".

V-NLH-18 The last paragraph on page 6 of the Report to the PUB entitled "*Overhaul Steam Turbine Generator – Unit 2, Holyrood, June 2013*" states that seven starts per year is higher than the industrial normal.

a) Please provide the industrial normal and the source for this information?

b) Is the number of starts more of a determining factor for the generator overhaul schedule than for the turbine?

V-NLH-19 Section 3 on page 7 of the Report to the PUB entitled "*Overhaul Steam Turbine Generator – Unit 2, Holyrood, June 2013*" states that "*Holyrood supplies approximately 33 percent of the Island Interconnected System's capacity .....*". Please show the calculation used to determine this percentage.

V-NLH-20 **Project: Holyrood - Complete Condition Assessment Phase 2 – $1,476,000**

Reference: Report to the PUB, "*Condition Assessment and Life Extension, Holyrood, June 2013*"

a) In the report summary it states that "*This project is the third year of a level 2 condition assessment study of the Holyrood Thermal Generating Station .....*". The previous two years were prior to the approval of the Muskrat Falls Generation project. Now, with Muskrat Falls fully approved and scheduled to be at full production by mid-2017, please explain the rationale for completing the condition assessment.

b) Page 3 of the Report states "*However, Unit 2's generator inspection will take place under this project*". Please confirm that the cost for the generator inspection is not also included in the project to overhaul Turbine/Generator Unit 2.

V-NLH-21 **Project: Holyrood – Upgrade Excitation Systems Units 1 and 2 – $1,110,000**

Reference: Report to the PUB, "*Upgrade Excitation Systems Unit 1 and 2, Holyrood, May 2013*"

a) Table 1 on page 4 lists 15 spare parts which would be replaced with the proposed upgrade. Since installation, what has been the consumption for each of these 15 parts?

b) There are two combined I/O in stock and the safety level is zero. What is the cost to purchase an extra set of the other 14 items?

c) Section 3.2.5 on page 5 states that utilities in Indiana and Washington have upgraded from the Unitrol P. Do these utilities have any spare parts or spare units?

V-NLH-22 **Project: Holyrood – Upgrade Vibration Monitoring System - $524,900**

Reference: Report to the PUB, *"Upgrade Unit Vibration Monitoring System, Holyrood, June 2013"*

a) The project description on page C-26 of the Application states that the synchronous condensing part of the plant will be upgraded. The report appears to indicate that all three generators will be upgraded. Please confirm the extent of the upgrade.

b) If this project includes upgrading all three generators, please explain the rationale for not considering the option of upgrading the generator on Unit 3 only.

V-NLH-23 **Project: Holyrood – Upgrade Plant Elevators - $533,200**

Reference: Report to the PUB, *"Upgrade Plant Elevators, Holyrood, June 2013"*

a) What is the elevation difference between the two floors for the administration elevator?

b) Many two story buildings in Newfoundland and Labrador do not have elevators. Please explain the reason(s) for not considering taking this elevator out of service permanently.

V-NLH-24 **Project: Holyrood - Replace Economizer Inlet Valves – $521,100**

Reference: Report to the PUB, *"Replace Economizer Inlet Valves – Units 1 and 2, Holyrood, April 2013"*

In section 3.2 of the report it states that unit 1's economizer valve has been inoperable since 2007 and unit 2's economizer valve was repaired using the Furmanite process in 2010. Section 4.2 of the report shows that the installation of the two new valves is scheduled for 2015. This is two winter seasons prior to Muskrat Falls being in full production.

a) Please explain the rationale for replacing unit 1's economizer valve for two years of operation after using it in a seized state for eight years.

b) Please explain the rationale for replacing unit 2's economizer

valve for two years of operation after using it in a repaired state for five years.

V-NLH-25

Project: Holyrood – Install Cold-Reheat Condensate Drains and High Pressure Heater Trip Level Unit 3 – $517,200

Reference: Report to the PUB, "*Install Cold-Reheat Condensate Drains and High Pressure Heater Trip level Unit 3, Holyrood, July 2013*"

The second paragraph on page C-31 of the applications says that the recommended time interval for testing the condensate level switches on the high pressure heaters is three months. With Holyrood generation only being required during the winter months, what is the best time interval for testing that can be achieved with the current piping arrangement?

V-NLH-26

Project: Holyrood – Overhaul Extraction Pump South Unit 1 – $96,800

References: Application page E-88 and E-95

According to the above referenced pages, only one of the two installed extraction pumps is required for the operation of unit 1. Further, the north extraction pump was overhauled in 2012. Instead of overhauling the south pump, please explain Hydro's rationale for not preferentially running the north pump and only using the south pump when required.

V-NLH-27

Project: Holyrood – Replace DC Distribution Panels and Breakers – $174,200

Reference: Application pages E-66 to E-68

a) The Project Justification on page E-67 discusses the failure of unit 1 on January 11, 2013. Please describe the root cause for a lack of lubricating oil to unit 1.

b) Please explain the connection between the DC distribution panels and breakers and the lubrication failure on January 11, 2013.

c) Please list the spare circuit breakers available in Hydro stock.

d) Please explain the rationale for Hydro not proposing to replace the panels for one unit and keep the removed panel as a spare.

V-NLH-28

Project: Holyrood – Install Fire Protection Upgrades – $369,100

Reference: Application pages D-76 to D-97

The Project Description on page D-76 describes three separate fire protection upgrades, (1) install concrete curbing, (2) install automatic fuel shut-off valve and (3) apply fire proofing to the pipe supports.

a) Please list the project cost for each of these three upgrades.

b) From a fire protection point of view, please list these upgrades in priority.

c) Appendix A (page D-81) indicates that FM Global made these recommendations during and/or following a site inspection on August 24, 2011. Did FM Global make any of these recommendations prior to August 24, 2011 and, if so, please provide the dates.

V-NLH-29 **Project: Holyrood – Add Nominal 60 MW Gas Turbine – $99,444,600**

Page A8 of the Application indicates a capital plan project of nearly $100 million to add a 60 mW gas turbine.

a) When the Muskrat Falls generating station is in full operation, will this turbine be required to maintain the loss of load hours (LOLH) below the 2.8 criteria?

b) Please summarize all discussions that Hydro has had with industrial and other customers to determine if all or part of this capex can be eliminated through the use of interruptible power contracts.

V-NLH-30 **Project: St. Anthony – Replace Excavator – $110,000**

Please confirm that this capex is allocated solely to the interconnected rural customer class.

V-NLH-31 **Project: Bishop Falls – Purchase Track Mounted Backyard Radial Boom Derrick – $158,700**

As the justification for the purchase and the listed uses are all for rural areas, please confirm that this capex is allocated solely to interconnected rural customer class.

DATED at St. John's, in the Province of Newfoundland and Labrador, this 4th day of September, 2013.

COX & PALMER

Per: _____

Thomas J. O'Reilly, Q.C.

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TO: Praxair Canada Inc.
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Attention: Sheryl Nisenbaum,
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