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HAND DELIVERED

March 9, 2016

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

Attention: G. Cheryl Blundon
Director of Corporate Services
and Board Secretary

Ladies and Gentlemen:

Re: Newfoundland and Labrador Hydro - Application for Approval of the Procurement of 12 MW of Diesel Generation at Holyrood (dated February 22, 2016) – Requests for Information

Please find enclosed the original and 12 copies of Newfoundland Power's Requests for Information DG-NP-NLH-001 to DG-NP-NLH-013 in relation to the above noted Application.

For convenience, the Requests for Information are provided on three-hole punched paper.

A copy of this letter, together with enclosures, has been forwarded directly to the parties listed below.

If you have any questions regarding the enclosed, please contact the undersigned at your convenience.

Yours very truly,

A handwritten signature in black ink, appearing to read "Gerard Hayes".

Gerard Hayes
Senior Counsel

Enclosures

Newfoundland Power Inc.

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IN THE MATTER OF the *Electric Power Control Act*, RSNL 1994, Chapter E-5.1 (the *EPCA*) and the *Public Utilities Act*, RSNL 1990, Chapter P-47 (the "*Act*"), and regulations thereunder;

IN THE MATTER OF a revised Application by Newfoundland and Labrador Hydro (Hydro) pursuant to Subsection 41 (3) of the Act; for approval of the procurement of 12 MW of diesel generation at Holyrood.

**Requests for Information by
Newfoundland Power Inc.**

DG-NP-NLH-001 to DG-NP-NLH-013

March 9th, 2016

Requests for Information

DG-NP-NLH-001 Reference: *Purchase 12MW of Diesel Generation (Revised)*, Page 1, Lines 8-15.

“As part of these reviews and in light of recent events in the supply of electricity on the system, Hydro has considered the following items in its provision of reliable electricity supply:

- 1. There is a risk of a shortfall of capacity for customers on the Avalon Peninsula due to customers forecasted needs on the Avalon;*
- 2. There has been an increase in availability concerns regarding Hydro’s thermal generating units increasing the risk of a capacity shortfall; and*
- 3. There is currently a material reduction in water available to Hydro for hydraulic generation.”*

Is the increase *in availability concerns regarding Hydro’s thermal generating units* identified in item 2 related to the boiler tube failures experienced in early 2016 at the Holyrood Thermal Generating Station? If so, are the availability concerns regarding Hydro’s thermal generating units expected to be resolved by the boiler repairs in the summer of 2016?

DG-NP-NLH-002 Reference: *Purchase 12MW of Diesel Generation (Revised)*, Page 1, Lines 8-15.

“As part of these reviews and in light of recent events in the supply of electricity on the system, Hydro has considered the following items in its provision of reliable electricity supply:

- 1. There is a risk of a shortfall of capacity for customers on the Avalon Peninsula due to customers forecasted needs on the Avalon;*
- 2. There has been an increase in availability concerns regarding Hydro’s thermal generating units increasing the risk of a capacity shortfall; and*
- 3. There is currently a material reduction in water available to Hydro for hydraulic generation.”*

The *Bi-weekly Energy Supply Report for the Island Interconnected System for the Period Ending February 25, 2016* submitted by Hydro on March 2, 2016, states, at page 3: *“On February 26, 2016, in conjunction with VISTA’s recommendations, Hydro suspended the use of standby generation for water management considerations while continuing to maximize Holyrood.”* In light of the VISTA recommendation of February 26, 2016, does Hydro still consider the “material reduction in water available to Hydro for hydraulic generation” a justification for the purchase of the 12 MW of diesel generation?

DG-NP-NLH-003 Reference: *Purchase 12MW of Diesel Generation (Revised)*, Page 2, Lines 3-6.

“Hydro issued its most recent Generation Adequacy Report in September of 2015. The analysis introduced new generation planning criteria that generation capacity must be sufficient to maintain a reserve of at least 240 MW based on a P90 peak load forecast for the Island Interconnected System.”

What is Hydro’s forecast reserve margin for the winter of 2016-2017 and the winter of 2017-2018 based on a P90 forecast and will the minimum 240 MW reserve margin be violated in either winter?

DG-NP-NLH-004 Reference: *Purchase 12MW of Diesel Generation (Revised)*, Page 7, Lines 23-25.

“The analyses included an assessment of the worst case contingency, which involves the loss of transmission line TL202 or TL206 between Bay d’Espoir Terminal Station and Sunnyside Terminal Station. Further detail relating to this load flow analysis is provided in Appendix A.”

How does the planned completion of the 3rd 230kV transmission line from Bay D’Espoir to Western Avalon in 2018 impact the analysis of the worst case contingency, and what impact will that have on the future operation of the Holyrood Diesel Generators?

DG-NP-NLH-005 Reference: *Purchase 12MW of Diesel Generation (Revised)*, Appendix B, Page B-1.

Please update the table on page B-1 of Appendix B that lists the Dispatch of Holyrood Diesel Generators to include the period December 24, 2015 to March 9, 2016. In the response, please include the average output (MW) for the diesel generators for each occasion they were operated.

DG-NP-NLH-006 Reference: *Purchase 12MW of Diesel Generation (Revised)*, Appendix B, Page B-1.

Absent the requirement for maintaining reserve margins on the Avalon Peninsula, on any of the 20 occasions identified in Appendix B, page B-1, did Hydro operate the 12 MW of diesel generation due to low hydrology?

DG-NP-NLH-007 Reference: *Purchase 12 MW of Diesel Generation (Revised)*, Page 11, Lines 23-24

“In addition to reserve support, they are required to be run in response to the 2016 low Hydrology scenario.”

What is the dispatch order for Hydro’s thermal generation (black start diesel generators, other diesel generators, Hardwoods GT, Stephenville GT, Holyrood CT and the Holyrood thermal generating station) when operating these units for the 2016 low Hydrology scenario?

DG-NP-NLH-008 Reference: *Purchase 12MW of Diesel Generation (Revised)*, Page 13, Lines 17-22.

“There are currently eight 2 MW diesels being leased at Holyrood. The decision has been made to end the leases on two diesels. When the fleet of diesels was initially installed, analysis showed that eight diesels would be required to do successful black start. Subsequent testing, as documented in Appendix D, has confirmed that the black start can be completed with only five diesel units operating. As a result, six diesels (five plus an additional unit for redundancy and therefore reliability) are adequate to provide reliable black start.”

When will Hydro stop paying to lease the 2 additional diesel generators that are not required to black start the Holyrood thermal generating station?

DG-NP-NLH-009 Reference: *Purchase 12MW of Diesel Generation (Revised)*, Page 14, Line 28 to Page 15 Line 2.

“While 80% of all lease payments made to date with respect to the units proposed to be purchased would qualify under this provision to reduce the end-of-lease purchase price, Hydro is seeking the deferral and recovery of 80% of the lease payments for six of the eight diesel units made since July of 2015 to April 2016.”

Why is Hydro not seeking deferral and recovery of 80% of the lease payments prior to July 2015?

DG-NP-NLH-010 Reference: *Purchase 12MW of Diesel Generation (Revised)*, Page 15, Lines 2-3.

“These would be applied as a reduction to the purchase price under the agreement with the supplier in the amount of \$1.3 million.”

In the response to Request for Information NP-NLH-028 of the original application, page 2 of 2, Hydro states that the 80% credit applied against purchase is \$4,608,000. Please explain the difference in the credit amounts of \$4.6 million and \$1.3 million.

DG-NP-NLH-011 Reference: *Purchase 12MW of Diesel Generation (Revised)*, Page 15, Line 6.

“Hydro is seeking approval of \$6.3 million...”

Please provide a detailed breakdown including all costs and credits that comprise the \$6.3 million total amount for which Hydro is seeking approval.

DG-NP-NLH-012 Reference: *Bi-weekly Energy Supply Report for the Island Interconnected System for the Period Ending February 25, 2016* submitted by Hydro on March 2, 2016, Page 5, Lines 22-23 to Page 6, Line 2.

“Hydro is also currently experiencing a derating at the Hardwoods gas turbine to 38 MW (from 50 MW). ... Hydro expects that the original engine will be installed again by fall 2016...”

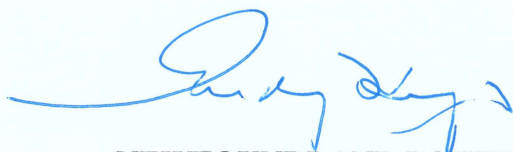
In the response to Request for Information NP-NLH-020 (Revision 1, January 11-16) of the original Application, Hydro identified the derating of the Hardwoods Gas Turbine as reducing the opportunity to operate the diesel generators to reduce the operation of the Holyrood CT. Does the derating of the Hardwoods Gas Turbine through to the fall of 2016 reduce the opportunity to utilize the diesel generators to reduce operation of the Holyrood CT? If so, what is the impact on the stated 2016 fuel saving of \$0.73 million referred to in the report *Purchase 12MW of Diesel Generation (Revised)*, Page 12, Line 5?

DG-NP-NLH-013 Reference: *Purchase 12MW of Diesel Generation (Revised)*, Appendix C, Page C-1 Lines 12-15

“An analysis was completed which indicates that there is a potential fuel savings for the IIS if the black start diesels are part of dispatch order for Avalon reliability prior to the start-up of the Holyrood CT. This would mean fewer starts for the CT and less run time, as the diesels could be started before the CT.”

Please provide a table showing the number of times the black start diesels have been started prior to the start-up of the Holyrood CT or the Hardwoods GT, including the estimated fuel savings for each instance.

RESPECTFULLY SUBMITTED at St. John's, Newfoundland and Labrador, this 9th day of March, 2016.



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