IN THE MATTER OF the *Public Utilities Act*, R.S.N.L., c.P-47 (the "Act"); and

IN THE MATTER OF an Application by Newfoundland and Labrador Hydro for an Order approving: (1) its 2012 capital budget pursuant to s. 41(1) of the Act; (2) its 2012 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 to s. 41 (3) (b) of the Act; and (4) its estimated contributions in aid of construction for 2012 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 2010.

To: Board of Commissioners of Public Utilities

Suite E210, Prince Charles Building
120 Torbay Road
P.O. Box 12040
St. John's, NL A1A 5B2
Attention: Ms. G. Cheryl Blundon,
Director of Corporate Services and Board Secretary

Unit 1 and Unit 2 Generator Stator Rewind

P2-CA-NLH-01 Re: Unit 1 and Unit 2 Generator Stator Rewind (Tab 2)

Please provide the justification for proceeding with this project at this time given AMEC's "Recommended Actions" found at page 8-6 of the Holyrood Thermal Generating Station Condition Assessment & Life Extension Study.

P2-CA-NLH-02 Re: Unit 1 and Unit 2 Generator Stator Rewind (Tab 2)

At page 21, please provide the basis for assuming a 30 percent risk of stator winding failure and the basis for a 10 percent increase year to year. Have these assumptions taken into account AMEC's recommendation of a "bump" test if no winding takes place? If this bump test was completed, would there be a corresponding reduction in the associated risk of failure on a go-forward basis?

P2-CA-NLH-03 Re: Unit 1 and Unit 2 Generator Stator Rewind (Tab 2)

At Appendix E, at page E-4, the following is noted, "GE TIL 1292 recommends inspection of the rotor dovetails and another TIL requires checking the rotor slot wedges for cracks." AMEC outlines that there is no record of this work being completed in the GE inspections of 1999 or 2005. Please explain why these recommendations were not completed by GE during the said inspections.

Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station

P2-CA-NLH-04 Re: Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station (Tab 3)

At page 4, reference is made to there being only 8 years until the planned infeed. Given the short time frame, what is the need for these repairs at this time?

P2-CA-NLH-05 Re: Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station (Tab 3)

At page 12, reference is made to an engineering consultant looking for the cause of a 70 ton concrete gravity fender falling from the Marine Terminal superstructure. Please provide a copy of this report.

P2-CA-NLH-06 Re: Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station (Tab 3)

At page 13, reference is made to solidified oil posing a serious environmental concern if a blockage occurs restricting the flow of the fuel oil and exposing the lines to damaging pressure levels. Has there been any blockages in the last 10 years? If so, please elaborate.

P2-CA-NLH-07 Re: Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station (Tab 3)

At Appendix B, page B-7, Hatch notes that, "In the last number of years there have been a number of protest letters from the incoming vessels on the condition of structure and the fuel offloading system." Please provide copies of these protest letters referred to by Hatch.

P2-CA-NLH-08 Re: Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station (Tab 3)

At Appendix B, page B-14, section 3.2.1, please provide a copy of the 1988 Shawmont Letter Report referred to by Hatch.

P2-CA-NLH-09 Re: Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station (Tab 3)

At Appendix B, page B-15, section 3.3, "Breasting Fender Spacing", Hatch notes that the breasting system was designed and constructed to accommodate 35,000 DWT tankers that would engage 4 of the 8 gravity fenders. It also notes that the records indicate all ships docking at the facility in 2009 and 2010 were near the ideal length for the existing Jetty. For the 2009-2010 years, please outline the number of tanker dockings that were beyond the 35,000 DWT maximum that the Jetty was constructed for. Also, please provide the number of tanker dockers that were beyond the 35,000 DWT for 2011.

P2-CA-NLH-10 Re: Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station (Tab 3)

At page B-23 of Appendix B, it is outlined that issues with connecting and disconnecting the lines from the ship can be dealt with by the ship taking on ballast water. It is noted that taking on ballast water can be problematic because of the cooling consequences and increase in the viscosity of the fuel being transferred. Will this concern be ameliorated with Hydro's application to replace the entirety of the fuel oil heat tracing at the Holyrood Thermal Generating Station?

P2-CA-NLH-11 Re: Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station (Tab 3)

At page B-24, Appendix B, Hatch makes reference to a requisition which was forwarded to the loading arm manufacturer presently known as Emco Wheaton, along with a response. Please provide copies of this requisition and response from Emco Wheaton.

P2-CA-NLH-12 Re: Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station (Tab 3)

At page B-27, Appendix B, regarding "Inspection", Hatch recommends a detailed inspection of the metal thickness of the jetty piles. Has this inspection been completed? Is it scheduled to be completed?

P2-CA-NLH-13 Re: Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station (Tab 3)

At page B-79, reference is made to a 2004 Crotty Diving Services visual inspection of each pile and anode on both the jetty head and shore arm. Have any updates to this report or inspections been completed?

P2-CA-NLH-14 Re: Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station (Tab 3)

At page C-4 of Appendix C, various situations including poor weather and arctic ice are outlined as circumstances in which Hydro may not pre boom tankers unloading at the Holyrood facility. Please provide

instances over the last 10 years during which there was not a pre boom of tankers prior to unloading at the Holyrood facility.

P2-CA-NLH-15 Re: Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station (Tab 3)

What is the time required for connection and disconnection with a 16 inch flange?

P2-CA-NLH-16 Re: Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station (Tab 3)

At Appendix C, Tab 4 at p. C-7, the times for connecting and disconnecting the loading arms are outlined for an oil delivery in February 2011. The times appear to be less than the 3 hours outlined by Hydro at page 3 of Tab 3. Please provide confirmation that connection and disconnection does require 3 hours each as stated.

Replace Fuel Oil Heat Tracing

P2-CA-NLH-17 Re: Replace Fuel Oil Heat Tracing (Tab 4)

At page 4, Hydro references discussions with the original equipment manufacturer Tyco Thermal Controls, who manufactured the existing heat tracing system. It is noted that based on these discussions it is anticipated that the existing copper heat tracing cable would need to be replaced with a stainless steel heat tracing cable. Did Tyco put the recommendation in writing? Has this recommendation been confirmed?

P2-CA-NLH-18 Re: Replace Fuel Oil Heat Tracing (Tab 4)

At pages 7 and 11 reference is made to repetitive failures of the existing heat tracing cables from 2004 to 2011. Please provide a listing of all of the failures from 2004 to 2011, the down time along with the cost of the repairs.

P2-CA-NLH-19 Re: Replace Fuel Oil Heat Tracing (Tab 4)

At section 3.12, it is noted that the heat tracing is in continuous operation for fear that the system will not restart if shut down. With the proposed installation of the new heat tracing system, it is anticipated that the system can be switched off during the summer months through the installation of a programmable controller which will reduce the total power consumed by approximately 50 percent of the existing system. Please provide the basis for assuming that there will be an approximate 50 percent reduction of total power consumed by switching off the new system during the summer months.

HRD - Install Operator Training Simulator

P2-CA-NLH-20 Re: HRD - Install Operator Training Simulator (Tab 5)

At page 6, Hydro outlines that the current testing and training takes place over a period of two years, but with the training simulator, training time will be reduced to 6 months. Has any research been completed into

the quality of the training that a candidate will receive given the significant decrease in actual training time?

P2-CA-NLH-21 Re: HRD - Install Operator Training Simulator (Tab 5)

At page 6, Hydro outlines that 228 tasks are currently performed directly on the unit control board. A training simulator would allow the employee or trainee to perform these tasks "...without having to wait for the availability of a console and to perform such tasks without placing any risk on actual equipment or inadvertently causing an outage." Section 3.5 at page 8 indicates that there have been no outages attributed to the operator training program. Please provide all incidents in the past 10 years where equipment was damaged by trainees using the unit control board.

P2-CA-NLH-22 Re: HRD - Install Operator Training Simulator (Tab 5)

Please provide the basis for anticipating that, ". . . the time it takes to bring a unit online would decrease to the optimal duration of two days for a cold unit and four days for a cold plant by using an OTS to practice unit starting procedures" as indicated on page 13.

P2-CA-NLH-23 Re: HRD - Install Operator Training Simulator (Tab 5)

Please provide the cold start costs for 2006 through 2010. Please provide what the "optimal" costs of a cold start are and how the optimal starting costs were determined.

P2-CA-NLH-24 Re: HRD - Install Operator Training Simulator (Tab 5)

At page 14, reference is made to a conversation with a representative from Intermountain Power, a coal fired plant in Utah, that had an OTS in operation since 2005. It is stated that Intermountain realized a reduction of approximately 50 percent of unit trips caused by operators. Please provide the basis for concluding that the experiences in Utah are applicable to Newfoundland and Labrador, and that the equipment is similar to that in Holyrood. Please provide the trips caused by operators at the Holyrood plant over the past ten years, the duration of same and the steps to rectify.

P2-CA-NLH-25 Re: HRD - Install Operator Training Simulator (Tab 5)

Given the limited time line remaining for Holyrood, why was a cost benefit analysis not performed on this project?

P2-CA-NLH-26 Re: HRD - Install Operator Training Simulator (Tab 5)

AMEC undertook a detailed Condition Assessment and Life Extension Study dated January 28, 2011 previously filed. At page 55, section 5.2.1, the following is noted:

"Holyrood operates as a seasonal base loaded plant between November and April and tends to either on or off and generally operates between 70 and 130 MW. It has few starts per unit per year, typically less than twelve. As a result, the plant operators see a fair bit of operating time and at least some starts and stops as a component of their on the job training.

The station also runs training programs periodically on issues that may arise during operation. It is thought that some 'what do you do if this happens', and 'why is it done that way' scenario training might be useful. Otherwise, the training program for all plant staff seems consistent with other thermal generating facilities." (emphasis added)

Please confirm that Hydro's training program for all plant staff is consistent with other thermal generating facilities as reported by AMEC.

Holyrood: Upgrade Unit 2 Stack Breeching

P2-CA-NLH-27 Re: Holyrood: Upgrade Unit 2 Stack Breeching (Tab 7)

At page 15, section "Stack Breeching Ducts", a 2010 testing for thickness revealed material loss up to 30 percent. Why is this minimal loss considered grounds for repairing the Stack Breeching in circumstances when the conditions which are said to have caused the loss (p. 15) have ceased?

P2-CA-NLH-28 Re: Holyrood: Upgrade Unit 2 Stack Breeching (Tab 7)

Explain the basis for assuming a 4 week forced outage being experienced from a complete failure of the breeching support structure in the near future in Alternative 4 at page 19.

P2-CA-NLH-29 Re: Holyrood: Upgrade Unit 2 Stack Breeching (Tab 7)

With respect to the budget Estimate at Section 5.1, please provide the project costs for each element or aspect of the work which Hydro is proposing to undertake in this overall project, eg. refurbishing steel casing, work on East Support Structure, work on West Support Structure, insulation of breeching externally, ice protection shelters, etc.

P2-CA-NLH-30 Re: Holyrood: Upgrade Unit 2 Stack Breeching (Tab 7)

With respect to the Board's statement in P.U. No. 38 (2010) at p. 10, "Hydro has not shown, however, that the 'long term' solution is appropriate in the circumstances. Hydro has not shown that insulation problems have a reasonable or any potential to cause the worst case scenario of a forced outage." Where, specifically, in the materials filed in support of this present Application does Hydro show that insulation problems have a reasonable or any potential to cause the worst case scenario of a forced outage?

DATED at St. John's, in the Province of Newfoundland and Labrador, this 21st day of September, 2011.

Thomas Johnson
Consumer Advocate
323 Duckworth Street
St. John's, NL A1C 5X4
Telephone: (709)726-3524
Facsimile: (709)726-9600
Email: tjohnson@odeaearle.nf.ca