NEWFOUNDLAND AND LABRADOR
BOARD OF COMMISSIONERS OF PUBLIC UTILITIES
120 Torbay Road, P.O. Box 21040, St. John's, Newfoundland and Labrador, Canada, A1A 5B2

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2014-09-03

Mr. Geoffrey Young
Senior Legal Counsel
Newfoundland and Labrador Hydro
P.O. Box 12400
St. John's, NL A1B 4K7

Dear Mr. Young:

Re: Newfoundland and Labrador Hydro – 2015 Capital Budget Application – Requests for Information

Enclosed are Information Requests PUB-NLH-1 to PUB-NLH-42 regarding the above noted application.

If you have any questions, please do not hesitate to contact the Board's Legal Counsel, Ms. Jacqui Glynn, by email, jgylnn@pub.nl.ca or telephone, (709) 726-6781.

Yours truly,
Cheryl Blundon
Board Secretary

/cpj
Encl.

cc. **Newfoundland Power Inc.**
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IN THE MATTER OF
the *Electrical Power Control Act, 1994*,
SNL 1994, Chapter E-5.1 (the "*EPCA*")
and the *Public Utilities Act,* RSNL 1990,
Chapter P-47 (the "*Act*"), as amended, and
regulations thereunder; and

IN THE MATTER OF
an Application by Newfoundland and Labrador Hydro
for an Order approving:

1) its 2015 capital budget pursuant to s.41(1) of the *Act*;
2) its 2015 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*;
4) its estimated contributions in aid of construction for 2015 pursuant to s.41(5) of the *Act*.

PUBLIC UTILITIES BOARD
REQUESTS FOR INFORMATION

PUB-NLH-1 to PUB-NLH-42

Issued: September 3, 2014

General

PUB-NLH-1 Load growth in the isolated communities necessitating capital expenditures appears to be related to the installation of electric heat. In light of the subsidy being paid by other customers has Hydro had discussions with government relating to the use of electricity as a heating source in isolated diesel communities?

Volume I, Tab 2015 Capital Plan, Appendix A, page A2

PUB-NLH-2 In its Capital Plan Hydro anticipates capital expenditures for 2015 of $274,249,300. Please provide details of the challenges this presents from a resource perspective and how Hydro intends to overcome these challenges.

Volume I, Tab Holyrood Overview, page 6: Hydro states that: ***"Initially and until the 2020-2021 timeframe, the plant will function as a fully capable standby facility during the early years of operation of the Muskrat Falls Generating Plant and the LIL between Labrador and Newfoundland. In this capacity, it can be called upon to provide energy and capacity to the Island in the event of a loss of supply from Labrador."***

PUB-NLH-3 Further to the response to PUB-NLH-2 filed with Hydro's 2014 Capital Budget Application, has a plan now been developed with regard to how the Holyrood plant will be operated as a standby facility? If yes, please provide a copy. If no, when is the availability of this plan anticipated?

PUB-NLH-4 How long will it take to convert the Holyrood plant from a standby facility to a generating facility?

C-5; Volume I, Tab 2: Replace Interior Coating on Surge Tank 3. On page 4 Hydro states: ***"In particular, the interior coating on the riser is in a deteriorated condition with corrosion evident. A complete coating failure on the interior of the surge tank has left the metal exposed and corroded."*** **However, on page A8 the Hatch report states:** ***"The internal inspection revealed that the coating system on the interior of the tank roof, shell, bowl and riser is in good condition with some minor localized breakdown."***

PUB-NLH-5 Please explain how Hydro determined that a complete interior coating failure had occurred which requires refurbishment of all interior surfaces.

PUB-NLH-6 Has Hydro evaluated other options, such as refurbishing localized areas of coating breakdown?

Recommendation #2 on page A9 the Hatch report states: ***"Complete a detailed assessment of the tank interior coating system with a certified NACE inspector within the next two years. Implement a program whereby a detailed inspection of the tank interior coating system is performed every four to six years, coordinating with planned unit outages. During each***

assessment, refurbish localized areas of coating breakdown on the interior of the tank shell, bowl and riser and apply a compatible coating system."

PUB-NLH-7 Has Hydro completed a detailed assessment of the interior coating system with a certified NACE inspector? If yes, please provide a copy of assessment report. If no, why not?

PUB-NLH-8 How will Hydro address the recommendation that a detailed inspection program be implemented and performed every four to six years, coordinating with planned unit outages?

In response to PUB-NLH-11 filed with the 2014 Capital Budget Application Hydro states: "*Hydro will address the recommendation to remove the existing CP system and all associated components as part of the scope of work for a separate capital project which is in the capital plan for 2015 under the heading "Refurbish Surge Tanks – Bay d'Espoir.*"

PUB-NLH-9 Please provide an update regarding the removal of the Cathodic Protection System and associated components for Surge Tank 3.

C-7; Volume I, Tab 3: Overhaul Turbine Valves Unit 1 – Holyrood

PUB-NLH-10 On page 10, **Table 4: Overhaul Maintenance History** shows valve overhauls in 2009 and 2006 costing $607,000 and $483,000 respectively. Please provide details on why the proposed valve project for 2015 is budgeted at $1,577,500, an approximate 160% increase from 2009.

C-9; Volume I, Tab 4: Rehabilitate Salmon River Spillway – Bay d'Espoir

PUB-NLH-11 How does Hydro intend to address the recommendation on page A25 of the Hatch report concerning investigation of the requirement to install gate heating systems on Spillway gates 1 and 3?

PUB-NLH-12 Please provide a detailed map of the Bay d'Espoir watershed area showing all control structures, spillways, dykes, dams, etc.

C-11; Volume I, Tab 5: Upgrade Powerhouse Roofing – Holyrood

PUB-NLH-13 Please provide a legible copy of Appendix A **Table 4 - Condition Summary and Risk Assessment.**

C-15; Volume II, Tab 7: Upgrade Access Road – Cat Arm

PUB-NLH-14 Does Hydro have an established criteria for assessing the condition of roads? If yes, please provide. If no, how does Hydro provide consistency in road evaluations?

C-19; Tab 9: Upgrade Generator Bearings Units 1 and 3 – Bay d'Espoir

PUB-NLH-15 Please provide an update of the work to be completed in 2014 within this program as approved in Board Order No. P.U. 4(2013).

C-21; Volume II, Tab 10: Automate Generator Deluge Systems – Bay d'Espoir, page 6, Hydro states: "*In 2010 during the rewind of Unit 2, it was noted that the sprinkler ring in the deluge system did not have proper holes drilled in the pipe ring to discharge water.*" Hydro also states: "*There is a concern that this condition may exist in other units, and to inspect this sprinkler ring the generating unit will be required to be partially dismantled.*"

PUB-NLH-16 Please provide an update on the work completed to date within this program.

PUB-NLH-17 Please explain the inspection process of the sprinkler distribution rings prior to the installation of the automated deluge systems to ensure proper holes are drilled to discharge water.

PUB-NLH-18 Please provide a brief history of the program explaining why changes to the original plan have occurred.

C-29; Volume II, Tab 14: Upgrade Power Transformers, page 17, Hydro states: "*Based on the findings of the report, several recommendations have been made, when implemented, would reduce the likelihood of another failure.*"

PUB-NLH-19 What are the recommendations and how do they relate to the work to be undertaken in this project?

PUB-NLH-20 Please provide a table showing each transformer to be upgraded in this project, the specific work that will be undertaken on each transformer, and the cost, taken from a breakdown of the total cost for 2015 and 2016 shown on Table 11, page 23, that can be attributed to each upgrade on each transformer.

Page 18, Hydro states: "*Hydro, through CEA, is lobbying Environment Canada to have a regulatory amendment for sealed equipment such as instrument transformers and bushings to allow their use until 2025. Hydro's current budget is based upon receiving a regulatory amendment to 2025.*"

PUB-NLH-21 Please provide an update to the request for a regulatory amendment.

PUB-NLH-22 If this amendment is not approved how will it affect Hydro's 2015 capital budget?

C-41; Volume II, Tab 17: Inspect Fuel Storage Tanks – Various Sites, page 4, Hydro states: "*The American Petroleum Institute (API) recommends that above ground fuel storage tanks undergo an internal inspection every ten years after its initial service date.*" Hydro also states:

"This project will ensure that the tanks are inspected in accordance with the requirements identified in the API 653 standard."

PUB-NLH-23 Please provide an explanation of the Fuel Storage Tank Inspection Plan located in Appendix B page B2 and explain how this supports a 10 year inspection plan.

C-44; Volume II, Tab 18: Increase Fuel Storage – Rigolet, page 3, Hydro states: "*This will be mitigated by the purchase and installation of a temporary 90,800 Litre self-dyking fuel tank during the summer of 2014. The project proposal for this work will be submitted in a supplemental application.*"

PUB-NLH-24 What is the status of this proposed supplemental application?

PUB-NLH-25 Please provide the current Load Forecast and the Load Forecast which first indicated a deficiency in fuel storage.

PUB-NLH-26 Based on the Load Forecasts provided in PUB-NLH-25 please explain why the storage deficit was not anticipated in earlier planning studies thus eliminating the need for a temporary storage unit.

C-48; Volume II, Tab 20: Replace Accommodations and Septic System – Ebbegunbaeg

PUB-NLH-27 How often are Hydro employees required to perform work at Ebbegunbaeg and what is the typical duration of their stay on site?

C-53; Volume II, Tab 22: Replace Unit 2038 – Mary's Harbour

PUB-NLH-28 The response to PUB-NLH-020 of Hydro's 2014 Capital Budget Application discusses a long-term supply study for Labrador South, including Mary's Harbour. What is the status of this report? If complete, please provide a copy.

PUB-NLH-29 What is meant by "*isolation and icing operational issues with cooling systems*" as stated on page 4.

C-55; Volume II, Tab 23: Overhaul Diesel Engines – Various Sites

PUB-NLH-30 Page 7, Table 2 shows SAIDI numbers for 2012 for St. Brendan's, 16.633, and Charlottetown, 22.268, that are higher than the others for the Central and Northern regions, respectively, and for 2011 and 2013, respectively. Please provide details of the incidents that have caused these numbers.

C-57; Volume II, Tab 24: Install Transformer On Line Gas Monitoring – Various Sites

PUB-NLH-31 Does Hydro intend to continue sampling for dissolved gas analysis after the on line gas monitoring systems have been installed on transformers?

PUB-NLH-32 If Hydro does intend to continue sampling, is it Hydro's intention to continue sampling on an annual basis or to change the frequency of sampling to a more or less frequent schedule? Please provide reasons for Hydro's decision.

C-59; Volume II, Tab 25: Construct Second Distribution Feeder – Nain

PUB-NLH-33 Please explain what happened in 2011 to cause the significant increase in Net Energy (MHh) as displayed in Figure 2: Nain System Load History 2009-2013.

C-61; Volume II, Tab 26: Install Automated Meter Reading – Various Sites

PUB-NLH-34 Please provide a description of the new Landis + Gyr's PLX system and its capabilities.

C-63; Volume II, Tab 27: Replace Programmable Logic Controllers, page 11, Hydro states: *"The manufacturer indicates that there is no maintenance agreement in place. Discussion will have to be undertaken within Hydro to determine to what level, if any, of technical support from the manufacturer is warranted."*

PUB-NLH-35 Please provide details of any maintenance or support arrangements Hydro has established for Programmable Logic Controllers.

C-65; Volume II, Tab 28: Line Depot Condition Assessment and Refurbishment

PUB-NLH-36 Has Hydro given any consideration to the requirements of the HVdc transmission line in relationship to its current line depot locations?

PUB-NLH-37 Please provide a table showing the sites that will be refurbished in this project (Springdale, Cow Head, and Rocky Harbour) and the cost of refurbishment that can be attributed, from a breakdown of Table 1 on page 8, to each of these sites.

D-43; Volume I: Install Hydrometeorological Stations, page D-47, Hydro states: *"In 2009, the second year of the program, meteorological stations were installed at the Burnt Dam Spillway and the Hinds Lake Control Structure as approved by Board No. P.U. 36(2008). Installation of a third station at Victoria Reservoir was postponed, because it was to include a second snow water equivalent sensor. It was prudent to ensure successful operation of the first installation before deploying the technology at additional sites. The 2010 program was to include additional snow sensors and was also postponed pending additional experience with the Cat Arm installation."*

PUB-NLH-38 Please describe the lessons learned by Hydro from the completion of this program thus far.

D-289; Volume I: Upgrade Control Wiring Phase 1 to Terminal Station 1

PUB-NLH-39 Please confirm the remaining useful life of the control cables to be replaced.

PUB-NLH-40 Please explain why the repair of the damaged Junction Box B was not a viable option.

H-1, Volume I: Capital Expenditures 2010-2019. As per page H-1 the 2014 budget amounts for Generation and Transmission and Rural Operations is $144,087,000 and $126,387,000 respectively yet in the 2015 Capital Plan, Appendix A, page A2, the budget amounts Expended to 2014 for Generation and Transmission and Rural Operations is $111,096,200 and $59,127,700 respectively.

PUB-NLH-41 Please list the anticipated projects and amounts under these categories for 2014 that are not included in the 2015 Capital Plan, Appendix A listing.

PUB-NLH-42 What are the anticipated capital expenditures for Transmission and Rural Operations and Generation for 2014, including all projects currently approved, filed but not approved and projects soon to be filed.

DATED at St. John's, Newfoundland this 3rd day of September, 2014.

BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

Per Cheryl Blundon
Cheryl Blundon
Board Secretary