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September 4, 2014

Via Electronic Mail & Courier

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

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

Dear Madam:

RE: Newfoundland and Labrador Hydro 2015 Capital Budget Application
Requests for Information IC-NLH-01 to IC-NLH-47

Please find enclosed one original and twelve (12) copies of the Requests for Information of the Island Industrial Customers in relation to the above noted Application.

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

We trust you find the foregoing satisfactory.

Yours very truly,

POOLE ALTHOUSE

Dean A. Porter

DAP/lp
Encls.

J:\Clients\25754-61\NLBCPU, ltr #7 (RFI 2015 Capital Budget).doc

cc: Mr. Geoffrey P. Young, Senior Legal Counsel, Newfoundland and Labrador Hydro
Mr. Thomas J. Johnson, O'Dea Earle, Consumer Advocate

Attn: Ms. G. Cheryl Blundon

September 4th, 2014

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Mr. Paul Coxworthy, Stewart McKelvey – Island Industrial Customers
Mr. Thomas J. O'Reilly, Q.C., Vale Newfoundland and Labrador Limited
Mr. Gerard M. Hayes – Newfoundland Power Inc.

IN THE MATTER OF the *Public Utilities Act*, RSNL 1990, Chapter P-47 (the Act) as amended; 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; and (4) its estimated contributions in aid of construction for 2015 pursuant to s. 41(5) of the Act.

**REQUESTS FOR INFORMATION OF THE
ISLAND INDUSTRIAL CUSTOMERS GROUP
IC-NLH-01 to IC-NLH-47
Issued September 4th , 2014**

1 capital expenditure has been allocated in the Capital Plan (even
2 provisionally) to those facilities?
3

4 **IC-NLH-3**

5 With reference to the information provided on page A3 of Appendix
6 A of the 2015 Capital Plan, Hydro projects that a substantial share
7 of its annual capital budgets for generation will be represented by
8 hydraulic plant in the years 2015 – 2019. Presumably, the major
9 part of this projected expenditure is intended to extend the life of
10 hydraulic plant components on the Island beyond the 2020-2021
11 timeframe (by which time the reliability of the HVdc transmission
12 system is expected to be “well-established”, per page 6 of the
13 Holyrood Overview section of the Application).

14 Does Hydro intend to retire any hydraulic generation facilities on
15 the Island, at some foreseeable time or milestone after full
16 commissioning of Muskrat Falls, the HVdc transmission system
17 (including the reliability testing period) and the Newfoundland –
18 Nova Scotia transmission link (hereinafter referred to in the
19 following Requests for Information as the “Post-Isolated Island
20 System”)?
21

22 **IC-NLH-4**

23 With reference to the preamble to IC-NLH-3, what factors will Hydro
24 take into consideration, other than supplying power within the
25 Province to Island customers in accordance with the power policy
26 of the Province set out in section 3 of the *Electrical Power Control
27 Act, 1994*, in determining whether each component of the current
28 Island hydraulic plant will continue to be an essential component of
29 the Provincial electrical grid, after full commissioning of the Post-
30 Isolated Island System?

31 **IC-NLH-5**

32 Will any of the hydraulic plant on the Island, at some foreseeable
33 time or milestone after full commissioning of the Post-Isolated
34 Island System, be used to meet commitments or plans of Hydro (or
35 of its parent Nalcor) to supply power to be transmitted outside of
36 the Province?

37 **IC-NLH-6**

38 At page 7 of the 2015 Capital Projects Overview, Hydro states that
39 the retirement of the Hardwoods and Stephenville gas turbines is
40 not expected until 2025 and 2028, respectively. At page 5 of the
41 Capital Plan section of the Application, Hydro states that “These
42 facilities accumulate few operating hours generating electricity but
43 are crucial sources of power and energy during emergencies and
44 system peaks and provide voltage support, especially when
45 operating as synchronous condensers.”

46 Explain, in detail, why and how, after full commissioning of the 100
47 MW combustion turbine at Holyrood and of the Post-Isolated Island
48 System, and the conversion of Holyrood plant to synchronous

- 1 condenser mode, these gas turbines will continue to be an
2 essential component of the Provincial electrical grid for the supply
3 of power to Island customers?
4
- 5 **IC-NLH-7** With reference to IC-NLH-6, explain, in detail, what foreseeable
6 “emergency”, “system peak”, or “voltage support” scenarios, after
7 full commissioning of the 100 MW combustion turbine at Holyrood
8 and of the Post-Isolated Island System, and the conversion of
9 Holyrood plant to synchronous condenser mode, will still need to be
10 addressed by the continued operational status of the Hardwoods
11 gas turbine?
12
- 13 **IC-NLH-8** With reference to IC-NLH-6, explain, in detail, what foreseeable
14 “emergency”, “system peak”, or “voltage support” scenarios, after
15 full commissioning of the 100 MW combustion turbine at Holyrood
16 and of the Post-Isolated Island System, and the conversion of
17 Holyrood plant to synchronous condenser mode, will still need to be
18 addressed by the continued operational status of the Stephenville
19 gas turbine?
20
- 21 **IC-NLH-9** What are the projected capital expenditures, in addition to those
22 applied for or specifically identified in the 2015 Capital Budget
23 Application, to reliably maintain the operational status of the
24 Hardwoods and Stephenville gas turbines until 2025 and 2028,
25 respectively?
26
- 27 **IC-NLH-10** Why was the Hardwoods gas turbine not originally sited at
28 Holyrood?
29
- 30 **IC-NLH-11** With reference to the almost \$2.5 million dollars of 2015 capital
31 expenditure proposed for the 127 MW Cat Arm generation plant (for
32 replacement of ABB Exciter Unit 2, replacement of station service
33 breakers, and refurbishment of the access road), explain why and
34 how, after full commissioning of the Post-Isolated Island System,
35 this generation plant will continue to be an essential component of
36 the Provincial electrical grid to supply power within the Province to
37 Island customers?
38
- 39 **IC-NLH-12** With reference to the information provided on page A3 of Appendix
40 A of the 2015 Capital Plan about the share of annual capital
41 budgets for generation that will be represented by hydraulic plant in
42 the years 2016 – 2019, what portion (whether estimated or
43 approximated) of this projected expenditure has been identified for
44 potential upgrades, overhauls, or replacements of hydraulic plant in
45 relation to the Cat Arm generation plant?
46
- 47 **IC-NLH-13** Provide all available statistics, for the period 2009-2014, regarding
48 any interruptions or reductions from its 127 MW rating, in the supply

1 of power by the Cat Arm generation plant to the Provincial electrical
2 grid, including (if available) the cause for such interruption or
3 reduction.

4
5 **IC-NLH-14**

6 Provide details of all actual capital expenditures for the period
7 2009-2014, in relation to the Cat Arm generation plant, including
8 identifying all instances where the actual capital expenditure has
9 exceeded the amount approved, or has not yet been approved, by
10 the Board further to a capital budget application or a supplemental
11 capital expenditure application.

12 **Specifically Assigned Capital Expenditures**

13
14 **IC-NLH-15**

15 Identify any and all capital expenditures proposed by this
16 Application that Hydro intends to seek to have specifically assigned
17 to one or more members of the Island Industrial Customer Group
18 (Corner Brook Pulp and Paper, North Atlantic Refining and Teck
19 Resources).

20 **Project C-5: Replace Interior Coating of Surge Tank 3**

21
22 **IC-NLH-16**

23 At page C-6 of Hydro's 2015 Capital Budget Application, Hydro
24 relates that its consultant "identified significant deterioration of the
25 surge tank and recommended welding repairs, corrosion removal
26 and recoating of the interior of the surge tank and riser". Further,
27 at page 4 of Hydro's Report, found at Volume I, Tab 2, Hydro states
28 that the scope of this Project involves, *inter alia*, the "refurbishing of
29 all interior surfaces including surface preparation and coating of the
30 surge tank and riser interior".

31 However, the Report of Hydro's consultant, Hatch Ltd., states that
32 the "internal inspection revealed that the coating system of the
33 interior of the tank root, shell bowl and riser is in good condition
34 with some minor localized breakdown" and recommends that Hydro
35 refurbish localized areas of coating breakdown of the interior of the
36 tank shell, bowl and riser and apply a compatible coating system.

37
38 Why does Hydro maintain that refurbishment of all interior surfaces,
39 including surface preparation and coating of the surge tank and
40 riser interior, is reasonably justified in light of Hatch's
41 recommendations?

42
43 **IC-NLH-17**

44 With reference to IC-NLH-16, did Hydro consider only refurbishing
45 only localized areas of coating breakdown followed by the
46 application of a compatible coating system thereto? If yes, why
47 was this option not deemed appropriate by Hydro?

- 1 **IC-NLH-18** With reference to IC-NLH-16, if known, what would be the cost
2 savings of refurbishing only localized areas of coating breakdown
3 (followed by the application of a compatible coating system) as
4 opposed to the refurbishment of all interior surfaces including
5 surface preparation and coating of the surge tank and riser interior?
6
- 7 **IC-NLH-19** If completed, please provide copies of any detailed assessments of
8 the tank interior coating system completed with a certified NACE
9 inspector, as recommend by Hatch Ltd. at page A9 of its Report.
10
- 11 **Project C-9: Rehabilitate Salmon River Spillway – Bay d’ Espoir**
12
- 13 **IC-NLH-20** At page 9 of the Hydro’s Report found at Volume 1, Tab 4, Hydro
14 notes that the “reliability for all three gates to open when required
15 for spilling is critical” however it appears that only \$50,800.00 in
16 maintenance has been required for the period 2009-2013 and only
17 two major works or upgrades have been carried out since 2009
18 when the Hatch Report was completed (see Table 1 at page 8 of
19 the Report of Hydro).
20
21 Which of the recommendations contained in Hatch’s Report have
22 been implemented since 2009?
23
- 24 **IC-NLH-21** With reference to IC-NLH-20, have all of the “short term”
25 recommendations contained in section 6.6.1 of Hatch’s Report
26 been completed to date? If not, which recommendations have
27 been completed and why has Hydro not completed all of the
28 recommendations to date?
29
- 30 **IC-NLH-22** With reference to IC-NLH-20, which of the “medium term”
31 recommendations contained in section 6.6.2 of Hatch’s Report
32 have been completed to date?
33
- 34 **IC-NLH-23** As Hydro maintains that the condition assessment study performed
35 by Hatch in 2008-2009 indicated that the Salmon River Spillway
36 had a number of significant deficiencies that needed to be
37 addressed, why has Hydro not addressed such deficiencies in the
38 five (5) year since the Hatch Report was completed?
39
- 40 **Project C-13: Replace Station Service Breaker – Cat Arm**
41
- 42 **IC-NLH-24** Has Hydro investigated the possibility of building an inventory of
43 available parts from sources beyond its current supplier? If not,
44 could this be, in Hydro’s opinion, a possible option to defer the
45 need to complete this Project in 2015?
46
- 47 **IC-NLH-25** At page 12 of Hydro’s Report at Volume II, Tab 6, Hydro states
48 that:

1 "Maintenance on the station service systems are performed
 2 by both Hydro personnel and external contractors, based on
 3 availability of parts and technical experience. Both parts and
 4 technical expertise for these breakers and PLC is
 5 diminishing."
 6

7 Is the diminishment of technical expertise due to diminishing
 8 expertise of current Hydro staff (i.e. due to retirements, etc.)? If so,
 9 could this diminishment of expertise be filled by greater involvement
 10 of external contractors? If so, why does Hydro not consider this to
 11 be a viable option at present?
 12

13 **Project C-17: Replace ABB Exciter Unit 2 – Cat Arm**

14
 15 **IC-NLH- 26** At pages 3-4 of Hydro's Report in relation to this Project, Hydro
 16 relates that Table 1 lists the quantities of "spare parts in inventory
 17 and remaining from those previously removed from Unit 1 exciter".
 18 Does Hydro have any other spare parts in inventory beyond those
 19 previously removed from Unit 1 Exciter?
 20

21 **IC-NLH-27** At page B9 of Kestrel Power Engineering's Report (Appendix "B" to
 22 Volume II, Tab 8), Kestrel Power Engineering states:
 23

24 "The only alternative to replacement of the excitation system
 25 is to retain the existing system and to continue repairs as
 26 failures occur. If the excitation system is to be retained,
 27 Hydro should begin investigating suitable replacements for
 28 those components that are already obsolete."
 29

30 Has Hydro considered the viability and cost of this alternative? If
 31 yes, has Hydro investigated the availability or suitable replacement
 32 components? If not, why not?
 33

34 **Project C-29: Upgrade Power Transformers**

35
 36 **IC-NLH-28** At page 18 of Hydro's Report found at Volume II, Tab 14, Hydro
 37 notes that:
 38

39 "Section 16 of the latest Federal PCB regulations state that
 40 the end-of-use date for equipment containing PCBs that are
 41 500 mg/kg or greater was December 31, 2009. If this date
 42 could not be met owners were given an opportunity to apply
 43 for an extension up to 2014. Hydro made application in
 44 2010 and received the extension to 2014. The regulations
 45 also state that equipment with PCB concentrations from 50
 46 mg/kg to 499 mg/kg have to be out of service by 2015. In
 47 addition, Section 5(2) of the PCB Regulations prohibits a
 48 release of 1 gram of PCBs from in-use equipment.

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 2015. Hydro's current budget is based upon receiving a regulatory amendment to 2025."

When, in 2014, does Hydro's extension terminate?

IC-NLH-29

With reference to IC-NLH-28, has Hydro received any response from Environment Canada regarding its request for a regulatory amendment to 2025?

IC-NLH-30

With reference to IC-NLH-28, how would Hydro's proposed Project be changed/amended if it does not receive such regulatory amendment?

Project C-37: Perform Wood Pole Line Management Project

IC-NLH-31

With reference to the "Justification" for the 2015 Wood Pole Management project set out on page 5 of the Tab 15 report, identify the percentage of poles sampled which did not meet the minimum preservative retention level, for each line inspected in 1998 (i.e. for each of TL201, TL203 and TL218).

IC-NLH-32

With reference to the "Justification" for the 2015 Wood Pole Management project set out on page 5 of the Tab 15 report, identify the percentage of poles sampled which did not meet the minimum preservative retention level, for each line inspected in the Central region.

IC-NLH-33

With reference to the "Justification" for the 2015 Wood Pole Management project set out on page 5 of the Tab 15 report, and Hydro's statement that "Full scale tests of poles at Memorial University since 1999 indicate a 25% reduction of average pole strength over a 35-year period", please provide (a) the number of poles subjected to full scale tests, (b) the specific percentage reduction for each pole tested, (c) correlation between (b) and the age of that pole, and (d) correlation between (b) and (c) and the line/geographical region in which the pole was located.

IC-NLH-34

With reference to the "Justification" for the 2015 Wood Pole Management project set out on page 5 of the Tab 15 report, and Hydro's statement that "Full scale tests of poles at Memorial University since 1999 indicate a 25% reduction of average pole strength over a 35-year period", what is the industry standard for a safe or prudent level of pole strength retention?

1 **IC-NLH-35** With reference to the "Justification" for the 2015 Wood Pole
 2 Management project set out on page 5 of the Tab 15 report, and
 3 Hydro's statement that "Full scale tests of poles at Memorial
 4 University since 1999 indicate a 25% reduction of average pole
 5 strength over a 35-year period", is there any evidence of the rate of
 6 failure of poles at a specific percentage, or percentage range, of
 7 reduction of pole strength?
 8

9 **IC-NLH-36** With reference to the 2015 Wood Pole Line Management project,
 10 provide all available statistics of service disruption attributed to pole
 11 failure from before, and since, the start of this program in 2004, and
 12 including for any pole failure since the start of this program in 2004
 13 whether the pole was located on a line that had been inspected
 14 under the WPLM prior to that failure?
 15
 16

17 **Project C-44: Increase Fuel Storage – Rigolet**
 18

19 **IC-NLH-37** At page C-44 of the Application, Hydro relates that:
 20

21 "The increase in fuel storage at the Rigolet Diesel
 22 Generating Station is required by the fall of 2014 as it is
 23 projected that the existing fuel storage capacity cannot
 24 support the nine-month fuel requirement. The increase in
 25 forecasted load can mainly be attributed to the construction
 26 of a new community center in Rigolet."
 27

28 When did Hydro become aware of the construction of the new
 29 community centre in Rigolet and, therefore, the increased forecast
 30 load for the Rigolet Diesel Generating Station?
 31

32 **IC-NLH-38** With reference to IC-NLH-37, if Hydro had completed this Project in
 33 2013 or spring/summer 2014, would the portable 90,800 litre self-
 34 dyking fuel tank have been required? If no, why did Hydro delay in
 35 seeking Board approval to complete this Project during that period
 36

37 **IC-NLH-39** Does Hydro have any estimate regarding the cost to install the
 38 portable 90,800 litre self-dyking fuel tank to meet the fuel storage
 39 needs for the winter 2014-2015?
 40


41 **Project C-48: Replace Accommodations and Septic System – Ebbengungae**
 42

43 **IC-NLH-40** Please provide details regarding the number of staff who stayed in
 44 the Ebbengunbaeg site in each year from 2008 to 2013 and the
 45 dates of such stays?
 46

- 1 **IC-NLH-41** Please provide details regarding the number of days employees
2 have been transported to/from the site in 2013 and 2014 (to date)
3 via helicopter?
4
- 5 **IC-NLH-42** Please provide details regarding the number of days for each year
6 from 2008 to present when female staff have been present at the
7 site?
8
- 9 **IC-NLH-43** Has Hydro considered whether a six bedroom unit is required or
10 whether a smaller accommodations camp, with double occupancy
11 in some bedrooms (if required), would suffice? If yes, are details of
12 the cost of such smaller accommodations camp available?
13
- 14 **Project C-57: Install Automated Meter Reading – Various Sites**
15
- 16 **IC-NLH-44** Please provide details, if available, of the cost savings realized in
17 each of the years 2007-2013 relating directly to implementation of
18 this Project to date.
19
- 20 **IC-NLH-45** Table 2: Historical Information, at page 5 of Hydro's Report found at
21 Volume II, Tab 26, shows that from 2007 to 2013-2014, required
22 meter readers have been reduced from 19 to 14. Are these staff
23 still employees of Hydro and, if so, what net savings have been
24 recognized by Hydro as a result of this reduction in required meter
25 readers to date?
26
- 27 **Project C-67: Replace Vehicles and Aerial Devices**
28
- 29 **IC-NLH-46** Has Hydro considered increasing its average kilometer
30 replacement criteria (as depicted in Table 1 of Hydro's Report
31 found at Volume II, Tab 29) to more closely align with the criteria of
32 Utility #1 and Utility #2 (as depicted in Table 2 of Hydro's Report
33 found at Volume II, Tab 29) and, if no, why would this not be
34 appropriate?
35
- 36 **IC-NLH-47** If Hydro increased its average kilometer replacement criteria (as
37 depicted in Table 1 of Hydro's Report found at Volume II, Tab 29)
38 to more closely align with the criteria of Utility #1 and Utility #2 (as
39 depicted in Table 2 of Hydro's Report found at Volume II, Tab 29),
40 what savings could Hydro realize regarding its present Application
41 for approval in relation to this Project?
42

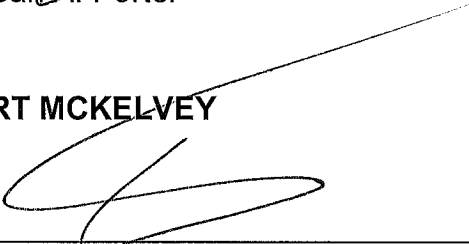
DATED at Corner Brook, in the Province of Newfoundland and Labrador, this 4
day of September, 2014.

POOLE ALTHOUSE

Per: 

Dean A. Porter

STEWART MCKELVEY

Per: 

Paul L. Coxworthy

TO: The Board of Commissioners of Public Utilities
Suite E210, Prince Charles Building
120 Torbay Road
P.O. Box 21040
St. John's, NL A1A 5B2

Attention: Board Secretary

TO: Newfoundland & Labrador Hydro
P.O. Box 12400
500 Columbus Drive
St. John's, NL A1B 4K7

Attention: Geoffrey P. Young,
Senior Legal Counsel

TO: Thomas Johnson, Consumer Advocate
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323 Duckworth Street
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TO: Newfoundland Power Inc.
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Attention: Gerard Hayes,
Senior Legal Counsel