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October 8, 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:

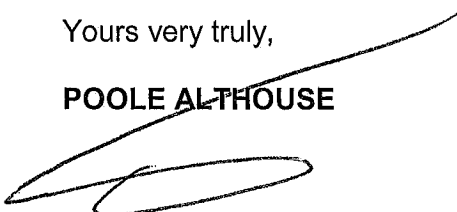
RE: 2015 Capital Budget Application

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

We trust you find the foregoing satisfactory.

Yours very truly,

POOLE ALTHOUSE


Dean A. Porter

DAP/lp
Encls.

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

1 **WRITTEN SUBMISSIONS OF THE ISLAND INDUSTRIAL CUSTOMERS**

2
3 **Introduction**

4
5 These are the written submissions of Corner Brook Pulp and Paper Limited, North Atlantic Refining Limited, and Teck Resources Limited (the “Island Industrial Customers”) in relation to
6
7 Hydro’s 2015 Capital Budget Application.

8
9 **Electrical Power Control Act, 1994**

10
11 Hydro’s Capital Budget process is governed by the Electrical Power Control Act, 1994 (the
12 “EPCA”). Section 3(b) of the EPCA states:

13
14 3(b) *all sources and facilities for the production, transmission and distribution of*
15 *power in the province should be managed and operated in a manner*

16
17 (i) *that would result in the most efficient production, transmission and*
18 *distribution of power,*

19
20 (ii) *that would result in consumers in the province having equitable access to*
21 *an adequate supply of power,*

22
23 (iii) *that would result in power being delivered to consumers in the province at*
24 *the lowest possible cost consistent with reliable service.*

1
2 Section 4 of the EPCA charges this Board with the responsibility of implementing the power
3 policy set out in section 3.
4

5 Implementation of power policy must not only be “consistent with reliable service” but must also
6 ensure that power is produced, transmitted and distributed in the “most efficient” manner at the
7 “lowest possible cost”. It is imperative that each of these principles of the power policy be taken
8 into account and balanced against each other, often requiring the making of difficult decisions by
9 this Board.
10

11 The Island Industrial Customers submit that in the context of 2015 Capital Budget Application,
12 the “lowest possible cost” principle can only be given meaningful effect if Hydro’s justifications
13 for its proposed capital expenditures are subjected to a full and rigorous review, so that Hydro’s
14 customers, including the Island Industrial Customers, can be assured that they are being provided
15 power in accordance with section 3(b) of the EPCA.
16

17 **General Submissions on Hydro’s Proposed Capital Expenditure on Hydraulic Plant**

18 At pages 5-6 of the 2015 Capital Projects Overview, Hydro outlines that the hydraulic plant
19 represents 54.4% of the proposed 2015 Capital Budget for generation, as compared to the
20 previous 5 year average of 36.2%. With reference to the information provided on page A3 of
21 Appendix A of the 2015 Capital Plan, Hydro projects that a substantial share of its annual capital
22 budgets for generation will continue to be represented by hydraulic plant in the years 2015 –
23 2019.

24 The Island Industrial Customers submit that this increased level of capital expenditure on
25 hydraulic plant should be subject to an assessment of whether their relative cost-to-benefit
26 relationship is consistent with the power policy of the Province established by section 3 of the
27 *Electrical Power Control Act, 1994*:

28 In the case of Hydro’s proposed capital expenditures on hydraulic plant, it is submitted that it is
29 only paragraphs 3(b)(i) and 3(b)(iii) of the EPCA power policy that are engaged:

30 *“all sources and facilities for the production, transmission and distribution of*
31 *power in the province should be managed and operated in a manner*

32 *(i) that would result in the most efficient production, transmission and*
33 *distribution of power,*

34 ...

1 *(iii) that would result in power being delivered to consumers in the*
2 *province at the lowest possible cost consistent with reliable*
3 *service. “*

4 Hydro, in its response to IC-NLH-003, acknowledges that the power policy of the Province
5 places a responsibility on Hydro to continue the study of the existing system and alternatives,
6 and that such study could result in decisions in the future to retire existing facilities.

7 The impact of the Labrador Infeed and the Maritime Link on what was hitherto an isolated
8 system for supply of electrical power will be unprecedented. In the interim, the Board should
9 consider whether capital expenditures on Island hydraulic generation assets can be at least
10 reasonably deferred, until the impact of the Labrador Infeed and the Maritime Link can be
11 assessed, in the context of the Island consumer demand for power that will need to be served at
12 that time.

13 **Proposed Capital Expenditures on the Cat Arm Hydraulic Plant**

14 The Cat Arm hydraulic plant is a significant generation source for the Isolated Island system.
15 Following the completion of the Labrador Infeed and the Maritime Link, the Board will have the
16 opportunity to assess whether the Cat Arm plant, and other Hydro hydraulic generation assets on
17 the Island, will continue to represent the most efficient production of power, that would result in
18 power being delivered to consumers in the province at the lowest possible cost consistent with
19 reliable service.

20 Hydro, by its response to IC-NLH-013, identifies that Cat Arm’s capability factor, DAFOR, and
21 failure rate statistics have remained consistent or improved over the last five years. It is
22 appropriate for the Board to consider whether the proposed Cat Arm capital expenditures are
23 necessary, at this time, to reasonably maintain efficient generation by that facility, consistent
24 with power being delivered to consumers in the Province at the lowest possible cost consistent
25 with reliable service.

26 **C-15 Refurbish Access Road – Cat Arm (\$0.990 million; Hydro Prioritization Rank 27)**

27 As will be noted, Project C-17: ABB Exciter Unit 2 – Cat Arm, has an estimated capital cost of
28 \$0.845 million and is ranked 20th by Hydro in its prioritization of Projects in its Capital Budget
29 Application. In the Operating Experience for the Unit 2 Exciter, Hydro identifies that it has been
30 in service since 1985, and it has operated well. However, Hydro’s consultant has confirmed that
31 the Exciter has entered its Obsolete phase, where rate of failure of components can be expected
32 to increase exponentially (the “bathtub” curve). Spare parts are reported to be no longer available
33 from the manufacturer. Hydro’s consultant advises that failure of the Exciter could lead to loss of
34 Unit 2 for a period of 6 months or more.

1 Hydro's evidence in respect of Project C-15: Replace Station Service Breakers – Cat Arm
2 (\$1.008 million for 2015 and 2016; Hydro Prioritization Rank 23) identifies instances of failures
3 of the station breakers to operate as expected. The components proposed to be replaced were
4 installed in 1985-1986 and are reported by Hydro to have entered their obsolescent phase.

5 Based on Hydro's evidence, the Island Industrial Customers do not object to these Projects.

6 However, it is instructive to compare the ranking of each of these Projects, and the evidence
7 tendered in support of each to their respective rankings, to the evidence in support of the other
8 major Cat Arm capital Project proposed by Hydro for 2015, the that being Project C-15:
9 Refurbishment of Access Road – Cat Arm.

10 The Island Industrial Customers note at the outset that Hydro's legal interest in and to the Cat
11 Arm access road is in the nature of a Crown easement only (Volume II, Tab 7, page 4). The
12 proposed capital expenditures would result in improvements to an asset which Hydro will not
13 own or even hold as a long term leaseholder, but merely have a right of access over. The Island
14 Industrial Customers submit that Hydro's legal interest in this asset is not sufficient to justify a
15 capital expenditure which ultimately would be paid for by Hydro's customers.

16 The concern as to whether this is a capital improvement which should be paid for by Hydro's
17 customers is reinforced by the fact that Hydro acknowledges that the access road is open to
18 public use. Hydro indeed proposes that the purported necessity that the road be made safe for
19 public use is a justification for Hydro's customers paying for the road upgrade; surely this is a
20 responsibility of the Province, not of Hydro and its rate payers. The Island Industrial Customers
21 submit that public use of the access road, and any consequent risk to the public, is not a valid
22 justification for a capital expenditure by Hydro to be borne by its rate payers. This purported
23 justification emphasizes that Hydro does not even have a sufficient legal interest in the road to
24 control and restrict the use of it. Indeed, Hydro acknowledges that it is this very public use that
25 has contributed substantially to the wear and tear on the road (Volume II, Tab 7, page 1).

26 Hydro asserts that the form of "title" represented by this Crown easement is to be equated with
27 the easement rights granted for its transmission and distribution lines. However, the nature of
28 those uses is materially different from the Cat Arm road access. The public does not have use of
29 the transmission and distribution lines themselves. The sharing of spaces used for transmission
30 and distribution lines with other public and private uses of the same space does not intrinsically
31 and unavoidably add to the wear and tear on the Hydro asset, as Hydro has acknowledged is the
32 case of public use of the Cat Arm access road. If improvements to this easement interest were
33 permitted to be included in Hydro's rate base, this would effectively, whether intended or not,
34 shift the cost of a public use onto Hydro's rate payers.

35 Hydro's evidence is that the road continues to be useable and is used on a daily basis by plant
36 personnel (Volume II, Tab 7, page 1). Hydro has not presented any evidence that the condition of

1 the road has affected the reliability or efficiency of power generation at the Cat Arm facility, or
2 poses any material risk of doing so in the near or mid future. Hydro has not presented any
3 evidence of incidents that call into question whether the road can be used safely by its employees
4 and invitees, exercising reasonable caution (such as moderated speed, not an unreasonable or
5 impractical expectation, given that the road is only 24 km long).

6 It is surprising, and difficult to accept on the presented evidence, that the Road Access Project
7 could be ranked as high as 27 by Hydro, given the 20 and 23 ranking attributed to the other two
8 Cat Arm Projects discussed above, for which there is substantially more evidence that reliability
9 of service to Hydro's customers may be engaged.

10 The Island Industrial Customers submit that Hydro's application for approval of this Project
11 should be denied. In a year (2015) where Hydro is proposing other substantial capital
12 expenditures on the Cat Arm facility, and over all capital expenditures of over \$274 million
13 dollars (Volume I, 2015 Capital Plan, Appendix A), this Project does not meet any reasonable
14 test of necessity for reliable service, at the lowest possible cost, to Hydro's customers.

15 **D-49 Refurbish Generation Unit – Snook's Arm (\$0.352 million; Hydro Prioritization Rank**
16 **22)**

17 This proposed capital project is an example of Hydro's seeking to impose on its customers the
18 costs of a planning exercise with dubious potential for benefit to those customers.

19 This facility was originally rated at 560 kW. It was de-rated in 2008 due to a failure of a braking
20 mechanism, and after repairs was only able to reach 500 kW of production.

21 Hydro has previously commissioned a 1993 report, included as Appendix B to this Project's
22 Description, which arrived at the following conclusions and recommendations (at page 12):

23 "Design compromises were made by the developers of these sites in the interest of
24 minimizing capital cost. Although power and efficiency gains could be made at
25 both sites by reconfiguring the tailraces and replacing the complete turbine
26 generator sets, such extensive modifications could not be justified at this time."

27 "The efficiency of these turbines when new was claimed by the manufacturer to
28 be 85%. At present the efficiency of these units is between 65% and 81%."

29 "Prior to purchasing equipment runners, the economic justification for the project
30 should be reviewed in light of information gained during this performance test
31 and hydrologic assessment."

1 Hydro, twenty-one years after this fairly-damning 1993 assessment of the long-term economic
2 justification for this generation facility, proposes to expend \$0.352 million to “fully identify the
3 required scope of the refurbishment” of this facility.

4 When questioned regarding the economic analysis completed by Hydro to justify the significant
5 possible rehabilitation proposed for Snook’s Arm, Hydro will only confirm that it will study the
6 “options of status quo, refurbishment, replacement or decommissioning so it can evaluate the
7 economic feasibility of Snook’s Arm” (see response to NP-NLH-013).

8
9 Further, as noted in the response to NP-NLH-020, Hydro could not provide an estimate of the
10 system marginal cost of energy (¢ per kwh basis) following the Labrador Infeed for comparison
11 with the levelized cost of energy sought in R.F.I. NP-NLH-019, and Hydro confirms that the
12 economic justification for the project is simply to enable Hydro to “compare and consider the
13 options of status quo, refurbishment, replacement or decommissioning so it can evaluate the
14 economic feasibility of Snook’s Arm” (see response to CA-NLH-023).

15
16 The facility, as rated, is not an essential component of Hydro’s generation capacity on the Island.
17 Hydro may choose to commission this assessment, but it is submitted that the cost of such an
18 assessment should not be approved as a capital expenditure to be included in Hydro’s rate base
19 unless (a) the assessment recommends that such a refurbishment is economically justified and (b)
20 the Board, after due process, accepts such a recommendation.

21 **Project C-48: Replace Accommodations and Septic System – Ebbegunbaeg (\$1.550 million;**
22 **Hydro Prioritization Rank 37)**

23
24 This Project, ranked 37th by Hydro in its list of Projects in its 2015 Capital Budget Application,
25 is a two (2) year Project with an anticipated budget of \$1,550,800 (\$489,400 in 2015 and
26 \$1,061,400 in 2016).

27
28 Until 2013, employees of Hydro stayed at existing accommodations at the Ebbegunbaeg control
29 structure. At that time concerns regarding the deteriorating building and mould growth lead to a
30 change whereby employees would be transported to and from the site daily via helicopter (when
31 required).

32
33 The existing accommodations consist of two (2) mobile units providing a total of six (6)
34 bedrooms, a kitchen, three (3) washrooms, a dining area and a living room.

35
36 The proposed new accommodations will provide separate accommodations for male and female
37 employees, six (6) bedrooms (each with its own washroom), a common washroom, a
38 kitchen/dining area, laundry facilities and a common/recreational area. In its response to CA-
39 NLH-066, Hydro maintains that six (6) bedrooms are required to house enough workers to

1 perform typical annual maintenance activities and Hydro relates that single room occupancy “is
2 the expected norm amongst the modern day workforce” (see response to CA-NLH-67).

3
4 This despite the fact that in response to NP-NLH-044, Hydro acknowledges that there are no
5 established national industry standards for onsite accommodation facilities.

6
7 Further, in response to CA-NLH-065, where the enquiry was made as to the times and number of
8 staff who stayed overnight at the site for the five (5) years previous to 2013, Hydro relates that
9 the information was “not possible to provide accurately because Hydro does not maintain data
10 relating to the occupancy of its remote site accommodations”.

11
12 Similarly, in responding to IC-NLH-042, Hydro acknowledges that it does not track employee
13 attendance at its work sites by gender and therefore cannot provide details of the number of days
14 when female staff are present.

15
16 In response to IC-NLH-043, Hydro acknowledges that a cost estimate for accommodations
17 containing fewer rooms with double occupancy was not prepared and Hydro was further unable
18 to provide details of the number of days employees have been transported to/from the site in
19 2013 and 2014 (to date) via helicopter.

20
21 The I.I.C. submit that Hydro has failed to provide adequate justification for the expenditure of in
22 excess of \$1,500,000.00, when smaller accommodations (with partial double occupancy and/or
23 containing less amenities (i.e. without seven (7) bathrooms to service a six (6) bedroom facility
24 or a common/recreational area) would likely suffice. This is highlighted by the fact that in the
25 worst case, crews could be expected to spend 48 nights at the facility in a given year (response to
26 PUB-NLH-027). Though the I.I.C. acknowledges that some expenditures may be required to
27 provide accommodations at the site with a reasonable level of comfort, privacy and safety, Hydro
28 has failed to establish that this Project, as proposed, is the least cost option to provide safe, least-
29 cost reliable electrical service to customers of Hydro at this time.

30 31 **Costs**

32
33 The Island Industrial Customers request that the Board make an order in their favour for their
34 costs of participation in the Application.

All of which is respectfully submitted on behalf of the Island Industrial Customers.

DATED at the City of Corner Brook, in the Province of Newfoundland and Labrador, this 8th day of October, 2014.

POOLE ALTHOUSE / STEWART MCKELVEY

Solicitors for the Island Industrial Customers

Per: _____

Dean A. Porter

Per: _____

Paul L. Coxworthy

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