

**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) 2013 Capital Budget pursuant to  
Section 41 (1) of the *Act*;
- (2) 2013 Capital Purchasers, and  
Construction Projects in excess of  
\$50,000.00 pursuant to Section 41 (3) (a)  
of the *Act*;
- (3) Its Leases in excess of \$5,000.00  
pursuant to Section 41 (3) (b) of the *Act*;
- (4) Its estimate contributions in aid of  
construction for 2013 pursuant to  
Section 41 (5) of the *Act* and for an Order  
pursuant to Section 78 of the *Act* fixing and  
determining its average rate base for 2011.

**Consumer Advocate's**  
**Submissions**

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## **Introduction**

1  
2 1. Newfoundland and Labrador Hydro's ("Hydro") 2013 Capital Budget Application ("the  
3 Application") was filed with the Board of Commissioners of Public Utilities (the "Board")  
4 on August 8, 2012. On December 18, 2012 Hydro advised the Board and the Parties  
5 that the following projects are being withdrawn from the Application, namely:

- 6
- 7 • C-8 Upgrade governor Controls Holyrood – Units 1 and 2;
- 8 • C-20 Upgrade Vibration Monitoring System Holyrood;
- 9 • D-2 Install Cold Reheat Condensate Drains Unit 3 Holyrood; and
- 10 • D-84 Install Fire Protection Upgrades – Holyrood.
- 11

12 2. This is the Consumer Advocate's submission with respect to the Application as amended  
13 in the foregoing manner.  
14

### **The Public Utilities Act, RSNL, c. P-47.**

15  
16  
17 3. Section 37(1) of the Public Utilities Act states that a public utility shall provide service  
18 and facilities that are reasonably safe and adequate and just and reasonable.  
19

20 4. Section 41 of the Public Utilities Act, requires a public utility to submit an annual capital  
21 budget of proposed improvements or additions to its property for approval by the Board.  
22

23 5. Section 78 of the said Act vests authority in the Board to fix and determine the rate base  
24 for the service provided or supplied to the public by the utility and also gives the Board  
25 the power to revise the rate base.  
26

### **The Electrical Power Control Act, 1994**

27  
28  
29  
30 6. Section 3(b) of the Electrical Power Control Act, 1994 states that all sources and  
31 facilities for the production, transmission, and distribution of power in the province should  
32 be managed and operated in a manner that would result in:

- (i) the most efficient production, transmission, and distribution of power;
- (ii) consumers in the province having equitable access to an adequate supply of power, and;
- (iii) power being delivered to customers in the province at the lowest possible cost consistent with reliable service.

7. The onus rests upon a utility to establish before the Board that the expenditures proposed are necessary in the year in which they are proposed and represent the lowest cost alternative for the provision of electricity service in the province.

8. The Board must determine whether Hydro's proposed capital spending projects in 2013 are reasonably required for Hydro to meet its statutory obligations to provide reasonably safe and adequate least cost service to its customers.

### **Holyrood**

9. The Board's Order in last year's Hydro Capital Budget Order No. P.U. 5(2012), gave specific direction to Hydro as regards to what it was ordered to file in relation to proposed capital expenditures for Holyrood in 2013. The context for the Board's specific direction, and the specific direction itself, is set out below:

**27 Future Holyrood Thermal Generating Station Capital Expenditures**  
Newfoundland Power submits that for all future applications for approval of capital expenditures in relation to the Holyrood Thermal Generating Station Hydro should be required to include an overview providing an updated outlook for the Holyrood plant and justifying the proposed expenditures in the context of that outlook. Newfoundland Power notes that, from 2020 onwards, Holyrood will cease to operate as a generator and will operate in synchronous condenser mode only. Newfoundland Power submits that such a fundamental change in the role and mode of operation of Holyrood has implications for the regulation of capital expenditures. Newfoundland Power argues that the Board must consider the extent to which capital expenditures that might in, the normal course be justified, may be appropriate in the context of a thermal generating plant with a known end-of-life date. Newfoundland Power states:

**"To assess Holyrood capital expenditure proposals under a variety of possible scenarios, it is necessary to understand which components of the plant are required to be maintained under the various operating scenarios; the relevant considerations regarding the condition of those components; and what are the minimum capital expenditures necessary to ensure the safe, reliable operation of Holyrood in accordance with its changing role**

1 and the finite life expectancy of significant components of the plant. "  
2 (Newfoundland Power, Submission Phase II, pg. 5)  
3

4 Newfoundland Power notes the material provided in Phase II provides a high level  
5 of detail with respect to the proposed expenditures but lacks any summary  
6 overview of the expenditure proposals in the context of Holyrood's evolving role.  
7 Newfoundland Power submits that to facilitate reasonable consideration of the  
8 volume of Holyrood-related material in future capital expenditure applications  
9 Hydro should be required to file a contextual overview of the proposed  
10 expenditures. Newfoundland Power submits that the overview should contain the  
11 following:  
12

- 13 "1. an updated outlook regarding anticipated changes in the role of  
14 Holyrood on the system,
- 15 2. an updated schedule of anticipated changes in Holyrood operations that  
16 may reasonably be expected to have an impact on capital expenditure  
17 requirements;
- 18 3. a summary description of all proposed Holyrood capital projects,  
19 including an explanation of how such projects relate to one another and  
20 whether such projects may be impacted by decisions yet to be taken  
21 regarding Holyrood's role on the system;
- 22 4. a summary guide to all internal and external reports filed in support of  
23 the capital expenditure proposals, summarizing alternatives considered  
24 and recommendations made; and
- 25 5. an explanation of the necessity of all proposed capital expenditures in  
26 the context of the anticipated changes in Holyrood operations."  
27 (Newfoundland Power, Submission Phase 19 II, pg. 8)  
28

29 In its submission Hydro accepts that, due to the crucial yet evolving role of  
30 Holyrood in Hydro's system and the technical and regulatory complexities that  
31 this implies, Holyrood should be treated with special attention in future capital  
32 budgets so that the consideration of Holyrood related projects can be more  
33 readily and comprehensively assessed.  
34

35 The Board agrees with Newfoundland Power's suggestion that an overview may  
36 assist the evaluation of capital expenditure proposals in relation to the Holyrood  
37 Thermal Generating Station. The Board accepts Newfoundland Power's  
38 suggestions as to what should be included in this overview with the proviso that  
39 the Industrial Customers and the Consumer Advocate are provided an opportunity  
40 to comment as to the specific content of this overview. As such the Board will  
41 order Hydro to file an overview in relation to proposed capital expenditures for the  
42 Holyrood Thermal Generating Station in its 2013 Capital Budget Application which  
43 reflects the reasonable suggestions of Newfoundland Power, the Industrial  
44 Customers and the Consumer Advocate.  
45

- 46 10. The Consumer Advocate submits that Hydro has not complied with the Board's Order in  
47 this Application. The Consumer Advocate submits that the Board should order Hydro to  
48 comply with the requirement in advance of its filing of its 2014 Capital Budget  
49 Application. Now that the Lower Churchill project has been sanctioned by Government

as of December 17, 2012, there is more certainty as to Holyrood's future role and lifespan as a generating facility. That only adds to the need for transparency in Holyrood capital spending decisions in light of the fact that its life as a generating facility is known to be finite.

11. In its Capital Budget, Hydro is now seeking approval for 8 projects which are related to Holyrood. These are:

1. Install Variable Frequency Drives on Forced Draft Fans 1, 2 and 3 (\$697,600.00 in 2013, \$2,659,700.00 in 2014);
2. Replace Condensate Polisher Annunciator Panels Units 1 and 2 (\$123,500.00);
3. Upgrade Fuel Oil Day Tank (\$209,600.00 spent in 2012, \$212,100.00 in 2013);
4. Install Backup System for Raw Water Supply and Clarifier (\$955,600.00);
5. Complete Condition Assessment Phase 2 (\$1,170,200.00 in 2013, \$1,004,700.00 in 2014);
6. Overhaul Unit 2 Extraction Pump South (\$101,500.00 in 2013, ongoing project);
7. Overhaul Unit 3 Boiler Feed Pump West (\$178,500.00 in 2013, ongoing project);
8. Overhaul Unit 3 Turbine Valves (\$993,900.00 in 2013, ongoing project).

12. In response to PUB-NL-6, Hydro provided information as to those capital projects which will be required if Holyrood were operating in synchronous condensing mode only. Only 1 of the projects, the backup water supply and clarifier project will be required in synchronous condenser operation only. The "backup" water supply and clarifier will only be required if the current system in place fails.

13. Hydro also states that the completion of the Condition Assessment will have partial applicability should the infeed occur and Holyrood is operating in synchronous condensing mode only.

#### **Submissions on Holyrood Projects**

##### **Install Backup System for Raw Water Supply and Clarifier (C-16; Tab 7)**

14. Hydro is seeking \$955,600.00 for this project.

1  
2 15. As outlined in PUB-NLH-20, Holyrood has been operating without a backup raw water  
3 system for decades.

4  
5 16. In terms of not suggesting this project earlier, Hydro has essentially stated that it was  
6 willing to tolerate the risk of not having a backup system like this in place, however, has  
7 determined that it can no longer do so (PUB-NLH-20).

8  
9 17. Of note, there are no known operational issues with the existing system, which has been  
10 in place since 1970.

11  
12 18. Should a breakdown of the current system occur, Hydro has asserted that it could take 3  
13 to 4 weeks to locate and address a failed section. It clarified this position in its reply to  
14 IC-NLH-24. Further in the same reply, Hydro acknowledged that it has not investigated  
15 whether technologies exist which would help facilitate locating a failure, but will do so as  
16 part of the work of the Phase I condition assessment.

17  
18 19. Hydro has not made itself aware of what other utilities have done in terms of a back-up  
19 raw water supply (CA-NLH-19).

20  
21 20. The water supply and clarification system in place has worked without issue since  
22 commission. Hydro has accepted the risk of not having a back-up system since that  
23 time. After four decades without a "back-up" system it is difficult to argue that one is now  
24 needed. There are possible alternate remedies in the form of technologies to locate a  
25 leak, should one occur, which have not been adequately canvassed to date.

26  
27 21. The Consumer Advocate submits that this project should be deferred to allow further  
28 investigation by Hydro on technologies for locating failures quickly, should one occur.  
29 This would allow the Board and the parties to have a complete picture on the necessity  
30 of this project. At this stage, this proposed project is at best premature and should not  
31 be approved. In the Consumer Advocate's submission, this proposed expenditure in  
32 2013 has not been shown to be reasonably required for Hydro to meet its obligations to  
33 provide safe and adequate, least cost service to its customers.

1        **Other Projects-Non Holyrood**

3        A:        Replace Automatic Transfer Switches Hind's Lake (D-51)

5        22.        Hydro is seeking \$314,700.00 for this project. It is classified as "Normal" and ranked 42<sup>nd</sup>  
6                in the Prioritization List (pages D-51 and A4).

8        23.        The last documented failure of the Switches was on April 28<sup>th</sup>, 2009 (CA-NLH-47)  
9                however, Hydro indicates that some failures, as many as 1 to 2 failures per year occur  
10               which are not recorded.

12       24.        The noted failures at page D-52 have all been addressed (CA-NLH-48). Since 2005,  
13               \$500 has been spent on repairs of the system (CA-NLH-49).

15       25.        Hydro submits that the key driver for this project is operator safety (CA-NLH-49). The  
16               Consumer Advocate questions this assertion given Hydro's low prioritization of this  
17               project. It belies Hydro's low Prioritization ranking that safety is the main motivator for  
18               this project.

20       26.        The Consumer Advocate submits that given the low cost of repairs to date, the limited  
21               reported failures arising from the current system, and the low priority of this project,  
22               replacement of the Switches at Hind's Lake should not be approved at this time. This  
23               project is not reasonably required for Hydro to meet its obligation to provide reasonably  
24               safe and adequate, least cost service to its customers.

26       B:        Upgrade Public Safety Around Dams and Waterways (D-56)

28       27.        Hydro seeks \$298,100.00 in relation to this project. It is designed to enhance safety  
29               around Hydro's dams, of which there are approximately 90.

31       28.        Despite having these many dams, Hydro's Safety Department does not have the specific  
32               expertise to perform dam assessments. Hydro has adopted the Ontario Power  
33               Generation model, in which internal groups are assigned to specific oversight duties.  
34               The committees oversee a consultant's work in relation to dams (CA-NLH-51).



1  
2 29. How or why Hydro decided to follow the Ontario Power Generation Model is unknown.  
3 What is known is that overseeing dam safety will be a continued responsibility for Hydro  
4 as the owner of these structures for decades to come. Given same, to continue to  
5 expend funds on outside consultants should be compared to other available options.  
6 These consultant costs will continue indefinitely as Hydro will remain responsible for  
7 these dams. Hydro has not provided any cost-based justifications for Hydro's not  
8 developing its own expertise to perform dam assessments.

9  
10 30. Funding for this project should be deferred until Hydro justifies this project on a cost  
11 basis.

12  
13 C: Vibration System (D-161)  
14

15 31. Hydro is seeking \$382,800.00 to install a vibration monitoring system on the Corner  
16 Brook frequency converter.

17  
18 32. The issue with vibration has been addressed by repairs completed by Siemens in  
19 December 2010. There has been no issue with vibrations on the unit since that time  
20 (CA-NLH-61, CA-NLH-64).

21  
22 33. There is no system for vibration monitoring installed on the frequency converter. Any  
23 checks are completed manually. In response to CA-NLH-63, Hydro outlined that Corner  
24 Brook Pulp and Paper staff perform vibration checks on a request basis. The number of  
25 manual checks on an annual basis was not provided.

26  
27 34. The frequency converter was installed in 1966. There has been "very little" maintenance  
28 history associated with vibration before 2008 (page D-166). The 2008 work caused  
29 vibrations to escalate, and this was subsequently addressed. After the machine was  
30 properly aligned in 2010, vibration was within acceptable levels and remains so (CA-  
31 NLH-61).

32  
33 35. The Consumer Advocate submits that there is little justification for this project at this  
34 time, and this project should not be approved. The cause of the increase in vibration in

2008 has been rectified, and the frequency converter is working without vibration issues since 2010. There is no cost analysis provided of the proposed system in comparison to the manual monitoring. Manual monitoring has served Hydro since implementation, and there is no basis upon which to conclude that it cannot do so on an ongoing basis.

36. If Hydro is concerned with manual monitoring, additional manual checks can be requested as deemed necessary by Hydro. This project is not reasonably required for Hydro to provide reasonably safe and adequate, least cost service to its customers.

D: Install Additional Washrooms (D-210)

37. Hydro is seeking \$250,000.00 for the first year of what it anticipates to be a fifteen (15) year program to install additional washrooms in remote facilities.

38. The Consumer Advocate has received and reviewed Newfoundland Power Inc.'s Brief of Argument dated October 3<sup>rd</sup>, 2012. At section 3.2 of Newfoundland Power's Brief, it addresses the washroom installation program.

39. The Consumer Advocate agrees with Newfoundland Power's submissions on this project and for the reasons set out by Newfoundland Power, Board approval should be withheld at this time.

E: Front End Engineering Design (Hydro Place) (D-231)

40. Hydro is seeking to capitalize Phase I Front End Engineering Design ("FEED") costs in 2013 associated with the 2014 Capital Budget submission. The cost is \$472,100.00.

41. Costs incurred by Hydro in FEED costs for its 2013 Capital Budget of \$229,700.00 are included in the costs of specific projects proposed in the 2013 Capital Budget Application. However, these costs were not approved in advance of Hydro's 2013 Capital Budget Application (IC-NLH-05). In fact, the \$472,100.00 proposed in the 2013 Capital Budget Application relating to Hydro's 2014 Capital Budget has not yet even been allocated to specific projects (IC-NLH-05).

1 42. The proposal represents a departure from the current situation where Hydro seeks  
2 approval of the capitalization of FEED costs at the same time the project is considered,  
3 to a situation where Hydro is asking that the Board approve estimated front end costs in  
4 advance of the scrutiny of the very projects to which these costs are attributable. The  
5 Consumer Advocate finds that this is unorthodox and notes that it is not supported by  
6 Newfoundland Power Inc., a regulated public utility on the grounds that it is "not  
7 necessary and reduces, rather than improves, regulatory transparency." (NP  
8 Submissions, p.8). Hydro admits that it has not investigated how other regulated utilities  
9 treat their pre-engineering costs pertaining to the capital budget process (CA-NLH-02).

10  
11 43. The Consumer Advocate recommends that this project be denied.

12  
13 F: Replace Personal Computers (D-234)

14  
15 44. Hydro is seeking \$463,900.00 to replace 111 Laptops, 116 Desktops and 2 Workstations  
16 (CA-NLH-72).

17  
18 45. This is a recurring cost. Currently Hydro seeks to replace its Laptops every 4 years and  
19 Desktops every 5 years (D-235).

20  
21 46. The cost of a Laptop (\$1,800.00) is considerably more than that of a Desktop  
22 (\$1,050.00) (CA-NLH-73). Laptops are assigned to employees who are expected to  
23 work away from the office (CA-NLH-74).

24  
25 47. The Consumer Advocate recognizes that computers have a limited lifespan in the  
26 workplace, after which replacement is required. However, given the current  
27 considerable cost difference in the price of a Laptop and a Desktop, the Consumer  
28 Advocate recommends that Hydro be ordered to demonstrate in its next Capital Budget  
29 Application in a detailed fashion the manner in which Hydro has determined the number  
30 of Laptop vs. Desktops required and to provide substantiation that only employees who  
31 are expected to work away from the office receive Laptops.

32  
33 48. Ensuring that Laptops are provided only to those employees who require them for out of  
34 office use will help control the recurring costs associated with Computer replacement.

1  
2 G: Install Automated Fuel Monitoring System, Upper Salmon (E-2)  
3

4 49. Hydro is seeking \$192,700.00 to implement an automatic fuel monitoring system at the  
5 North Salmon Spillway structure.  
6

7 50. At this time, monitoring occurs on a monthly basis.  
8

9 51. Hydro is not in compliance with the provisions of the Environmental Protection Act, 2003,  
10 as amended, and has not been since the fuel system was put into service in 2005 (CA-  
11 NLH-93). Hydro has never undertaken weekly dipping as required at this site, nor has it  
12 attempted to do so to date.  
13

14 52. Hydro sought an exemption in 2010 in relation to the frequency of dipping, which was  
15 rejected (CA-NP-91).  
16

17 53. With the current proposal, Hydro anticipates that it will be able to file a further request  
18 with Government "...that the operator duties be varied from the regulatory requirements  
19 so that weekly dipping is not required." (Page E-4).  
20

21 54. The Consumer Advocate submits that the more prudent course, given the cost of this  
22 project and given that Hydro's previous request for an exemption was rejected, is for  
23 Hydro to seek confirmation from Government prior to proceeding with this project. The  
24 confirmation sought would be whether Government would provide Hydro with an  
25 exemption to weekly dipping at these sites with this proposed automated fuel monitoring  
26 system in place. Confirmation should be obtained that if the proposed system is  
27 implemented in Upper Salmon, the weekly dipping requirement will be waived by  
28 Government prior to embarking on this project.  
29

30 55. This deferral approach would avoid the possibility that even with the proposed system in  
31 place Government may still determine that the variance in operator duties does not meet  
32 the regulations.  
33

1 56. Hydro considers this project Justifiable by its own submission, and is ranked 35th. This  
2 is not an immediate issue.

3  
4 57. The Consumer Advocate respectively submits this project is not necessary at this time  
5 and should be deferred until Hydro obtains full particulars as set out above.

6  
7 H: Legal Survey of Primary Distribution Line Right of Way (E-113)  
8

9 58. The Consumer Advocate submits that the cost of this project is increasing. As set out in  
10 Table 3 (page E-115) costs to date have been in excess of \$300,000.00.

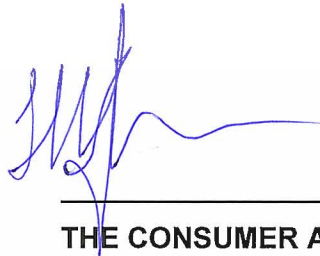
11  
12 59. As is clearly demonstrated in reply to IC-NLH-43, Hydro does not have any solutions to  
13 accelerate the process towards finality.

14  
15 60. A significant ongoing cost for this project is the survey work that is required.  
16 Approximately 1,385 kilometers of distribution line remain to be surveyed (page E-116).  
17 This project is scheduled to extend to 2021. The Consumer Advocate inquired whether  
18 surveys could be completed by staff internally at Hydro (CA-NLH-104). While Hydro has  
19 stated that its staff do not have the capacity to complete the surveys, Hydro has not  
20 examined whether the remaining survey work could be done more quickly and at less  
21 cost with in-house personnel (CA-NLH-104). In light of not examining this option it  
22 cannot be said that it has been established that a continuation of this project in 2013 is  
23 reasonably required for Hydro to meet its obligation to provide reasonably safe and  
24 adequate, least cost services to its customers.

25  
26 61. Given that this project is set to continue for another 9 years, the Consumer Advocate  
27 submits it is prudent for Hydro to examine whether the survey work can be completed in  
28 a more timely and cost efficient manner by in-house staff.

29  
30 62. The Consumer Advocate submits that though Hydro believes it is not possible to hire the  
31 appropriate staff, (CA-NLH-104), this is an option that should be formally investigated  
32 and reported upon.

**RESPECTFULLY SUBMITTED AND DATED** at St. John's, in the Province of Newfoundland and Labrador, this 19 day of December, 2012.



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**THE CONSUMER ADVOCATE**

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