

IN THE MATTER OF THE
2009 CAPITAL BUDGET APPLICATION

FILED BY
NEWFOUNDLAND AND LABRADOR HYDRO

**DECISION AND ORDER
OF THE BOARD**

ORDER No. P. U. 36(2008)

BEFORE:

**Andy Wells
Chair and Chief Executive Officer**

**Darlene Whalen, P.Eng.
Vice-Chair**

**Dwanda Newman, LL.B.
Commissioner**

**NEWFOUNDLAND AND LABRADOR
BOARD OF COMMISSIONERS OF PUBLIC UTILITIES**

AN ORDER OF THE BOARD

NO. P. U. 36(2008)

IN THE MATTER OF the *Public Utilities Act*, RSNL 1990, c. P-47 (the “*Act*”);

and

IN THE MATTER OF an application by Newfoundland and Labrador Hydro (“Hydro”) for an Order pursuant to Sections 41 and 78 of the *Act*:

- (a) approving its 2009 capital budget of \$47,856,000;
- (b) approving its 2009 capital purchases and construction projects in excess of \$50,000;
- (c) approving 2009 leases of \$6,720 per year;
- (d) approving the proposed estimated contributions in aid of construction for 2009; and
- (e) fixing and determining its average rate base for 2007 in the amount of \$1,484,545,000.

BEFORE:

Andy Wells
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1 **I BACKGROUND**

2
3 **1. The Application**

4
5 In accordance with the provisions of the *Act* Hydro filed its 2009 Capital Budget Application
6 (the “Application”) with the Board of Commissioners of Public Utilities (the “Board”) on August
7 12, 2008. In the Application Hydro requests that the Board make an Order:

- 8
9 (i) approving its 2009 Capital Budget of \$47,856,000;
10 (ii) approving 2009 capital purchases and construction projects in excess of \$50,000;
11 (iii) approving 2009 leases of \$6,720 per year;
12 (iv) approving the estimated contributions in aid of construction for 2009 of
13 approximately \$275,000; and
14 (v) fixing and determining its average rate base for 2007 in the amount of
15 \$1,484,545,000.
16

17 The Application, in accordance with historical practice, Board guidelines and relevant
18 legislation, includes an explanation of each proposed expenditure setting out a description,
19 justification, projected expenditures, costing methodology and future commitments, as
20 applicable. Additional studies and reports, including detailed engineering reports, are provided
21 in relation to a number of projects.
22

23 **2. Board Authority**

24
25 Section 41 of the *Act* requires a public utility to submit an annual capital budget of proposed
26 improvements or additions to its property to the Board for approval no later than December 15th
27 in each year for the next calendar year. In addition, the utility is also required to include an
28 estimate of contributions toward the cost of improvements or additions to its property which the
29 utility intends to demand from its customers.
30

31 Subsection 41(3) prohibits a utility from proceeding without the prior approval of the Board with
32 the construction, purchase or lease of improvements or additions to its property where (a) the
33 cost of the construction or purchase is in excess of \$50,000; or (b) the cost of the lease is in
34 excess of \$5,000 in a year of the lease.
35

36 Section 78 gives the Board the authority to fix and determine the rate base for the service
37 provided or supplied to the public by the utility and also gives the Board the power to revise the
38 rate base. Section 78 also provides the Board with guidance on the elements that may be
39 included in the rate base.
40

41 Board procedures and processes are established in accordance with the *Act* and the regulations
42 thereunder. The Board’s Capital Budget Guidelines set out the detailed process for capital
43 budget applications.

1 **3. Application Process**
2

3 Notice of the Application was published in newspapers in the Province beginning on August 16,
4 2008 inviting participation in the proceeding. Details of the Application and supporting
5 documentation were posted on the Board's website.
6

7 Notices of intention to participate were received from Hydro's Island Industrial Customers
8 (Abitibi-Consolidated Company of Canada – Grand Falls Division, Corner Brook Pulp and Paper
9 Limited; North Atlantic Refining Limited; Teck Cominco Limited, and Vale Inco Newfoundland
10 and Labrador Limited); Newfoundland Power Inc.; and the Consumer Advocate Mr. Thomas
11 Johnson.
12

13 The Board established a schedule for the proceeding, setting out the dates for the filing of
14 Requests for Information (RFIs) and related responses. A total of 142 RFIs were issued and
15 answered by Hydro. Pre-filed evidence was also filed by the Industrial Customers on October 6,
16 2008. No request for a public hearing was received and the Board determined the Application
17 would be considered on the basis of the written record.
18

19 Newfoundland Power advised the Board on November 5, 2008 that it would not be making a
20 formal written submission in relation to the Application. The Consumer Advocate and the
21 Industrial Customers filed written submissions on November 10, 2008. Hydro filed its written
22 submission on November 17, 2008.
23

24 Grant Thornton, the Board's financial consultants, reviewed the calculations of the 2006 average
25 rate base and filed a report on November 18, 2008 which was copied to all participants.

1 **II PROPOSED 2009 CAPITAL BUDGET**

2
3 **1. Overview**

4
5 Hydro's proposed total capital budget for 2009 is \$47,856,000. The proposed expenditures by
6 asset class are as follows¹:

<u>Asset Class</u>	<u>Budget (000s)</u>
<u>Generation</u>	
Hydraulic Plant	\$1,265
Thermal Plant	5,341
Gas Turbines	712
Tools and Equipment	393
Total Generation	\$7,711
<u>Transmission and Rural Operations</u>	
Terminal Stations	\$3,370
Transmission	5,984
Distribution	8,684
Generation	2,643
Properties	6,292
Metering	524
Tools and Equipment	1,674
Total Transmission and Rural Operations	\$29,171
<u>General Properties</u>	
Information Systems	\$1,634
Telecontrol	3,716
Transportation	2,156
Administrative	2,471
Total General Properties	\$9,977
Contingency Fund	\$1,000
Total 2009 Capital Budget	\$47,859

¹ The numbers have been adjusted to reflect actual totals from Application, Section A, Total Capital Project Overview. Differences are due to rounding.

2. Overall Capital Budget

The Island Industrial Customers express concerns about the increasing trend and overall level of Hydro's capital spending. In written submission the Industrial Customers note that Hydro's annual capital expenditures in the period 2004-2007 were \$27.984, \$33.952, \$41.217, and \$35.669 million respectively. The Industrial Customers note that the proposed 2009 Capital Budget of \$47.856 million is higher than actual spending in 2007. The Industrial Customers also note that the increasing capital expenditures are not the result of major capital expansion projects, such as a new generation source or a major new transmission line. At page 4 of the submission the Industrial Customers state:

"The Industrial Customers believe that, before such heightened level of annual capital expenditure becomes the "new normal", there should be commensurate heightened scrutiny of what is being sought to be achieved by Hydro, in the longer term, by its overall capital program."

In written submissions the Consumer Advocate notes that both Newfoundland Power and Hydro intend to file increasingly larger capital budgets for the next five-year period. According to the Consumer Advocate:

"These present and anticipated capital spending projections coupled with the already high cost of fuel burned at Holyrood and in other smaller communities served by diesel generation, will pose ever more serious challenges to consumers who ultimately bear the entire cost of service. This speaks to the heightened need to ensure that capital expenditures of the utilities are supervised in order to balance the interests of consumers and the utilities in keeping with the provision of least cost reliable service. Central to this supervisory function of the Board, is the need to insist that the utility adequately make the case to support its capital spending proposals."

The Board continues to believe that monitoring levels of capital spending is an important aspect of the regulatory oversight of a utility. In Order No. P. U. 30(2007) the Board acknowledged the importance of sound capital planning and required Hydro to file a five-year Capital Expenditure Plan focusing on strategic spending priorities. In compliance with this Order, Hydro filed the 2009 Capital Plan which shows that capital expenditures are expected to increase from about \$50 million to \$60 million over the 2009-2013 period. Hydro says in the Plan at page 8:

"This increased spending results primarily from a need to address aging infrastructure which requires a significant increase in annual expenditures to enable electrical energy to be produced, transmitted and distributed in a reliable manner. An additional influence on the magnitude of the plan is the rapidly escalating cost of equipment, which has been increasing in cost much faster than the Consumer Price Index in recent years, primarily due to elevated demand from other markets. The costs of raw materials required for the production of the equipment, such as copper, iron and alloy steels have doubled in price, or more, in recent years and there is no reason to suspect that they will return to their former prices within the five-year planning horizon."

1 The Board notes that this explanation is informative when considering the noted recent increase
2 in the overall capital budget as shown in the Application at Schedule G, Capital Expenditures
3 2004-2013. The increasing capital spending is expected given Hydro's aging infrastructure and
4 the recent trend of significant increases in costs. Based on the evidence filed in this Application
5 the Board is satisfied that the overall capital budget of \$47,856,000 proposed by Hydro is not
6 unreasonable in the circumstances.

7 8 **3. Capital Projects Over \$50,000** 9

10 Hydro's Application was filed and reviewed in the context of the Board's capital budget
11 guidelines. These guidelines direct the utility in the manner in which the capital budget is to be
12 presented and require the utility to provide certain information. Each capital expenditure over
13 \$50,000 must be defined and classified according to the guidelines. As well expenditures must
14 be segmented by materiality. Expenditures are defined as clustered, pooled or other; and
15 classified as mandatory, normal capital, or justifiable. A project classified as mandatory is one
16 which the utility is obliged to carry out as the result of legislation, Board Order, safety issues, or
17 risk to the environment. A normal capital expenditure is one that is required based on identified
18 or historical patterns of repair and replacement. Justifiable expenditures are those which are
19 justified based on the positive impact the project will have on the utility's operations.
20

21 In Sections B, C and D of its Application Hydro provides a summary of its proposed 2009 capital
22 projects over \$50,000, which comprise \$45,458,000 of the total proposed capital budget of
23 \$47,856,000². The majority (\$41,850,000 or 92%) of Hydro's 2009 capital projects over
24 \$50,000 are classified as normal. Of the remaining 2009 expenditures \$2,284,000 or 5% are
25 classified as mandatory, and \$1,324,000 or 3% are classified as justified.
26

27 The Board has reviewed Hydro's proposed capital projects in excess of \$50,000 as set out in
28 Section B, pages B-1 to B-43; Section C, pages C-1 to C-159; and Section D, pages D-1 to D-
29 114 and the additional information filed by Hydro in its responses to RFIs. The following
30 discussion addresses the particular projects as identified by the Industrial Customers and/or the
31 Consumer Advocate as those that should not be approved. The Board is satisfied that the
32 remaining projects, not specifically addressed, are adequately justified based on the evidentiary
33 record and are appropriate and necessary in the circumstances. Therefore all projects over
34 \$50,000 that are not specifically addressed will be approved.
35

36 Hydro has proposed a number of projects which involve expenditures beyond 2009. The Board
37 notes that capital budget spending in the utility context is often long term with projects spanning
38 more than one financial year. This fact has been acknowledged in the Capital Budget
39 Application Guidelines whereby the Board may provide approval for the utility to proceed with a
40 project which may involve spending over the course of several years. In relation to the projects
41 in the Application requiring expenditures beyond 2009, the Board will approve the expenditures
42 for future years as a part of its approval of Hydro's 2009 capital budget. This approval to

² The balance of the proposed 2009 capital budget consists of \$1,401,000 for projects less than \$50,000 and \$1,000,000 for a contingency fund.

1 proceed with these multi-year projects is provided consistent with the provisions and
2 requirements of the Capital Budget Application Guidelines.

3
4 Page B-2 Refurbish Fuel Storage Facility: \$2,866,700

5
6 This project consists of upgrading the drainage system and pipe supports at the Holyrood
7 Thermal Generating Station (HTGS) Tank Farm. The proposed work includes removing
8 vegetation, site grading, supplying and installing drainage piping and an oil water separator,
9 restoring main berm, concrete work, sand blasting and coating of pipe supports. According to
10 the Application the project is justified on the basis that the facility must operate in accordance
11 with industry standards and meet provincial and federal regulations. Hydro also states that
12 inspection of the fuel storage facility has identified and confirmed that the dyked drainage
13 system and the pipe supports are deteriorated and need to be upgraded. An engineering report
14 “Holyrood Thermal Generating Station Refurbishment of the Fuel Oil Storage Facility” was
15 provided in support of this project.

16
17 The Consumer Advocate notes that the consultant’s report filed in support of this project was
18 completed before the milestone dates were set for the Lower Churchill project, and that the scope
19 of the work was to determine the extent of upgrades for various components “to extend the
20 useful life of the facility by at least 20 years.” The Consumer Advocate states:

21
22 *“It will not be known until 2009 whether the Lower Churchill and in-feed project will receive*
23 *sanction or not. If sanctioned NLH has indicated that the earliest that the fuel oil storage facility*
24 *will not be required is 2015. Hence there is a substantial possibility that the storage facility will*
25 *not be required in another 7 or so years.”*

26
27 According to the Consumer Advocate there is no federal or provincial government legislation
28 directing the work at this time and that, upon removal of the vegetation from the dykes
29 containing the fuel tanks, Hydro will be in compliance with the National Fire Code of Canada. It
30 is noted that Hydro confirms in its report that the capacity of the tank farm dyke is adequate but
31 that retained water reduces the available capacity for fuel to levels below the Gasoline and
32 Associated Projects Regulations, prompting Hydro to propose drainage enhancements for the
33 elimination of storm water accumulation inside the dyke. However the Consumer Advocate
34 notes that Hydro has achieved drainage of the dyked areas through the reallocation of operator
35 time from other duties with added overtime in some instances. The Consumer Advocate
36 expresses concern with approval of this project based on a report which did not address
37 extension of the useful life of the facility for less than 10 years. According to the Consumer
38 Advocate this is problematic when it is at least probable that it will be known in 2009 whether
39 the decommissioning of the fuel oil storage facility would occur within that timeframe. The
40 Consumer Advocate states:

41
42 *“In the case of this proposed \$2.87 million project, the Consumer Advocate submits that this is*
43 *indeed an instance where it is meaningful to ask whether all of the proposed work is required to*
44 *bring the life of the plant beyond 2015 or to some other date. However NLH’s Application*

1 *provides little assistance to the Board whose task it is to consider the question in reaching its*
2 *determination.*

3
4 *As stated, in the present ‘window of uncertainty’ caution is required. The Board, it is submitted,*
5 *will be much better positioned to determine whether to approve this project once the future of*
6 *Holyrood has been resolved in late 2009.”*
7

8 In written submissions the Industrial Customers note that this project accounts for 5% of Hydro’s
9 proposed capital budget. The Industrial Customers raise issues similar to those highlighted by
10 the Consumer Advocate, including the timing and scope of the consultant’s report filed in
11 support of the project. The Industrial Customers also note that that there have been no oil spills
12 or leaks at the fuel storage facility and that the project has not been designated as mandatory
13 because there is no federal or provincial legislation directly requiring this work to be done. The
14 Industrial Customers argue that Hydro’s assertion that it is not prudent to delay the “Pipe
15 Supports” component of this project due to the risk of an oil spill is also not consistent with the
16 “medium priority” accorded to this work by the consultant. As well, the Industrial Customers
17 argue that Hydro has been able to maintain draining of the dyked areas by overtime operator time
18 at an average cost of \$5,000 per year. According to the Industrial Customers:
19

20 *“Even with a doubling of these overtime costs, continuing these conservative draining measures*
21 *would be a more reasonable and fiscally prudent means of addressing any risk of oil leaks, as*
22 *compared to the proposed \$2.9 million dollar expenditure for a 20 plus year life extension of the*
23 *Facility which may prove, within a year, to have been unnecessary.”*
24

25 In its response submission Hydro states that two of the fuel tanks were constructed in 1968, and
26 the other two in 1979. According to Hydro the fuel storage system has deteriorated to the point
27 that refurbishment is necessary to ensure that they can continue to provide reliable fuel storage.
28 Problems with the fuel storage system components have been identified by external consultants
29 and, Hydro states, failure to address these problems puts the facility at risk for an oil spill.
30 Hydro also states that there are environmental considerations that require upgrades to be
31 undertaken. Specifically Hydro is required by the Storage and Handling of Gasoline and
32 Associated Products Regulations, 2003 (under the *Environmental Protection Act*) to take
33 reasonable, prudent and effective steps to ensure that oil spills do not occur. These regulations
34 also require a dyke containment volume of 44.8 million litres; at present the volume is 40.2
35 million litres.
36

37 In reply to the submissions of the Industrial Customers and the Consumer Advocate that the
38 project should be delayed until such a time when the future of the Holyrood facility is more
39 certain, Hydro states that the 20-year time frame for the consultants’ study was prepared on the
40 basis that the facility should be enabled to continue in operation for a period of twenty years.
41 This time period was chosen to cover all future operating scenarios for Holyrood. Hydro states
42 that it is only proceeding at this time with those items which, in Hydro’s judgement, require
43 immediate action irrespective of the future operating time frame.
44

45 The Board is satisfied that this project should proceed as proposed. The existing fuel storage
46 system components are old and, based on the evidence, are deteriorated. There have been no

1 major upgrades to the fuel storage facilities since construction. It is evident that the pipeline
2 support structures are deteriorated and require refurbishment to ensure safe and reliable
3 operation. As well, according to Hydro's evidence, the current drainage system has partially
4 failed which has resulted in a major problem with retention of storm water within the dyke
5 containment area, reducing the ability of the earth dyke to contain a potential spill and
6 contributing to further deterioration of system components. The consequences, including the
7 possibility of an oil spill, associated with not addressing the issues raised are serious. The Board
8 finds that Hydro's proposed actions are prudent and reasonable in the circumstances.

9
10 With respect to the submission of the Industrial Customers and the Consumer Advocate that this
11 project should be delayed until the future of the Holyrood facility is more certain the Board does
12 not agree that this project is one which should be delayed. The system components as identified
13 in this Application will continue to age and the risk of an oil spill is ongoing unless these
14 refurbishments are undertaken. The Board is not persuaded that it is in the interest of the utility
15 or ratepayers to delay this work beyond 2009. The Board remains cognizant that all proposed
16 projects for the Holyrood facility must be considered in the context of the uncertainty at this time
17 of the future of the facility. The Board also notes that Hydro has confirmed that the fuel storage
18 facility will not be required if an HVDC transmission line to the Island is constructed as part of
19 the development of the Lower Churchill project. However the Board also has a responsibility to
20 ensure that Hydro is able to continue to operate the facility safely and reliably until at least 2015,
21 which is the earliest time the plant's role might change. It is in this context that the Board will
22 approve this project.

23 Page B-13 Perform Wood Pole Line Management Program: \$2,256,200

24
25 The objective of the Wood Pole Line Management (WPLM) program as set out in the
26 Application is to "maintain a comprehensive pole inspection and testing program using the
27 conventional sound and bore methods supplemented by Non Destructive Evaluation (NDE),
28 periodic full scale tests of poles removed from service, and remedial treatment application.
29 Structural analysis to assess the line reliability, taking into account the system concept, is applied
30 against all inspection information. Any recommended replacement and/or refurbishment is
31 based on the assessment of quantitative risk with respect to in-service pole strength." The
32 program is based on two 10-year inspection cycles beginning in 2005. The program provides for
33 an annual report to identify problem areas for the regional asset managers and to develop
34 recommendations for appropriate pole replacements, as well as other components in the
35 following years.

36
37 A number of issues with this project were raised by the Industrial Customers. The Industrial
38 Customers note that the WPLM program represents substantial ongoing commitment of capital
39 expenditure, with almost \$9.5 million dollars spent to date and a projected total amount of
40 \$37,336,900 if allowed to proceed as presently contemplated through to 2023. The proposed
41 2008 expenditure constitutes almost 5% of Hydro's 2008 capital budget. The Industrial
42 Customers state:

43

1 *“Given Hydro is proposing to enter into the fifth year of this Program, and given the high*
 2 *continuing expenditure level this Program represents, the Industrial Customers believe that*
 3 *further scrutiny of the facts arising out of the Program, and of whether the Program has been*
 4 *well managed, is warranted at this juncture.”*
 5

6 The Industrial Customers submit that, with the local knowledge of Hydro employees of line
 7 conditions and environmental conditions, it is not self-evident that an inflexible line-by-line
 8 inspection regime is necessary, or that the number of inspected poles per line could not be
 9 prudently reduced. The Industrial Customers note that the majority of the refurbishment work to
 10 be completed in 2008 based on the 2007 inspection program is in relation to two lines TL-251
 11 and TL-252 in the Central Region. According to the Industrial Customers this calls into question
 12 the cost versus benefit gained by inspection of the other lines and raises the issue of whether the
 13 poor condition of the two central region lines would have been apparent to local Hydro personnel
 14 even without the WPLM program. It is also noted that only a minority of the lines inspected
 15 showed significant problems. The Industrial Customers state:

16
 17 *“In summary, the Industrial Customers question whether the facts made available by Hydro since*
 18 *implementation of the Program support a strong need for WPLM, and question whether the*
 19 *WPLM is well-managed, in the sense of being cost-effective, as presently configured. The*
 20 *ongoing costs to rate payers of this Program are significant; it is reasonable for rate payers to*
 21 *expect that Hydro should be able to demonstrate substantial, objective evidence of benefit from*
 22 *its WPLM efforts, and not just provide evidence of the efforts themselves.”*
 23

24 The Industrial Customers submit that the WPLM Program should be postponed, or significantly
 25 curtailed, until the issues raised are sufficiently addressed.

26 In its reply submission Hydro takes issue with the Industrial Customers’ suggestion that “local
 27 knowledge” of line conditions and environmental conditions would have resulted in the
 28 identification of the poor condition of the poles on lines TL-251 and TL-252 in the Central
 29 Region. Hydro submits that visual inspections by local personnel are haphazard, superficial and
 30 unsystematic, and cannot provide a reliable indication of the condition of transmission structures
 31 since they will only identify those defects visible at the surface of the pole and only on those
 32 poles which are visited while performing other duties. According to Hydro:

33
 34 *“The methods used to analyze the poles to assess their lost strength and the degree of rot that is*
 35 *occurring includes non-destructive testing that is calibrated by testing poles to their breaking*
 36 *point at specialized facilities at Memorial University. This level of analysis and information,*
 37 *based upon Reliability Centered Management principles, is well beyond that which can be*
 38 *obtained from ‘local knowledge’...”*
 39

40 Hydro also states that the fact that a similar number of poles have been identified as requiring
 41 replacement as were identified in previous years (prior to the WPLM) does not mean, as the
 42 Industrial Customers suggest, that there has not been any advancement in prudent pole
 43 management. The WPLM program is intended to identify poles that are subject to decay and to
 44 treat or replace these poles before they fail in service, thereby avoiding more expensive repairs,
 45 rebuilt and service outages as well as dangers to lineworkers.

1
2 In addition Hydro questions the Industrial Customers' suggestion that statistical evidence should
3 be provided to justify the program. Hydro states that it would be impractical and irresponsible to
4 require this statistical evidence which would have to be collected over a number of years for
5 poles in the WPLM as well as poles managed through "local knowledge". Hydro points out that
6 the Board approved the WPLM program in 2004 and that similar programs are in place at BC
7 Hydro, Hydro One and Manitoba Hydro.

8
9 The Board approved the current WPLM program as part of its consideration of Hydro's 2005
10 capital budget application. In Order No. P.U. 53(2004) the Board stated:

11
12 *"This approach is a more strategic method of managing wood poles and conductors and*
13 *associated equipment and is persuaded that the new WPLM Program, based on RCM principles,*
14 *will lead to an extension of the life of the assets, as well as a more reliable method of determining*
15 *the residual life of each asset. One of the obvious benefits of RCM will be to defer the*
16 *replacement of these assets thereby resulting in direct benefit to ratepayers. In addition, the*
17 *development of a database from data collected in the field should streamline the capital budget*
18 *process in the future."*

19
20 The WPLM program has been included in each of Hydro's capital budget applications since
21 2005 with budgeted expenditures ranging from \$2,147,800 in 2007 to \$2,587,600 in 2005. In
22 2008 the Board approved an expenditure of \$2,188,300 for this program. Hydro files a report as
23 part of its annual capital budget approval request for this project which provides an update in
24 relation to the WPLM program, including a forecast of the future program objectives.

25
26 The Board is satisfied that its findings with respect to the value of this project as set out in Order
27 No. P.U. 53(2004) remain valid. The WPLM encompasses the annual inspection, treatment and
28 refurbishment of all of Hydro's wood pole transmission lines and continues to provide a strategic
29 and comprehensive approach for Hydro to manage its significant inventory of wood pole assets.
30 The information provided in the reports on the results of the WPLM demonstrates that a
31 consistent and systematic approach to wood pole line inspection and maintenance is desirable
32 and provides benefits to ratepayers in terms of improved long-term asset management. Early
33 detection and treatment of the wood poles before structural integrity becomes an issue mitigates
34 against possible reliability and safety issues associated with wood pole line failures. As well the
35 Board is satisfied that through early detection and remediation this program can defer line
36 rebuilding programs and the associated costs and forced outages. The Board is not persuaded
37 that requiring the additional information suggested by the Industrial Customers would be prudent
38 at this time.

39
40 Page B-19 Replace Accommodations, Septic System and Upgrade Plant Communications (Cat
41 Arm): \$1,254,300

42
43 This project consists of the supply and set up of six modular units for accommodations at the Cat
44 Arm generating site (Cat Arm). According to the Application the existing facility, which
45 consists of pre-owned mobile trailers that were renovated and brought to the site in 1982, poses

1 health risks due to the presence of mould. As a result employees must seek off-site
2 accommodations which are up to 120 kilometres away. Hydro states this results in increased
3 safety concerns and additional costs. Also since the Cat Arm road is not plowed during the
4 winter months on-site accommodations are needed to be able to respond to outages and repairs.
5 An engineering report “Cat Arm Hydro Generating Station Replacement of Accommodations”
6 was provided in support of this project.

7
8 The Industrial Customers identified several concerns with this project. They state that the
9 project justification does not address why the existing accommodations at Pollard Point are so
10 deficient as to warrant this level of expenditure for new on-site accommodation. According to
11 the Industrial Customers there are no direct health or safety concerns arising from the quality of
12 the Pollard Point accommodations. As well Hydro has not provided any evidence that the level
13 of risk associated with travel from the Pollard Point site to Cat Arm has resulted in accidents or
14 otherwise demonstrated that the level of risk is unacceptable when compared to travel by Hydro
15 employees to other work sites. The Industrial Customers also note that the majority of work at
16 the Cat Arm site is planned and scheduled during the August-October period, when adverse
17 weather conditions do not impact on access to the Cat Arm facility. The Industrial Customers
18 state:

19
20 *“Taken together, the above-identified issues call into question whether new on-site*
21 *accommodations are the least cost alternative, particularly as Deer Lake was used as the*
22 *assumed accommodations for Hydro’s cost benefit analysis. Hydro has not demonstrated that*
23 *any deficiencies with the existing Pollard Point accommodations are irremediable and those*
24 *accommodations cannot be considered to have been excluded as the least cost alternative. Nor*
25 *does the material filed support a conclusion that the large amount requested for this project is*
26 *necessary to produce a level of basic accommodation properly associated with an occasional use*
27 *camp such as this.”*

28
29 The Consumer Advocate also raises several issues with this project. He states that Hydro has not
30 followed the remediation recommendations of its environmental consultants made in June 2007.
31 This has, the Consumer Advocate argues, materially increased the cost of carrying out other
32 work at Cat Arm since the existing accommodations and facilities have been closed down due to
33 mould issues. The Consumer Advocate also submits that in justifying this project economically
34 Hydro should compare the costs associated with constructing on-site accommodations to the
35 costs of Hydro carrying out the recommendations of its own consultants. The Consumer
36 Advocate argues that, according to the Capital Budget Application Guidelines, the materiality of
37 this expenditure is such that the proposed project must be supported by much more
38 comprehensive and detailed documentation than other expenditures and that the evidence record
39 is lacking in this respect.

40
41 In its reply submission Hydro reiterates that the present accommodations at the Cat Arm
42 generating station were built as temporary accommodations in 1982 from left over construction
43 trailers and are now in excess of 20 years old. In addition the facilities are subject to mould
44 requiring remedial work to bring the camp to a habitable state. Hydro says in its submission that
45 this would require disassembly of the facility and the addition of a new air exchanger and

1 foundation. Hydro is proposing replacing the camp in its entirety because of its general poor
2 condition and unsuitability. Hydro states that the alternative of commuting by means of a two-
3 hour round trip to Pollard's Point (or a four-hour round trip to Deer Lake) is not acceptable for
4 its employees and contractors because of the limited food selections and fatigue and safety
5 concerns with the daily travel requirement.
6

7 The Board has reviewed the evidentiary record for this project and is satisfied that the project
8 should be approved as planned. The remoteness of the Cat Arm site and the issue of daily access
9 during the winter months does, in the Board's view, support the need for on-site
10 accommodations. The engineering report filed with the Application identifies extensive mould
11 issues for the existing accommodation facilities as well as concerns with the existing septic
12 system, which is 24 years old. The Board notes that the existing accommodation facilities have
13 been closed due to the health risks associated with the active mould growth. As well there are
14 presently no separate male/female accommodation facilities.
15

16 While the Consumer Advocate suggests that this project justification should have considered the
17 costs of remediation of the existing facilities as proposed by the environmental consultants the
18 Board accepts Hydro's explanation that it would be very expensive to conduct remedial work on
19 these facilities that are at the end of their useful lives and which are otherwise inadequate due to
20 the lack of separate accommodations for males and females, a deteriorating septic system and
21 lack of recreational facilities. The net present value analysis shows that replacement of the
22 facility is more cost effective than continuing with the present arrangement of off-site
23 accommodations. The Board is satisfied that this project will result in accommodation facilities
24 that meet current building standards and which will provide a reasonable level of comfort and
25 safety for employees and contractors.
26

27 Page B-31 Replace Vehicles and Aerial Devices: \$2,156,400

28

29 This proposed expenditure is to replace 33 light duty transportation vehicles and six heavy duty
30 work vehicles in accordance with the normal replacement cycle which is based on projected age
31 and kilometres at the time of disposal. Hydro states that the vehicles being replaced have
32 become unreliable.
33

34 In written submissions the Industrial Customers note that actual purchase costs in the past have
35 run 10-20% below budgeted purchase costs and that this trend has continued for most 2008
36 purchases. In the view of the Industrial Customers, vendors' information that dealer concessions
37 and discounts may be discontinued run counter to recessionary indicators in the economy. The
38 Industrial Customers state that, given Hydro's experience with actual purchase costs running
39 below budgeted purchase costs, it would be reasonable to reduce this budgeted expenditure by
40 20%.
41

42 The Board accepts Hydro's evidence with respect to this estimated project expenditure. Actual
43 purchase prices have been lower than budgeted in the past because of higher than normal dealer
44 discounts and concessions; however, these discounts and concessions are uncertain and beyond
45 Hydro's control. (IC21-NLH) In light of this it is not reasonable or prudent to reflect a reduction

1 in the 2009 budget for this project. Should these discounts and concessions materialize the
2 actual expenditures will be reflected in rate base as has been done in recent years.

3
4 Page D-30 Pave Parking Lots and Roadways (Bishop's Falls): \$150,200

5
6 This proposed project is to supply and install approximately 7,000 square metres of asphalt
7 pavement at Bishop's Falls to cover the parking areas at the Service Building, the Helicopter
8 Hanger and the roadway to the Diesel/Network Services shop. Hydro states that the existing
9 gravel surface results in a buildup of snow and ice during the snow-clearing season contributing
10 to increased incidents of slippery driving and walking surfaces, and damage to snow clearing
11 equipment. In the spring the areas become very muddy.

12
13 The Industrial Customers submit that this expenditure has not been demonstrated to be necessary
14 by any reasonable measure. The Industrial Customers state that this facility has operated with
15 gravel roads and parking areas for 40 years, with Hydro attributing only \$12,600 of additional
16 maintenance costs in the past five years to the existing condition of these areas. According to the
17 Industrial Customers the breakeven point on this project is many decades which is well within
18 the time frame that further paving would be required. The Industrial Customers submit that this
19 project is not justified on the basis that there is no evidence that the condition of these areas has
20 materially impaired operations at the Bishop's Falls facility.

21
22 The Consumer Advocate also submits that this project is unnecessary and has not been justified
23 by Hydro. According to Consumer Advocate the existing site has been unpaved for 40 years and
24 while Hydro's reasons for the project speak to the desirability of paving, they do not address the
25 necessity of doing so after four decades.

26 In its reply submission Hydro reiterated that the purpose of this project is to provide for a safer
27 and cleaner workplace and to reduce maintenance costs on snow clearing equipment. According
28 to Hydro paved parking lots and roadways are universally recognized by all classes of
29 commercial and industrial enterprises as the norm and good business practice to maintain
30 property cleanliness, facility access, ease snowclearing and maintenance, and to provide
31 convenience to employees, customers, service providers and the public.

32
33 The Board notes that Bishop's Falls is the location of Hydro's primary transmission,
34 transportation and warehouse operations on the Island and serves as the Central Region's main
35 headquarters. The Board does not believe that because this site has operated without pavement
36 for 40 years it should continue to do so. The Board accepts Hydro's position that paved parking
37 lots and roadways are a component of normal and good business practice which provide a
38 measurable benefit to the public and Hydro employees, especially considering the amount of the
39 proposed expenditure. The Board will approve this project as proposed.

40
41 Page B-17 Replace Diesel Units (Norman Bay, Postville and Paradise River): \$169,700

42
43 This proposed project consists of replacement of diesel generating units (gensets) in Norman
44 Bay, Postville, and Paradise River. In Norman Bay two 30 kW units will be replaced with one

1 30 to 50 kW unit and one 30 kW unit and the plant will be automated. In Postville a 150 kW
2 unit will be replaced with a 350 kW unit. In Paradise River a 90 kW unit will be replaced with a
3 25 to 35 kW unit. Hydro justifies these replacements based on operating experience, age of
4 existing units and load.

5
6 The Consumer Advocate did not object to Hydro's proposals to replace the diesel generating
7 units in Norman Bay and Postville. According to the Consumer Advocate while Hydro has
8 emphasized the efficiency gains associated with replacing Unit 2020 in Paradise River, there is
9 no evidence as to how the capital costs associated with replacing this unit compare to the costs of
10 keeping this unit on the system. As a result of this lack of justification the Consumer Advocate
11 recommends against approval of this project at this time.

12
13 In its written submission Hydro states that Unit 2020 is 26 years old and, due to its age, several
14 replacement parts are not available. The existing unit (at 90 kW) is too large for the load it
15 serves which results in the unit being run well below its efficient loading point. According to
16 Hydro, due to problems of fouling and the associated reliability problems that are encountered
17 when diesel units are run for long periods at low loads, this unit has been used sparingly. Hydro
18 submits that replacing this unit with a new lower capacity unit will meet Hydro's generation
19 planning criterion of being able to meet the peak load with the single largest unit out of service.
20 It will also facilitate proper unit load sharing among the diesel units and will assist Hydro in
21 providing least cost electrical service in this community.

22
23 The Board accepts Hydro's evidence that the existing 90 kW Unit 2020 at Paradise River cannot
24 be operated at the optimal level, and that it is 26 years old and as such replacement parts are not
25 available. Hydro is proposing to replace this unit with a smaller unit which will better match the
26 load it is required to serve and will provide for more efficient and proper operation of the diesel
27 units at the site. In the Board's view this is a prudent and cost effective approach. The Board is
28 satisfied that this project should be approved as proposed.

29
30 Page D-41 Install Transformer Storage Ramps (Nain and Cartwright): \$120,600

31
32 This project is to construct transformer storage ramps at Hydro's diesel generating plants in Nain
33 and Cartwright. Currently in Nain the transformers are stored on shipping pallets resting on the
34 ground. In Cartwright the transformers are stored on makeshift ramps that, according to Hydro,
35 are too small and not designed to carry the weight of the transformers.

36
37 The Consumer Advocate argues that this expenditure is unnecessary and should not be approved.
38 According to the Consumer Advocate Hydro's justification of threat of damage to transformers
39 or waste oil drums during snow clearing operations is not a credible argument to justify an
40 expenditure of this magnitude. The Consumer Advocate states that the evidence confirms that
41 such damage has never happened and also notes that Hydro is not under any legislative or
42 regulatory requirement to modify its storage structures. According to the Consumer Advocate
43 transformers in Nain and Cartwright are already stored on ramps which, although not constructed
44 of pressure treated lumber as proposed in the Application, appear to be adequate for the purpose.

1 Hydro states in its submission that the ramps will be properly designed to carry the loads, will
2 store the equipment at the correct heights, and will avoid accidental damage during snow
3 clearing operations. In its submission Hydro states that “...*the identification of an environmental*
4 *risk ought not to wait for an accident to occur in order for the risk, and the project to prevent it,*
5 *to be validated.*” Hydro also notes that the present makeshift storage systems do not comply
6 with Hydro’s considered and well established practice for the storage of this type of equipment at
7 its facilities in other locations on the Island and elsewhere in Labrador.

8
9 The Board is satisfied that this project should be approved as proposed based on the identified
10 environmental risk as well as the other benefits of a properly designed storage facility.

11
12 Page D-62 Install Pole Storage Ramps (Various Sites): \$76,900

13
14 This proposed expenditure involves the construction of two elevated storage ramps for poles at
15 the Nain and Postville diesel plants. According to Hydro storing poles on elevated ramps makes
16 it easier to sort, select and handle different types and lengths of poles, and also prevents early
17 deterioration due to contact with the ground. The ramps are to be constructed to meet federal
18 requirements and, Hydro states, will enable the corporation to be more environmentally friendly.

19
20 The Consumer Advocate raises three issues with this project: i) the project appears to use a very
21 elaborate solution for a fairly simple problem; ii) Hydro plans to propose more such installations
22 in the future; and iii) the project engages policy issues as to the extent to which consumers must
23 pay for projects which are made more costly by reasons of their proffered “environmental”
24 benefits. It was noted that Hydro plans to install these pole storage ramps at 14 diesel plant sites
25 over the next five years at a current budget estimate of \$503,000.

26
27 According to the Consumer Advocate this project raises the question of whether there are any
28 limits as to what customers can be expected to pay for in the name of environmental friendliness,
29 in the absence of environmental regulations which compel a utility to make an expenditure. The
30 Consumer Advocate does not question Hydro’s assertion that storing poles on elevated ramps
31 will make it safe and easier to sort, select and handle different types and lengths of poles, or the
32 assertion that storage ramps will also prevent poles from deteriorating early due to ground
33 contact.

34
35 Hydro states that, while this project has environmental implications it is not an environmental
36 project. Hydro states that the proper storage of poles on ramps provides for easier sorting,
37 selection and handling and ensures that the poles do not deteriorate early due to ground contact.
38 According to Hydro it is responsible and prudent to ensure that, where practicable, projects are
39 carried out in an environmentally responsible manner.

40
41 The Board accepts Hydro’s submission, which was not challenged by the Consumer Advocate,
42 that elevated pole storage ramps will prevent early deterioration due to contact with the ground,
43 which is the present storage configuration and will offer other benefits in the management and
44 handling of the poles. The Board will approve this project as proposed.

1 Page D-67 Construct Transmission Storage Ramps (Bay d’Espoir): \$75,000

2
3 This proposed project is to construct two storage ramps for transformers and waste oil drums at
4 the Camp Boggy pole yard near the main Hydro site in Bay d’Espoir. Transformers are currently
5 stored on shipping pallets resting on the ground or directly on the ground itself. Similarly waste
6 oil drums are stored directly on the ground. Hydro states the current storage method is
7 unacceptable since: i) it makes it difficult to detect leaks; ii) it can contribute to corrosion and
8 leaks in metal containers; iii) it allows transformers and waste oil to be buried under snow which
9 makes them susceptible to damage from snow clearing equipment; and, iv) it increases the
10 environmental risk of spills resulting from damage to the transformer casings and drums. Hydro
11 also states that the existing deteriorated storage platform is 25 years old and can no longer be
12 used to support loads imposed by heavier items such as transformers and oil drums.

13
14 The Consumer Advocate questions the total expenditure, and specifically the labour costs, for
15 this project. According to the Consumer Advocate:

16
17 *“Even if one were to assume an all-inclusive labour cost of \$39.00 per hour, this would*
18 *represent 1,000 person-hours which appears high in order to construct these two 8’ by 32’*
19 *ramps. This would imply that it would take, to illustrate, 4 skilled persons working 40*
20 *hours/week (at \$39.00/hour) a total of more than 6 weeks to attend to this work. If the all-*
21 *inclusive labour cost of \$30.00 per hour was assumed, it would imply that 4 persons working 40*
22 *hours/week would require approximately 8 weeks to complete this work.”*

23
24 Given that cost of installing a transformer ramp in Port Saunders in 2008 was \$15,000 the
25 Consumer Advocate recommends that the Board not approve this expenditure pending a
26 satisfactory explanation from Hydro as to the requirement of a \$75,000 outlay for these two
27 ramps.

28
29 In its written submission Hydro submits that the Consumer Advocate’s calculation of labour
30 costs for the project overlooks the fact that the “labour” cost includes engineering design,
31 inspection, project management and equipment rentals. Hydro also points out that the
32 comparison of this project to the \$15,000 ramp project proposed for Port Saunders in the 2008
33 capital budget is misleading as that project was of a much smaller size. According to Hydro a
34 better comparison is the pole storage ramp installed at Burgeo at a cost of \$43,000.

35
36 The Board is satisfied that this project should be approved as proposed. The Board accepts the
37 clarification provided by Hydro with respect to the calculation of labour costs for the project.
38 The Board also accepts that the comparison of this project cost with the costs of the project at
39 Port Saunders is not appropriate because of the differences in size and scope of projects. The
40 evidence supports Hydro’s argument that the existing storage platform is 25 years old and is
41 deteriorated such that it can no longer support the required loads. As well there are
42 environmental risks associated with possible leaks from transformers and oil drums stored
43 directly on the ground and from damage in the winter when they are buried with snow. The
44 proposed project is in the Board’s view a reasonable and cost effective alternative.

1 **4. Summary of Board Findings**
2

3 The Board will approve all projects in excess of \$50,000 as presented by Hydro in its 2009
4 Capital Budget Application. The Board will also approve Hydro's 2009 capital budget for
5 improvement and additions to its property in the amount of \$47,859,000. This amount consists
6 of expenditures in relation to all approved projects in excess of \$50,000, as well as projects under
7 \$50,000.
8

9 **III. 2007 AVERAGE RATE BASE**

10
11 The following table, taken from Section J of the Application, shows the calculation of the actual
12 average rate base for 2007 compared with 2006:
13

	(\$000s)	
	<u>2007</u>	<u>2006</u>
Capital Assets	\$2,016,315	\$1,976,170
<u>Less:</u>		
Accumulated Depreciation	570,225	536,691
Contributions in Aid of Construction	96,396	93,713
Net Capital Assets	1,349,694	1,345,766
 Balance Previous Year	 1,345,766	 1,345,959
 Average Capital Assets	 1,347,730	 1,345,863
Working Capital	3,496	3,207
Fuel	25,874	24,886
Supplies Inventory	21,669	20,996
Average Deferred Charges	85,746	83,699
 Average Rate Base at Year End	 <u>\$ 1,484,545</u>	 <u>\$ 1,478,651</u>

14
15 Grant Thornton, the Board's Financial Consultants, reviewed the calculation of the 2007 average
16 rate base as contained in Section J of the Application and shown above, and concluded that the
17 calculation is accurate and in accordance with Board Orders and established regulatory practice.
18 In its report Grant Thornton noted the following with respect to deferred charges and rate base:
19

- 20 1. The average deferred charges for 2007 include total expenditures incurred to date of
21 approximately \$11.3 million (\$3.6 million in 2007) relating to the Asbestos Abatement Plan
22 at the HTGS. On Order No. P.U. 2(2005) the Board approved the amortization over a five-
23 year period of the costs associated with this project, estimated to be \$10.4 million including
24 financing costs.
25
26 2. The average deferred charges for 2007 also includes an amount of approximately \$2,043,000
27 related to repairs of a turbine at the HTGS. Hydro treated these costs as an extraordinary

1 repair and has deferred and included these costs in the calculation of rate base. Hydro has
2 applied to the Board for approval of the deferral of these costs. If these costs were to be
3 expensed in 2007 as required by GAAP in the absence of Board approval the adjusted
4 average rate base would be \$1,483,523,500 (a reduction of \$1,021,500) and the regulated
5 return on rate base would be 7.02% (a reduction of 13 basis points).
6

- 7 3. In the 2008 capital budget application Hydro reported an average rate base of \$1,472,184,000
8 for 2006. In 2007 Hydro adjusted this amount to \$1,478,651,000, an increase of \$6,467,000.
9 The reason for this adjustment is that in prior year deferred charges included in the
10 calculation of average rate base did not include certain expenditures relating to the Asbestos
11 Abatement Plan (as approved in Order No. P.U. 2(2005)) and costs associated with the Unit 2
12 boiler tube repairs at the HTGS (approved in Order No. P.U. 44(2006)). The 2006
13 calculation of average rate base has been adjusted to include these items.
14
- 15 4. In prior years costs associated with the issue of long-term debt were included in the
16 calculation of average rate base as part of deferred charges. These costs are now treated as a
17 reduction on long-term debt in accordance with CICA 3855 (Financial Instruments –
18 Recognition and Measurement). The total balance included in average rate base related to
19 these costs in 2006 was \$2.9 million.
20

21 In Order No. P.U. 31(2008) the Board denied Hydro's application for approval to defer
22 \$2,043,000 of major extraordinary repairs associated with repairs to a turbine at the HTGS. As a
23 result the 2007 average deferred charges must be reduced by this amount. The impact on the
24 2007 average rate base of the adjustment to 2007 deferred charges was calculated by Grant
25 Thornton to be a reduction of \$1,021,500 in the 2007 average rate base.
26

27 In Order No. P. U. 30(2007) the Board fixed and determined the average rate base for the year
28 ending December 31, 2006 at \$1,472,184,000. Grant Thornton has noted that Hydro has, in the
29 current Application, increased this amount by \$6,467,000 in order to correct a prior period error
30 in the 2006 verage Deferred Charges.
31

32 Hydro's treatment of the error in the 2006 Average Deferral Charges and the denial of Hydro's
33 application to defer the costs of the 2007 Unit 2 turbine repairs will impact the calculation of the
34 2007 average rate base proposed by Hydro. Without confirmation by Hydro that the numbers
35 proposed accurately reflect these changes the Board will not fix the 2007 average rate base.
36 Hydro may file an application with supporting calculations requesting that the Board fix and
37 determine the revised average rate base for both 2006 and 2007.

1 **IV ORDER**

2
3 **IT IS THEREFORE ORDERED THAT:**

- 4
- 5 **1. Pursuant to Section 41 of the *Act*, Hydro’s proposed capital purchases and construction**
 - 6 **projects in excess of \$50,000 are approved, as set out in Schedule A to this Order.**
 - 7
 - 8 **2. Pursuant to Section 41 of the *Act*, the 2009 Capital Budget for improvements and**
 - 9 **additions to Hydro’s property in an amount of \$ 47,856,000 is approved.**
 - 10
 - 11 **3. Pursuant to Section 41 of the *Act*, the 2009 lease in the amount \$6,720 is approved.**
 - 12
 - 13 **4. Unless otherwise directed by the Board, Hydro shall file an annual report to the Board**
 - 14 **on its 2009 capital expenditures by March 1, 2010.**
 - 15 **5. Unless otherwise directed by the Board Hydro shall provide, in conjunction with the**
 - 16 **2010 Capital Budget Application, a status report on the 2009 capital budget**
 - 17 **expenditures showing for each project:**
 - 18
 - 19 **(i) the approved budget for 2009;**
 - 20 **(ii) the expenditures prior to 2009;**
 - 21 **(iii) the 2009 expenditures to the date of the application;**
 - 22 **(iv) the remaining projected expenditures for 2009;**
 - 23 **(v) the variance between the projected total expenditures and the approved**
 - 24 **budget; and**
 - 25 **(vi) an explanation of the variance.**
 - 26
 - 27 **6. Hydro shall pay all costs and expenses of the Board incurred in connection with the**
 - 28 **Application.**

Dated at St. John's, Newfoundland and Labrador this 23rd day of December 2008.

Andy Wells
Chair and Chief Executive Officer

Darlene Whalen, P.Eng.
Vice-Chair

Dwanda Newman, LL.B.
Commissioner

Cheryl Blundon
Board Secretary

NEWFOUNDLAND AND LABRADOR HYDRO
2009 CAPITAL BUDGET
PROJECTS OVER \$50,000 - APPROVED EXPENDITURES

	<u>2009</u>	<u>Future</u> <u>Years</u>
		(\$000)
GENERATION	7,400	3,095
TRANSMISSION AND RURAL OPERATIONS	28,673	13,574
GENERAL PROPERTIES	9,385	1,185
CONTINGENCY FUND	<u>1,000</u>	<u>-</u>
TOTAL PROJECTS OVER \$50,000	<u>46,458</u>	<u>17,854</u>

NEWFOUNDLAND AND LABRADOR HYDRO
2009 CAPITAL BUDGET
PROJECTS OVER \$50,000
GENERATION

PROJECT DESCRIPTION	2009	Future	Application
		Years	Page
			Reference
		(\$000)	
Refurbish Fuel Storage Facility - Holyrood	2,867	-	B-2
Replace Unit 2 High Pressure Heater - Holyrood	919	-	
Purchase Spare Stator Winding Units 1 to 4 - Bay d'Espoir	37	2,806	B-4
Replace Governor Controls Unit 2 - Cat Arm	74		
Replace Unit 3 Steam Seal Regulator - Holyrood	475	-	C-2
Upgrade Gas Turbine Plant Life Extension - Hardwoods	450	-	C-12
Replace 50 kW Diesel Generator - Bay d'Espoir	36	289	C-13
Replace Unit 2 Air Preheater Cold End - Holyrood	320	-	C-19
Replace Cooling Water Systems on Units 3 and 4 - Bay d'Espoir	287	-	C-30
Upgrade Intake Gate Controls - Hinds Lake	263	-	C-37
Replace 40 kW Diesel Generator at Spillway - Bay d'Espoir	103	-	
Replace Automatic Voltage Regulator on Gas Turbine - Stephenville	262	-	C-45
Install Meteorological Stations - Various Sites	253	-	C-50
Replace Unit 1 Hydrogen Emergency Vent Valves - Holyrood	214	-	C-57
Install Unit 1 Cold Reheat Condensate Drains and HP Heater Trip Level - Holyrood	192	-	D-3
Install Motorized Stack Winches - Holyrood	174	-	D-7
Environmental Effects Monitoring Study of Waste Water - Holyrood	87	-	
Replace Service Water Piping - Unit 7 - Bay d'Espoir	144	-	D-9
Install Marine Terminal Capstan Lifting Frame - Holyrood	93	-	D-12
Purchase Boom Style Hydraulic Lift - Holyrood	82	-	D-14
Replace Generator Oil Level System on Units 1 and 2 - Cat Arm	68	-	D-15
TOTAL GENERATION APPROVED	7,400	3,095	

**NEWFOUNDLAND AND LABRADOR HYDRO
2008 CAPITAL BUDGET
PROJECTS OVER \$50,000
TRANSMISSION AND RURAL OPERATIONS**

PROJECT DESCRIPTION	2009	Future Years	Application Page Reference
	(\$000)		
New 25 kV Terminal Station - Labrador City	283	9,707	B-6
Upgrade Distribution Sytems - All Service Areas	2,526	-	B-7
Provide Service Extensions - All Service Areas	2,439	-	B-11
Perform Wood Pole Line Management Program - Various Sites	2,256	-	B-13
Upgrade Transmission Line TL-212 - Sunnyside to Linton Lake	968	964	B-15
Replace Insulators on 230 kV Line - Stony Brook, Buchans	970	-	
Upgrade Corner Brook Frequency Converter - Corner Brook	1,152	-	
Replace Diesel Units - Norman Bay, Postville and Paradise River	170	1,700	B-17
Replace Diesel Units - Norman Bay, Cartwright and Black Tickle	938	-	
Diesel Plant Automation - Makkovik and Rigolet	379	-	
Replace Accommodations, Septic System and Upgrade Plant Communications System - Cat Arm	1,254	-	B-19
Replace Insulators - Jackson's Arm, Hampden and Little Bay	874	-	B-21
Increase Generation - L'Anse au Loup	23	821	B-22
Increase Generation Capacity - Charlottetown	577	-	
Replace Switchgear - Cartwright	169	-	
Replace Off Road Tracked Vehicles - Whitbourne and Bishop's Falls	758	-	B-24
Replace Poles - Jackson's Arm and Hampden	697	-	B-25
Upgrade L7 Distribution System - St. Anthony	689	-	B-27
Upgrade Power Transformers - Various Sites	654	-	B-28
Replace Light Duty Moble Equipment Less than \$50,000 - Various Sites	561	-	B-29
Perform Grounding Upgrades - Various Sites	252	291	B-30
Construct New Office/Warehouse/Line Depot Facility - Happy Valley	2,960	-	B-40
Replace Line L36 - Wabush	498	-	C-66
Construct Transmission Line Equip Off-Loading Areas - Various Sites	498	-	C-74
Install Automatic Meter Reading - Change Islands and Fogo Island	491	-	C-87
Install Digital Fault Recorders - Massey Drive, Oxen Pond and St. Anthony	462	-	C-96
Build New Maintenance Shop - St. Anthony	429	-	C-103
Upgrade Circuit Breakers - Various Terminal Stations	422	-	C-110
Replace Insulators - Various Terminal Stations	391	-	C-118
Replace Conductor on Line 2 - Rocky Harbour	325	-	C-124
Install Fall Arrest Equipment - Various Sites	322	-	C-130
Replace Explosives Storage Magazines - Various Sites	293	-	C-137
Replace 69 kV Breaker L51T2 - Howley	199	-	D-17
Upgrade Great Northern Peninsula Protection - Various Sites	101	91	D-20
Upgrade Voltage Conversion Phase 1 - Labrador City	189	-	D-26
Upgrade Ventilation System - Little Bay Islands Diesel Plant	186	-	D-28
Pave Parking Lots and Roadways - Bishop's Falls	150	-	D-30
Upgrade Fuel Storage - Cartwright	139	-	D-31
Replace Recloser Control Panels - Various Sites	132	-	D-33
Replace Speed Increaser - Roddickton	125	-	D-36
Purchase and Install Voltage Regulator Bank - English Harbour West	123	-	D-38
Install Transformer Storage Ramps - Labrador	121	-	D-41
Replace Instrument Transformers - Various Sites	107	-	D-44
Replace 230 kV Breaker Controls - Oxen Pond, Bay d'Espoir	100	-	D-46
Purchase and Install Electronic Recloser - Cartwright	96	-	D-48
Replace Submarine Cable Terminator Kit - Change Islands/Fogo Island	96	-	D-50

NEWFOUNDLAND AND LABRADOR HYDRO
2008 CAPITAL BUDGET
PROJECTS OVER \$50,000
TRANSMISSION AND RURAL OPERATIONS (Continued)

PROJECT DESCRIPTION	2009	Future	Application
		Years	Page
			Reference
		(\$000)	
Replace Air Compressors - Sunnyside	96	-	D-51
Purchase High Definition Infrared Camera - Central	87	-	D-53
Construct ATV/Snowmobile Storage Building - Whitbourne	86	-	D-55
Install Waste Oil Storage Tanks - Mary's Harbour	84	-	D-57
Replace Drainage System - Western Avalon	84	-	D-59
Replace Surge Arrestors - Various Sites	81	-	D-60
Install Pole Storage Ramps - Various Sites	77	-	D-62
Install Water and Sewage System - Paradise River	77	-	D-65
Construct Transmission Storage Ramps - Bay d'Espoir	75	-	D-67
Install 138 kV Capacitive Voltage Transformer - St. Anthony Airport	71	-	D-69
Install 69 kV Capacitive Voltage Transformer - St. Anthony Diesel Plant	67	-	D-71
Install Remote Ice Growth Detector Beams - Various Sites	65	-	D-73
Install Meter Station for Fuel Reconciliation - Hawke's Bay	64	-	D-75
Install Furnace Fuel Storage Tank - Williams Harbour	59	-	D-77
Legal Survey of Primary Distribution Line Right of Way - Various Sites	56	-	D-78
TOTAL TRANSMISSION AND RURAL OPERATIONS APPROVED	<u>28,673</u>	<u>13,574</u>	

**NEWFOUNDLAND AND LABRADOR HYDRO
2009 CAPITAL BUDGET
PROJECTS OVER \$50,000
GENERAL PROPERTIES**

PROJECT DESCRIPTION	2009	Future Years	Application Page Reference
		(\$000)	
Replace Vehicles and Aerial Devices - Various Sites	2,156	-	B-31
Upgrade System Security - Various Sites	767	702	B-32
Energy Conservation Upgrades - Hydro Place	833	-	B-34
Purchase Spare Transformer - Hydro Place	353	-	
Public Address System - Holyrood	1,182	-	
Customer Service Application - Hydro Place	182	-	
Replace Batteries and Chargers - Various Sites	729	-	B-36
Install Fibre Optic Cable - Hinds Lake	209	483	B-38
End User Evergreening Program - Various Sites	491	-	C-144
Replace Power Line Carrier on TL-250 - Bottom Brook to Grandy Brook	473	-	C-149
Replace Remote Terminal Units - Various Sites	278	-	C-155
Upgrade Server Technology Program - Hydro Place	273	-	D-80
Cost Recovery CF(L)Co	(79)	-	
Replace Radio Tower - Ebbegunbaeg	179	-	D-85
Replace Peripheral Infrastructure - Hydro Place	161	-	D-88
Replace Network Communications Equipment - Various Sites	141	-	D-90
Replace Drafting Scanner/Plotter - Hydro Place	139	-	D-92
Replace Radomes - Various Sites	130	-	D-94
Applications Enhancements - Performance Management			
Software Budgeting Tool - Hydro Place	127	-	D-96
Corporate Application Environment - Upgrade Showcase			
Strategy Suite - Hydro Place	158	-	D-98
Cost Recovery CF(L)Co	(46)	-	
Replace Fire Protection Panels - Hydro Place	89	-	D-100
Security Smartcard and Disk Encryption for Laptops - Hydro Place	125	-	D-101
Cost Recovery CF(L)Co	(36)	-	
Application Enhancements - Perform Minor Applications			
Enhancements - Hydro Place	120	-	D-105
Cost Recovery CF(L)Co	(35)	-	
Citrix Enhancements - Hydro Place	118	-	D-107
Cost Recovery CF(L)Co	(34)	-	
Replace Humidifiers in Air Handling Units - Hydro Place	74	-	D-109
Purchase Test Equipment - Various Sites	74	-	D-111
Purchase Protection Relay Event Report Software - Hydro Place	54	-	D-113
TOTAL GENERAL PROPERTIES APPROVED	9,385	1,185	

Newfoundland & Labrador

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