BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

IN THE MATTER OF THE

2013 CAPITAL BUDGET APPLICATION PHASE II

FILED BY

NEWFOUNDLAND AND LABRADOR HYDRO

DECISION AND ORDER OF THE BOARD

ORDER NO. P.U. 4(2013)

BEFORE:

Andy Wells
Chair and Chief Executive Officer

Darlene Whalen, P.Eng. Vice-Chair

> James Oxford Commissioner

NEWFOUNDLAND AND LABRADOR BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

AN ORDER OF THE BOARD

NO. P.U. 4(2013)

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

and

IN THE MATTER OF an application by Newfoundland and Labrador Hydro for an order:

- (a) approving its 2013 capital budget;
- (b) approving its 2013 capital purchases and construction projects in excess of \$50,000;
- (c) approving the estimated contributions in aid of construction for 2013; and
- (d) fixing and determining its average rate base for 2011.

BEFORE:

Andy Wells Chair and Chief Executive Officer

Darlene Whalen, P. Eng. Vice-Chair

James Oxford Commissioner

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I BACKGROUND

1. Application

Newfoundland and Labrador Hydro ("Hydro") filed its 2013 Capital Budget Application (the "Application") with the Board of Commissioners of Public Utilities (the "Board") on August 8, 2012 requesting that the Board make an Order:

- (i) approving its 2013 Capital Budget of \$66,144,800;
- (ii) approving 2013 capital purchases and construction projects in excess of \$50,000;
- (iii) approving the estimated contributions in aid of construction for 2013 of approximately \$400,000; and
- (iv) fixing and determining its average rate base for 2011 in the amount of \$1,493,218,000.

Notice of the Application was published beginning on August 11, 2012. The Application and related documentation was available for viewing on the Board's website. Notices of intention to participate were filed by Hydro's Island Industrial Customers - Corner Brook Pulp and Paper Limited, North Atlantic Refining Limited, and Teck Resources Limited (the "Industrial Customers"), the Consumer Advocate, Mr. Thomas Johnson (the "Consumer Advocate"), and Newfoundland Power Inc. ("Newfoundland Power").

2. Phase I/Phase II Orders

 Hydro's 2013 Capital Budget was considered in two phases due to delays and extensions in evidentiary filings. Phase I consisted of projects to which there was no objection by the Intervenors. With the consent of the parties the Board agreed to consider those projects and associated expenditures on an expedited basis to permit Hydro to proceed with its 2013 capital program. Order No. P.U. 2(2013) was issued for Phase I projects on January 23, 2013, approving: i) certain projects to be completed in 2013 totaling \$29,205,500; ii) certain multi-year projects starting in 2013 with projected expenditures of \$6,199,800 for 2013 and further expenditures in subsequent years; and iii) an Allowance for Unforeseen Items of \$1,000,000.

This Phase II Decision and Order deals with all outstanding issues arising from the consideration of Hydro's 2013 Capital Budget and not addressed in Order No. P.U. 2(2013), including the 2013 Capital Budget, remaining capital purchases and projects in excess of \$50,000, the estimated contributions in aid of construction for 2013, and the fixing and determining of Hydro's average rate base for 2011. As well, there were other substantive issues raised by the Intervenors which are addressed in this Phase II Decision and Order, including Hydro's non-compliance with Order No. P.U. 5(2012) with respect to the requirement to file a capital spending overview for the Holyrood

40 Thermal Generating Station.

II PHASE II 2013 CAPITAL EXPENDITURES

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1. Overview

Hydro's proposed 2013 capital budget as filed is \$66,144,800. By letters dated December 18, 2012 and January 7, 2013 Hydro withdrew five projects associated with the Holyrood Thermal Generating Station ("Holyrood") as follows:

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9	Upgrade Governor Controls on Units 1 and 2	
10	Upgrade Vibration Monitoring Equipment	
11	Install Cold-Reheat Condensate Drains and	
12	High Pressure Heater Trip Level Unit 3	
13	Install Fire Protection Upgrades	
14	Rewind Generator Units 1 and 2	
15	Total	

\$267,200 \$1,107,600 **\$3,400,200**

\$50,000

\$1,455,500 \$519,900

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The revised 2013 capital budget is \$62,744,600. In Order No. P.U. 2(2013) the Board approved certain Phase I 2013 capital projects with an associated capital expenditure of \$36,405,300. The remaining capital projects and expenditures to be considered in Phase II total \$26,339,300.

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2013 Capital Budget (\$000)	
2013 Proposed Capital Budget as per Application	\$66,144.8
Projects withdrawn by Hydro	(3,400.2)
Revised 2013 Capital Budget	\$62,744.6
Phase I 2013 single-year projects approved*	(30,205.5)
Phase I 2013 multi-year projects starting in 2013 approved	(6,199.8)
Phase II proposed capital project expenditures	\$26,339.3

21 22 23 *Includes Allowance for Unforeseen Items

The Phase II capital projects comprise projects over all asset classes and include single-year projects to be completed in 2013 as well as projects to start in 2013 with expenditures in future years.

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2013 Capital Budget – Phase II (\$000)			
Generation	\$6,600.5		
Transmission and Rural Operations	3,788.4		
General Properties	936.0		
Total Phase II single-year projects over \$50,000	\$11,324,9		
Multi-year (2013 Expenditures)			
Multi-year projects commencing prior to 2013	10,518.8		
Multi-year projects commencing in 2013	3,553.0		
Total 2013 projects under \$50,000	942.6		
Total Phase II capital projects	\$26,339.3		

2. Phase II Capital Projects Over \$50,000

The Board has reviewed the proposed Phase II capital projects in excess of \$50,000, including the Phase II multi-year projects to commence in 2013, the reports filed in support, the additional information filed by Hydro in response to RFIs, and the final submissions. The Board has completed its own independent examination and analysis of the projects proposed by Hydro in Phase II. The Board is satisfied all the projects, with the exception of those projects contested by the Intervenors and addressed specifically below, are adequately justified and are appropriate and necessary in the circumstances.

Complete Condition Assessment Phase 2 (Year 2) - \$1,170,200

This project is the second year of Phase 2 of a condition assessment and life extension program. Phase 1 began in 2009 and was completed in March 2011. Phase 2 is a three-year project which started in 2012. In 2013 the proposed work includes detailed internal investigation on selected equipment/systems identified in Phase 1 to determine the actions required to ensure that the safe and reliable operation of Holyrood will be maintained into the future with consideration to the plant's projected operating requirements. A capital expenditure of \$1,215,700 was approved for this project in Order No. P.U. 5(2012).

The Industrial Customers submit that this project is an example of a very substantial proposed capital expenditure which will have limited utility after the conversion of Holyrood to synchronous condenser load in 2017. As well the Industrial Customers state: "What is also troubling is that this expensive project is being proposed in the absence of a comprehensive overview in relation to proposed capital expenditures at Holyrood as was supposed to have been filed as part of the 2013 Application pursuant to P.U. 5(2012)." The Industrial Customers argue that any consideration of this project should be postponed until such time that Hydro is in compliance with Order No. P.U. 5(2012).

The Consumer Advocate and Newfoundland Power did not comment on this project.

The Board notes that this project has been considered as part of annual capital budget approvals since 2008. The project was first proposed as part of Hydro's 2007 Capital Budget Application but was not approved on the basis of insufficient detail and supporting information. Following further applications for the project in 2008 and 2009 the Board, in Order No. P.U. 28(2009), approved a capital expenditure of \$1,895,000 for a Phase 1 condition assessment and life extension study for the Holyrood Thermal Generating Station. Hydro filed its report *Condition Assessment and Life Extension Study Phase 1* on May 2, 2011.

 In Order No. P.U. 5(2012) the Board approved a proposed capital expenditure of \$1,215,700 for the first year of the Phase 2 condition assessment and life extension study. In the 2012 Capital Plan filed with the 2012 Capital Budget Application (pg. 16) Hydro stated in relation to the Phase 2 study:

 "The study is being performed in phases to ensure that the scope and progress of the work matches the progress of the Lower Churchill project so that only necessary expenditures are made. Hydro will continue to periodically report to the Board on progress and will seek approval for the proposed scope of successive phases of the assessment as the work advances."

In the report filed with the 2013 Application Hydro states (pg. 4):

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"Hydro has targeted selected items in that report to form part of the work for Phase 2 and believes these items to be first priority and require action over a three year period. In general, the items pertain to safety and reliability related to the steam systems at the plant, and reliability and life extension related to synchronous condensing systems. During the third year of the initiative, the operating forecast for the Holyrood plant will be reviewed and it will be determined what additional condition assessment and life extension work should be pursued as Phase 3 of the condition assessment and life extension program."

 The Board finds this approach to be reasonable and prudent, especially in the context of the uncertainty in recent years surrounding the future operation of the Holyrood Thermal Generating Station. With the decision to proceed with Muskrat Falls confirmed the future operating regime for Holyrood can be considered as part of the planning for additional condition assessment and life assessment work to be completed in 2014 and in future years. The Board expects this information to be included in the 2014 capital budget documentation, both as part of the overview of Holyrood proposed capital expenditures and to support any further expenditures for this project. This project will be approved.

Install Backup System for Raw Water Supply and Clarifier- \$955,600

This project involves the installation of a secondary water supply system and a bypass line around the existing clarifier at the Holyrood Thermal Generating Station. According to Hydro this project will ensure that business continuity is achieved on the raw water supply and the clarification process at Holyrood through the provision of backup systems. With the completion of this project Hydro states that business continuity plans will be in place for all key processes at Holyrood that pose a high risk for causing the plant's Maximum Acceptable Down Time to be exceeded.

The Consumer Advocate notes that Hydro has been operating without a backup raw water system for decades and that there are no known operational issues with the current system. The Consumer Advocate also notes that, while Hydro states in the case of a breakdown of the current system it could take 3 to 4 weeks to locate and address a failed section, Hydro has not investigated whether technologies exist which would help facilitate locating a failure. Hydro advises it will investigate this issue as part of the Phase I condition assessment. (IC-NLH-24) The Consumer Advocate also points out that Hydro has not made itself aware of what other utilities have done in terms of a back-up raw water supply. (CA-NLH-19) The Consumer Advocate submits that this project should be deferred to allow further investigation by Hydro on technologies for locating failures quickly, and states that at this stage this project is at best premature.

The Industrial Customers argue that in the period leading up to 2017 the asserted benefit of this project must be weighed against the small risk of failure of the water supply and the fact that Hydro has not investigated other means of mitigating this risk. The Industrial Customers suggest that this project has not been supported and should be denied.

Newfoundland Power did not comment on this project.

In its reply submission Hydro states that a reliable and uninterrupted supply of fresh water is essential to the operation of Holyrood and that this project is proposed as a result of concern raised by its external risk management consultant. The requirement for raw water and clarifier facilities

will be sustained through to the time that Holyrood is used as a synchronous condenser only. Hydro also states that it did not seek the experience of other utilities because Holyrood is unique in regard to its close proximity to its fresh water resource. Hydro submits "...these matters are site specific and some aspects and solutions do not lend themselves to a comparative approach." Hydro also states that alternative designs were considered and were deemed to be cost prohibitive.

The Board is satisfied that this project should be approved as proposed. The fact that Hydro has been operating without such a system for decades, as noted by the Consumer Advocate, does not mitigate against the risks of failure identified by its external risk management consultant. The Holyrood Thermal Generating Station will be critical in meeting baseload requirements for the Island Interconnected System in the immediate term until new generation is available. The anticipated useful life of the raw water backup system and the bypass on the clarifier is forecast to extend beyond 2020 (when the plant will switch to synchronous condensing operation) for fire protection, water treatment and cooling, and domestic water requirements. (PUB-NLH-18) The Board also notes that Hydro did consider alternative design approaches which were rejected on the basis of higher cost.

Wood Pole Line Management Program - \$2,466,700

Hydro proposes the continuation of this comprehensive pole inspection and testing program which consists of conventional sound and bore methods supplemented with Non Destructive Evaluation (NDE), periodic full scale tests of poles removed from service, and remedial treatment application. The program is based on two 10-year inspection cycles beginning in 2005. It provides an annual report to identify problem areas for the regional asset managers and to develop recommendations for appropriate pole replacements, as well as other components in the following years.

As with previous capital budgets Hydro justifies this project based on previous pole inspections which indicate that almost half the poles sampled did not meet the minimum preservative retention levels and the fact that full scale pole tests of selected poles completed at Memorial University since 1999 indicate a 25 percent reduction of average pole strength over a 35-year period. According to Hydro, "when combined these facts justify the strong need for a well managed pole inspection and treatment program that detects and corrects any dangerous poles in the system which will ensure safety as well as reliability."

In Order No. P.U. 2(2012) at pg. 18 the Board stated in relation to this program:

"However, given that the program has been in place for six years, the Board is of the view that there should be sufficient data and experience to provide a more comprehensive report on the benefits of the program to ratepayers. This report should provide evidence of, for example, results of non-destructive testing undertaken to date, whether the program has met the stated objective of deferring replacement of assets, if the program has resulted in improved reliability of the system, and what the current best practice is in other jurisdictions with respect to wood pole asset management. The Board will approve this project for 2012 but will require additional demonstrable evidence of the actual and expected long-term benefits of the program in the 2013 capital budget application."

 In response to Order No. P.U. 2(2012) Hydro filed a report Review of Current WPLM Program, Interim Report.

The Industrial Customers argue that it would be appropriate to order a pause in this program before another inspection cycle (at a cost of millions of dollars) is embarked upon. The Industrial Customers contend that Hydro's lack of progress in refining its techniques for collecting data and in refining its analysis of the data arising from the program is surprising and of significant concern. According to the Industrial Customers a pause in the program would give Hydro the opportunity to focus upon and remedy the problems with its NDE testing and analysis, and to consider how a more focused approach on transmission lines which are known, historically, to be susceptible to structural failures could be developed.

The Consumer Advocate and Newfoundland Power did not comment on this project.

In its reply submission Hydro argues that the program has been successful in extending the average lives of poles by ten years and in avoiding pole failures during severe storm events, resulting in savings to ratepayers. Hydro also notes that the costs of the program are a small fraction of the cost of the asset. With respect to the Industrial Customers' suggestion that Hydro should target only those lines shown to statistically require attention, Hydro states that this "misses the point of a program such as this". According to Hydro it is the diligent and comprehensive approach to the wood pole transmission lines that has caused the success to date and the Industrial Customers' proposed approach would achieve some short-term program cost savings but would jeopardize the value and reach of this successful program.

The Board acknowledges the costs associated with the wood pole line management program, both historical and projected, but remains convinced of the value of this program. The information contained in the report filed in response to Order No. P.U. 2(2012) confirms that the program is increasing effective average pole life, which results in deferral of pole plant asset replacement and associated costs. This was one of the reasons the Board approved this program as part of Hydro's 2005 capital budget application. The report (pgs. B6-B7) also shows that the reliability of the system has improved since the program was put in place although it is difficult, based on the limited information provided, to ascertain whether there is a direct causation link with the program or whether other factors may have also contributed to the reduced outages. The Board also notes that Hydro is working to address the data issues identified in its report.

The Board is not persuaded that there should be a pause in this program at this stage. The Board will approve this program for 2013 as proposed. Hydro should incorporate the information contained in the review report filed in response to Order No. P.U. 2(2012) into the project documentation filed with the annual capital budget application, with updates as appropriate. In addition Hydro should include an update of its progress in addressing the data/testing issues raised with respect to the weak correlation of the NDE data with full scale test data.

Replace Automatic Transfer Switches Hind's Lake - \$314,700

This project involves the replacement of two automatic transfer switches at the Hind's Lake Hydroelectric Generating Station. The existing switches were installed in 1980 and, since that time, Hydro states that they have deteriorated and become unreliable with maintenance becoming more costly due to the need for custom manufacture of components. Failure of the automatic transfer switch in its operation would result in a high probability of plant outage, reducing power availability to the Island Interconnected System. Hydro states that the existing automatic switches have had multiple failures over the last ten years, even though the switches are operated

infrequently. With each failure manual intervention is required to transfer the essential systems to backup supply. According to Hydro the switches are a critical system that must operate properly once initiated as they are needed to maintain power supply to the essential electrical systems within the generating station.

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The Consumer Advocate argues that the root failures outlined by Hydro have all been addressed and points out that, since 2005, only \$500 has been spent on the repairs of the system. (CA-NLH-49) He also notes that the last documented failure of the switches was on April 28th, 2009. The Consumer Advocate submits that, given the low cost of repairs to date, the limited reported failures, and the low priority assigned to this project by Hydro (42nd on its priority list), this project should not be approved at this time.

The Industrial Customers also point to the low number of recorded failures and associated low repair expenditure as well as little (or no) documented loss of generating capability experienced. The Industrial Customers submit that this project has not been justified by Hydro and should not be approved.

Newfoundland Power did not comment on this project.

In its reply submission Hydro states that this project is required to ensure that a reliable means of connecting to a back-up power supply is available when needed. According to Hydro the present system is not reliable, has failed on a number of occasions and requires replacement. Hydro also points out that, in event of a switch malfunction, an operator is required to manually operate a breaker with the breaker door open, exposing the operator to an arc flash which is an unacceptable worker risk.

The Board is satisfied that this project should be approved as proposed. While acknowledging the submissions of the Consumer Advocate and the Industrial Customers with respect to the low failure rate and repair costs to date, the Board accepts Hydro's concerns regarding the reliability and maintenance challenges for the existing switches and the worker risk associated with the manual operation of the transfer switch in the event of a failure.

Upgrade Public Safety Around Dams and Waterways Bay D'Espoir - \$298,100

Hydro states that this project is required to comply with the Canadian Dam Association Guidelines pertaining to public awareness of safety around dams and associated waterways. During the 2011 public safety audit of the Long Pond Reservoir the consultant identified a number of safety gaps in the form of inadequate control measures warning the public of potential safety hazards. According to Hydro the accepted standard for proper control measures has evolved in light of incidents over the past ten years at other utilities and, as such, the original design of the Bay d'Espoir system did not address these measures. The scope of the project involves the installation of three safety booms and signage and fencing improvements.

The Consumer Advocate notes that overseeing dam safety will be a continued responsibility for Hydro as the owner of these structures. He also notes that, despite having approximately 90 dams, Hydro does not have specific expertise to perform dam assessments and has chosen to follow the Ontario Power Generation Model for overseeing dam safety. The Consumer Advocate submits that Hydro has not provided any cost-based justification as to why Hydro is not developing its own

expertise to perform dam assessments rather than continuing to rely on outside consultants and that funding for this project should be deferred until Hydro justifies this project on a cost basis.

The Industrial Customers take issue with the component of the proposed project related to the installation of three safety booms at a cost of \$145,000. Noting the risk assessment finding related to the "potential for boats to travel from Bay d'Espoir up to the power houses", the Industrial Customers suggest that the dam facility at Bay d'Espoir has been in existence for over forty years without any apparent incident of concern. The Industrial Customers submit that this project has not been justified in terms of the proposed safety boom expenditures and that this portion of the project should be denied.

Newfoundland Power did not comment on this project.

Hydro submits that the Industrial Customers' suggestion that it should rely on local knowledge as a means of ensuring public safety around a hydroelectric facility "touches upon the absurd." Hydro further states:

"There is no doubt that some of the people who use the reservoir for boating or other recreational purposes are very familiar with the site due to their long experience. However, it would be dangerous and foolhardy to assume that the only people using the site would be those who have learned the risks through long experience with the facility and that all of these people would have a full appreciation of the dangers."

In regards to the Industrial Customers' assertion that there have been no apparent incidents of concern in the last forty years with the dam facility, Hydro states that this "might very well be the result of nothing more than good fortune." Hydro further states that waiting until an accident has occurred before installing safety protection is an abdication of moral and legal responsibility and points to s. 37(1) of the Act which gives clear direction to a utility to provide service and facilities which are reasonably safe and adequate and just and reasonable.

The Board agrees with Hydro that this project is justified on the basis of safety and that this project should be approved as proposed. The deficiencies were identified as part of a public safety audit conducted by an independent third party and, in the Board's view, should be addressed.

Replace Auto Greasing Systems Units 1 and 3 Bay d'Espoir - \$260,100

This project involves replacement of the auto greasing systems on Units 1 and 3 at the Bay d'Espoir Hydroelectric Generating Facility. The auto greasing system provides grease to key turbine components. Hydro justifies this project on the basis of the need to upgrade existing equipment, installed in the mid-1960s, to decrease the number and frequency of maintenance problems.

 The Industrial Customers note that Hydro has ranked this project as priority #28 with a "medium" priority rating (IC-NLH-7) and also that Hydro has documented only one outage (Unit 3 for 7 hours, 30 minutes) resulting from a fault that can be attributed to the auto greasing systems. The Industrial Customers submit that, given the apparent reliability of the system, the low priority allocated to the project by Hydro, and the fact that the system has arguably not yet reached the end of its useful life, Hydro has failed to demonstrate that this project is required.

The Consumer Advocate and Newfoundland Power did not comment on this project.

In its reply submission Hydro reiterated that the existing turbine greasing system is approximately 50-years old and noted that, while there has been only one outage attributable to this system, there have been 63 related work order events. Other issues include difficulties in obtaining parts and compatibility issues with some of the parts, as well as problems associated with the copper piping and the mixing of different grease types, in particular the environmentally friendly canola-based grease used today. Hydro submits that, although the probability is low, a failure of the system could result in considerable damage to a unit.

The Board is satisfied that this project should be approved as proposed. The existing system is aged and, in the Board's view, has reached the end of its useful life. A failure could result in significant damage on one or both of the units. The system should be replaced to ensure continued reliability of the Island Interconnected System.

Install Online Vibration Monitoring System, Corner Brook Frequency Converter - \$382,800

Hydro proposes to install a micro-processor based vibration monitoring system at the Corner Brook Frequency Converter. The system will provide real time vibration monitoring, diagnostics and protection for the converter. Hydro states that similar systems have been installed at the Holyrood Thermal Generating Station and the Stephenville and Hardwoods Gas Turbines. Hydro justifies this project on the basis of early detection of issues and shortened response time, which will minimize the amount of machine deterioration, enhance maintenance and outage planning, and improve safety and quality performance. Hydro provided a copy of the report *Maintenance Strategy Report Corner Brook Frequency Converter*, dated March 2, 2011, which recommended that a unit of such complexity should have a vibration system with both alarming and tripping capabilities.

The Consumer Advocate argues that there is little justification for this project at this time and that this project should not be approved. He states that work completed on the frequency converter in 2008 caused vibrations to escalate and that this was subsequently addressed in 2010 with alignment. According to the Consumer Advocate there is also no cost analysis provided of the proposed system in comparison to manual monitoring, which has served Hydro since implementation and which can be increased if required.

The Industrial Customers initially objected to this project on the basis of insufficient justification by Hydro but advised by letter on January 14, 2013 that, based on the subsequent information provided by Hydro, they were withdrawing their objection.

Newfoundland Power did not comment on this project.

In its reply submission Hydro noted that this asset is specifically assigned to Corner Brook Pulp and Paper Limited, which means that the capital costs will be recovered from this Industrial Customer solely in the form of increased specifically assigned charges to be proposed in a general rate application. This also applies to any increase in operating and maintenance costs. The asset is over 50 years old and is unattended while operating so that, without a vibration detection system, vibration issues can be detected only on a spot check basis. Undetected vibration issues can result in costly repairs and outages. Hydro submits that the project is prudent and is required to provide

continuous reliable operation of the frequency converter.

The Board accepts Hydro's submission on this project. The proposed system is comparable with systems already installed on other generating units on the Island Interconnected System and will provide monitoring along with alarming and tripping capabilities. The Board notes that the costs associated with this project will be specifically assigned to Corner Brook Pulp and Paper and that the Industrial Customers do not object to the project or expenditure.

Install Washrooms Various Sites - \$250,900 (2013), \$1,319,000 (2013-2017)

Hydro is proposing a 15-year program starting in 2013 to install additional washrooms at approximately 60 Hydro facilities. The sites include all of Hydro's remote sites comprising terminal station control buildings, diesel generation plants and hydroelectric generation plants. According to Hydro "the washrooms are required to accommodate an increase in the number of female staff working in, what were once considered to be, non-traditional roles." Hydro submits the project is required to comply with the requirements of s. 61(2) of the Provincial Occupational Health and Safety Regulations, 2012 (OH&S) which states that, "where both male and females are employed, separate toilets shall be provided and suitably identified for workers of each sex." This project is classified as "Mandatory" by Hydro.

In its submission Newfoundland Power states that the evidentiary basis supporting this mandatory project is in effect a telephone discussion with an enforcement officer at the OH&S Division which resulted in Hydro concluding that the 60 remote locations do not comply with OH&S regulations. Newfoundland Power submits that the regulations require separate washrooms where males and females are employed, and that Hydro's position that separate washrooms are required at its remote facilities is based on the assumption that its staff are "employed" at all 60 remote terminal stations and diesel plants. Newfoundland Power also notes that this regulatory requirement has existed since at least 1979.

Newfoundland Power submits that the Board is required to authorize the expenditure necessary to ensure that Hydro meets its regulatory requirements on a least-cost basis. According to Newfoundland Power Hydro has not provided evidence for this project to indicate that the proposed expenditures are necessary to ensure least-cost compliance, and has also not provided a clear scope of work for the proposed project. Newfoundland Power submits that the Board should not approve this project until Hydro has provided evidence of a clear regulatory requirement and the scope (including forecast costs) of the proposed project.

Both the Consumer Advocate and the Island Industrial Customers endorse Newfoundland Power's position as outlined in its submission and request that approval of this project be withheld at this time pending further clarification/evidence from Hydro on the need for this project.

Hydro submits that the position of Newfoundland Power and as adopted by the other Intervenors is "erroneous, impracticable and short-sighted." Hydro points out that there are now approximately 40 female employees in non-traditional roles who have reason to work in places where, at present, there are no specifically female washrooms. Hydro also projects the number of female employees to increase due to changing demographics.

The Board accepts Hydro's position that the need for separate female-only washrooms at remote

sites has arisen as the number of females in non-traditional roles has increased. The Board finds no merit in Newfoundland Power's argument, supported by the Consumer Advocate and the Industrial Customers, which seems to suggest that the regulations would only apply to Hydro's remote sites if its staff were "employed" at all remote sites. In the Board's view this is a restrictive interpretation of the OH&S regulations and one upon which the Board will not rely. Section 61(1) of the OH&S regulations refers to the requirement for an employer to "provide, maintain and keep clean sufficient and suitable toilet facilities for workers". The OH&S regulations go further to state that separate washrooms shall be provided where both males and females are employed.

Whether the requirement for separate washrooms arises from law or from the general duty to treat all employees with dignity, there is no basis upon which to make a determination that this standard should be applied differently in remote sites versus office or corporate sites. The nature of Hydro's business requires its workers, male and female, to work at its remote facilities for certain periods of time. There is no basis on which to make a distinction between Hydro's employees or workers on the basis of where they perform their work. Hydro's interpretation of the OH&S regulations is not unreasonable or incorrect and the Board is satisfied that this project should be approved.

Replace Personal Computers - \$463,900

Hydro is proposing to replace 229 personal computers (111 laptops, 116 desktops and 2 workstations) that were deployed in 2008 and 2009. According to Hydro this expenditure is part of its on-going Personal Computer (PC) Replacement program which provides for the life cycle replacement of computers in a planned and consistent manner. Hydro states that this program allows for even distribution of budgets and ensures that the computers are available and reliable to support user applications. The computers to be replaced in 2013 are approaching the end of their useful lives and failures can be expected. As well maintenance agreements have expired and replacement parts can no longer be guaranteed.

The Consumer Advocate acknowledges that computers have a limited life span after which replacement is required, but suggests that Hydro has not provided sufficient information to show how the number of laptops versus desktops required was determined. According to the Consumer Advocate the considerable difference between the cost of a laptop (\$1,800) and a desktop (\$1,050) requires that only those employees who are expected to work away from the office be provided a laptop. This will, submits the Consumer Advocate, help control the recurring costs associated with computer replacement.

The Industrial Customers state that, while they do not object to an appropriate program of computer replacement/retirement, Hydro's proposal does not include information on how many laptops will be purchased or to whom the more costly laptops will be issued. The Industrial Customers submit that this information should be provided by Hydro, with substantiation for laptop assignments, prior to approval this proposed expenditure.

Newfoundland Power did not comment on this project.

Hydro submits that the analyses proposed by both the Consumer Advocate and the Industrial Customers is "unnecessary, tends towards micromanagement, and ought to be rejected." Hydro argues that an employee's supervisor or manager is best informed as to work requirements and whether a laptop is required. Hydro confirms that the criterion is that, generally, if an employee is

expected to use their computer while away from the office a laptop is assigned. (CA-NLH-74)

The Board accepts Hydro's evidence on this project. The Board notes the objections raised with respect to this project relate only to the assignment (and resulting requirements) of the more expensive laptops and not with the project itself. The policy outlined for assignment of laptops is reasonable in the Board's view and there is no basis on which to require further justification of this project. This project will be approved.

Install Automated Fuel Monitoring System, Upper Salmon - \$192,700

This project is required to install an automated fuel monitoring system at the North Salmon Spillway structure, which is part of the Bay d'Espoir hydroelectric system. Hydro states that the installation of a fuel monitoring and PLC-based enhanced delivery system will ensure continuous monitoring of the levels of fuel in the tanks including alarms to alert Energy Control Centre ("ECC") personnel of possible problems with either the transfer system or the fuel tanks. Fuel monitoring at this site currently takes place during monthly inspections.

Hydro justifies the project on the basis of cost savings and required compliance with the *Environmental Protection Act*, 2003. Hydro projects yearly cost savings of \$120,111 based on the costs of manual site checks for weekly dipping to check fuel as required under current regulations versus an automated system. Hydro states that this project will allow it to file a written request with the provincial government that the operator duties be varied from the regulatory requirements so that weekly dipping is not required.

 The Consumer Advocate notes that Hydro's current practice is not in compliance with the Environmental Protection Act, 2003, which requires weekly dipping to check fuel. Hydro monitors fuel at this site on a monthly basis and has not undertaken weekly dipping since the fuel system was put into service in 2005. (CA-NLH-93) Hydro previously sought an exemption in relation to the required dipping frequency, which was rejected. The Consumer Advocate submits that a more prudent course of action for Hydro would be to seek confirmation from Government prior to proceeding with this project. According to the Consumer Advocate this approach would avoid the possibility that, even with the proposed system in place, Government may still determine that the variance in operator duties does not meet regulations.

The Industrial Customers and Newfoundland Power did not comment on this project.

In its reply submission Hydro reiterates that this project is justified on the basis of the requirement to do weekly site visits for tank dipping or, alternatively, installing an automated monitoring system as proposed. Hydro states that the requirement for weekly tank dipping was waived in the case of a similar project approved for Cat Arm and that it expects to receive the same permission in this instance.

The Board agrees that the automated fuel monitoring system will reduce costs. The cost savings will only be realized however if the system results in a waiver of the weekly tank dipping required by current legislation. In the absence of this approval Hydro will have to perform weekly tank dips as opposed to monthly which is current practice. Rather than delay the project further the Board will approve this project as proposed but will require Hydro to provide the Board with verification that a variance from the weekly tank dipping has been secured once the project is completed. In the

absence of evidence that the variance has been obtained the Board will not allow recovery of these project costs.

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Legal Survey of Primary Distribution Line Right of Way - \$156,200 (2013), \$40,000 (2014)

Hydro proposes to continue this program, which began in 2004, to obtain easements for approximately 2370 km of distribution line located on provincially owned land. From 2004 to 2011 a total of 835 km of distribution line has been surveyed and is being processed by the Lands Division (Crown Lands). In 2012 approximately 150 km of distribution line is planned to be surveyed and processed. Hydro proposes a capital expenditure of \$196,200 over the two-year period 2013-2014 to survey approximately 150 km. According to Hydro the work is planned to be completed over two years to allow sufficient time for the contractor to develop detailed legal surveys and also for the processing of the legal surveys at Crown Lands. As of 2013 approximately 1385 km of distribution line remain to be surveyed, which is anticipated to be completed by 2021. Hydro justifies this project on the basis that the distribution lines occupy Crown Lands without title, contrary to the *Lands Act*. According to Hydro lack of adequate title is a risk to the operation of the lines should competing requirements for the lands arise. Hydro states on pg. E-116 of the Application that "the sole purpose of these surveys is to obtain easements over Crown Land to prevent other parties from getting title to the land, thereby potentially complicating maintenance of the lines."

The Consumer Advocate points to the increasing cost of this project, noting that costs to date have been in excess of \$300,000. He submits that Hydro has no plan to accelerate the process to finality. The Consumer Advocate argues that Hydro has not examined whether the remaining survey work could be done more quickly and at less cost with in-house personnel. He states: "In light of not examining this option it cannot be said that it has been established that a continuation of this project in 2013 is reasonably required for Hydro to meet its obligation to provide reasonably safe and adequate, least cost service to its customers."

The Industrial Customers also argue that Hydro has not examined whether the remaining survey work could be done more efficiently and at less cost if in-house surveyors were hired to complete the work instead of using independent contractors. Until the option of in-house surveyors is fully canvassed the Industrial Customers submit that Hydro cannot show that it has chosen the least-cost option in this case.

Newfoundland Power did not comment on this project.

In its reply submission Hydro argues that this project should not be rejected or postponed pending further analysis of the possibility of hiring in-house surveyors on a temporary or term basis since such an analysis will not lead to a different outcome due to it being impracticable in the present labour market.

The Board notes Hydro's response in CA-NLH-104 where it stated that it had not examined whether the remaining survey work could be done more quickly and at less cost if in-house surveyors were hired. Hydro's position is that, based on experience, it would not be possible to recruit and hire professional survey staff since professional surveyors are in high demand in the Province. The Board accepts this explanation and notes that, even if the surveyors were able to be hired directly, it would not address the delays in processing and approval by Crown Lands caused

by workloads and staff shortages in that department. The Board agrees with the approach being taken by Hydro with respect to this project and is satisfied that Hydro is taking the necessary action to ensure compliance with the *Lands Act* and minimize risk to the operation of the lines. This project will be approved.

Front End Engineering Design (Hydro Place) - \$472,100

Hydro proposes to capitalize front end engineering design (FEED) costs in 2013 in the amount of \$472,100 associated with the preparation of the 2014 capital budget submission. FEED is the Phase I engineering for a project as it proceeds from concept to a defined project. Hydro states that FEED costs are considered to be part of the initial costs associated with bringing an asset to its intended location and condition and can be capitalized under International Financial Reporting Standard (IFRS) IAS 16 Property, Plant and Equipment. Hydro submits that, in the past, Phase I engineering was often delayed until after the approval process by the Board and, as a result, the necessary information for the preparation of a strong cost estimate for a filing was not available and revisions were often required for project plans and budget estimates. Hydro also proposes that it be permitted to capitalize its FEED costs incurred in 2012 in connection with its 2013 capital projects that it has proposed, and which are ultimately approved, constructed and included in rate base.

In its submission Newfoundland Power states that "...Hydro's stated intention to perform an increased degree of front end engineering design is conducive to improved regulatory transparency and worthy of the Board's support." However, according to Newfoundland Power, approval of FEED costs in advance of the Board's consideration of the capital projects is not conducive to improvement in regulatory transparency. Newfoundland Power points out that the estimate of FEED costs indentified by Hydro does not include details regarding the individual project descriptions, associated project scopes or project justification. Newfoundland Power submits that the advance approval sought by Hydro is simply not necessary and reduces, rather than improves, regulatory transparency. Newfoundland Power also notes that, for its 2013 capital budget, Hydro incurred \$229,700 in FEED costs which are included in the cost of specific projects proposed in the 2013 Capital Budget and which were not approved in advance by the Board.

The Consumer Advocate states that Hydro's proposal "...represents a departure from the current situation where Hydro seeks approval of the capitalization of FEED costs at the same time the project is considered, to a situation where Hydro is asking that the Board approve estimated front end costs in advance of the scrutiny of the very projects to which these costs are attributable." The Consumer Advocate points out that, according to CA-NLH-2, Hydro has not investigated how other regulated utilities treat FEED costs and notes the lack of support by Newfoundland Power of this proposed project.

The Industrial Customers, in their submission, agree with Newfoundland Power's position on this issue and submit that approval of FEED costs for capital projects that have not been submitted and approved by the Board should be denied.

Hydro states in its reply submission:

"FEED work has to be done with every project; the issue is whether some or all of it occurs prior to the submission of a project to the Board. Hydro submits that it is advantageous to Hydro, the Board and the Intervenors to have project proposals that contain a higher level

of engineering prior to submission. This helps avoid insufficient project definition, inadequate site-specific planning, and unnecessary surprises when the project moves through the final design and execution stages."

Hydro suggests that the 2013 FEED "project" is much like the Allowance for Unforeseen Items in that it is a category of capital spending planned for yet to be determined projects. In both cases, Hydro argues, the Board is pre-approving the expenditure of a category of capital related costs but the recovery of those costs is subject to further process. According to Hydro this project will provide a means of allowing the utility to "...do the right amount of prudent and timely work to give the best value to ratepayers, to show that planned capital expenditure in its annual capital budget, and to record those costs in the year in which they occur."

The Board agrees with Hydro that preliminary engineering work should be advanced sufficiently during the capital budget preparation process to enable appropriate project definition, scoping, work plans and cost estimates. This has been, and will continue to be, the expectation for all projects proposed to the Board by either utility for approval under s. 41(3) of the *Act*. Hydro suggests that "there is a disincentive to doing significant amounts of FEED work prior to project approval if these costs are not recorded as capital costs." This presents the Board with a conflict that is not easily resolved. The implication of Hydro's argument is that, without pre-approval of the 2014 capital project FEED costs, the necessary information to prepare sufficiently advanced project definition and cost estimates will not be available. It is not clear, based on the evidence, whether this "project" can or should be justified on that basis.

The Board notes Hydro's response in IC-NLH-3 that it has always considered Phase 1 FEED important but, due to limited resources and previous staffing structure, was unable to advance the Phase 1 engineering work to the capital budget submission stage. Hydro states that this has been addressed and the revised process in place allows it to capture FEED costs during the preparation of the project proposal. The Board acknowledges Hydro's efforts to improve its capital budget estimates but it is not clear, based on the evidence, why the 2014 FEED costs need to be approved in advance of the project planning stage. The Board does not agree that this proposed project is analogous to the Allowance for Unforeseen Items. That account is approved as part of each utility's annual capital budget to allow for timely response to emergencies without the necessity of an application to the Board for pre-approval as required under s. 41(3) of the *Act*. That is not the case here.

There is also a question as to the impact of Hydro's adoption of IFRS on this change in recording of FEED costs. In CA-NLH-70 Hydro states that the capitalization of FEED costs associated with the preparation of the 2014 capital budget submission is not driven by IFRS but rather the desire to improve project estimates and delivery on capital projects. According to Hydro one step in achieving these objectives is by doing more in-depth engineering work during the budget preparation stage. In its submission however Hydro suggests that there may be an IFRS issue if the accounting records capture FEED costs as capital costs related to the asset(s) in question, and the regulated capital costs exclude such amounts. Hydro states it "...would have to consider the implications of such a discrepancy, and suggests it may have to return to doing the FEED work after a project is approved."

In principle the Board takes no issue with Hydro's position that FEED costs should be considered as part of the overall project's costs and be capitalized, as allowed for under IFRS. This is a departure from Hydro's current practice of expensing costs related to FEED that occur before a

project has been approved by the Board. The Board is not persuaded, however, that advance approval of an estimate of FEED costs as a capital "project" is necessary. Hydro will be undertaking FEED work during the 2014 capital budget preparation process in 2013. Hydro confirms that these FEED costs will be tracked for each specific project and will form part of the 2014 capital budget submission and that costs related to any specific project not receiving Board approval will not be capitalized. (IC-NLH-4) It would seem reasonable then to address the issue of capitalization of these FEED costs concurrent with the consideration of the capital budget for which these costs have been incurred. The Board understands that Hydro wishes to have these costs capitalized in the year in which they have been incurred. This approval can be granted as part of the Board's Decision and Order for the 2014 Capital Budget or in a separate Order. This will, in the Board's view, allow the Board to consider the FEED costs in the context of the review of the specific projects and the evidentiary basis for each. It will also address the issue of regulatory transparency raised by the Intervenors, which is of concern to the Board as well. This project will not be approved as proposed.

With respect to the FEED costs within each applicable 2013 project incurred and captured in 2012, Hydro has provided a breakdown of those costs by project as part of the Application (pgs. 14 and 15 of the Capital Projects Overview). The total of these costs is \$229,700 which Hydro proposes be included with those 2013 capital projects. The Board notes that \$21,800 of those costs are for 2013 capital projects related to Holyrood that have since been withdrawn by Hydro. The Board is satisfied that these costs, less \$21,800 for the withdrawn Holyrood projects, should be included in the 2013 project costs.

Summary Board Findings: Phase II Projects

The Board will approve the Phase II proposed expenditures in relation to the construction and purchase of improvements or additions to Hydro's property in excess of \$50,000, with the exception of the project "Front End Engineering Design" in the amount of \$472,100, which is not approved at this time. The project "Install Automated Fuel Monitoring System, Upper Salmon" in the amount of \$192,700 will be approved but recovery of costs will be allowed only upon verification of a waiver from current legislative requirements as proposed by Hydro.

3. Other Issues

Project Prioritization

The Industrial Customers submit that some meaning and regulatory consequence should follow from Hydro's own choices in assigning lower rankings to projects beyond those priority "1" rank projects. The Industrial Customers note that, according to IC-NLH-7, approximately \$10 million of the original proposed capital budget is for "Medium" priority projects, which is in effect the lowest priority assigned since none of the proposed projects have been assigned a "Low" priority. While acknowledging that the expenditure for "Medium" priority projects has been reduced by the withdrawal of certain Holyrood projects, the Industrial Customers submit that the remaining "Medium" priority projects should still be subject to close scrutiny to assess whether Hydro has established that they are consistent with the most efficient production, transmission and distribution of power, at the lowest possible cost consistent with reliable service.

In its reply submission Hydro reiterates that the project prioritization is a screening tool used to determine which projects are required to ensure that it provides reasonable, reliable and adequate service. According to Hydro the suggestion by the Intervenors in some instances that a project can be rejected because of its low ranking "displays a misunderstanding or misapplication of the purpose and intent of the project ranking process and of the process used by Hydro in choosing the capital projects that are submitted for approval."

The Board does not agree with the Industrial Customers' suggestion that some consequence should follow from Hydro's ranking assignments for projects beyond priority "1". All projects proposed as part of Hydro's annual capital budgets are carefully reviewed by the Board based on the information filed in support of the proposed expenditure as well as additional documentation filed in response to RFIs and submissions. Information on the ranking of Hydro's capital projects does provide greater transparency as to Hydro's project evaluation criteria and selection process and the relative importance of the projects proposed, and is considered along with the other information filed. This fits with the comprehensive approach to project review undertaken by Board. It was not intended that the ranking information would be used, in the absence of other evidence, to support a finding that lower ranking projects are not necessary or reasonable. The Board is satisfied that the current approach is appropriate.

Compliance with Order No. P.U. 5(2012) – Holyrood Capital Expenditures

 In Order No. P.U. 5(2012) the Board ordered Hydro to file, in conjunction with its 2013 Capital Budget Application, an overview in relation to the proposed capital expenditures for the Holyrood Thermal Generating Station. This overview was not provided. All Intervenors raised concerns with Hydro's non-compliance with the Board's order.

The Industrial Customers state:

"Hydro's failure to comply with the Board's Order in respect of the 2013 Application has consequences both for the efficiency and costs of the parties' participation in this regulatory process. The Island Industrial Customers submit that there should be a remedy ordered by the Board for [the] Hydro's failure to comply with P.U. 5(2012), rather than simply passively excuse such non-compliance by allowing Hydro to belatedly address that failure by its 2014 Budget filing."

The Industrial Customers submit that, in the absence of the required filing, the Board should exercise even greater scrutiny and diligence with respect to the Holyrood projects in this Application. In noting that Hydro has since withdrawn four Holyrood projects, three of which have been the subject of numerous RFIs, the Industrial Customers suggest that if Hydro had complied with Order No. P.U. 5(2012) the questionable need for these withdrawn projects might have been identified earlier.

The Consumer Advocate submits that Hydro has not complied with the Board's Order in this Application and that the Board should order Hydro to comply with the requirement in advance of its filing of its 2014 Capital Budget Application. He further states:

"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."

Newfoundland Power states that the table filed by Hydro in response to PUB-NLH-6 provided neither an overview nor context for the specific capital expenditures, and further states that: "Hydro has failed to comply with Order No. P.U. 5(2012) insofar as it relates to providing an overview in relation to proposed capital expenditures at Holyrood." Newfoundland Power submits that the Board should order Hydro to comply with this requirement in the filing of its 2014 Capital Budget Application.

In its reply submission Hydro states:

"The Intervenors have indicated a level of concern as to the sufficiency of information provided as to Hydro's plans as to the deployment of Holyrood in the coming years as its role evolves. Although some aspects of these plans have been becoming more determinable in the last year, until the sanction decision was made and the level of design was refined to pass through Decision Gate 3, a number of issues surrounding Holyrood's role remained undecided."

Hydro confirms that it is now in a position to ascertain this information with a reasonable level of certainty and intends to provide the information sought by the Board and Intervenors over the coming months. Hydro proposes to provide the information required under Order No. P.U. 5(2012) with its next capital budget filing.

The Board finds that Hydro has not complied with Order No. P.U. 5(2012) with respect to the requirement to file an overview in relation to proposed capital expenditures for Holyrood. The information supplied by Hydro in PUB-NLH-6 is not what was contemplated in the Board's Order. The Board also acknowledges Hydro's position that the role of the Holyrood Thermal Generating Station has been uncertain and that, with the sanction decision, it intends to provide the required information over the coming months. The Board will require Hydro to file, no later than with its 2014 Capital Budget application, the information required in Order No. P.U. 5(2012).

III 2013 CAPITAL BUDGET

In Order No. P.U. 2(2013) the Board approved certain Phase I capital projects proposed by Hydro. In the within Order the Board will approve 2013 Phase II projects not addressed in Order No. 2(2013). With the conclusion of Phase I and Phase II the Board will now approve Hydro's 2013 Capital Budget in accordance with s. 41(1) of the *Act*.

Hydro's 2013 Capital Budget for improvements and additions to its property will be approved in the amount of \$62,272,500, which includes the expenditures for projects over \$50,000 approved in both Phase I and Phase II, expenditures for projects less than \$50,000, expenditures for previously approved projects commencing prior to 2013, and the Allowance for Unforeseen Items.

IV 2011 AVERAGE RATE BASE

3 Hyd 4 \$1,4

Hydro has requested that the Board fix and determine its average rate base for 2011 at \$1,493,218,000.

The Board is not in a position at this time to make a final determination on Hydro's average rate base for 2011. There are still outstanding issues before the Board with respect to 2011 expenditures included in the Allowance for Unforeseen Items which will affect the final calculation of the 2011 average rate base. The Board will address this matter in a separate Order to be issued.

V CLAIM FOR COSTS

The Industrial Customers request that, in the context of the present Capital Budget Application, there be an award of costs on the same or similar basis on which the Consumer Advocate's costs are dealt with in Hydro's capital budget process. The Industrial Customers point to several aspects of the Application to support an award of costs:

i) The failure of Hydro to comply with P.U. 5(2012), with respect to the filing of an overview in relation to proposed capital expenditures for Holyrood;

ii) The late withdrawal of the four Holyrood projects:

 iii) The need to file extensive requests for information to clarify the extent and basis of a very fundamental change in Hydro's manner of proposing annual capital expenditure, by its proposed inclusion of Front End Engineering Design (FEED) costs in the present Application; and

The Industrial Customers also submit that it would not be fair to assume that the Consumer Advocate can represent the interests of all of Hydro's ratepayers, in all circumstances, from every needed perspective.

Hydro, the Consumer Advocate and Newfoundland Power did not comment on the Industrial Customers' request for costs.

The Board has jurisdiction to award costs to a party under s. 90 of the *Act*. Hydro did not make any argument with respect to the request for costs. The Board finds that the participation of the Industrial Customers contributed to its understanding of the issues in this Application and is satisfied that an award of costs is appropriate. Unlike the Consumer Advocate's cost recovery, which is set out in s. 117 of the *Act*, an award of costs to the Industrial Customers is made in accordance with s. 90 of the *Act*. The Industrial Customers will be required to submit a bill of costs to the Board for its consideration.

 VI ORDER

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IT IS THEREFORE ORDERED THAT:

1. Hydro's proposed construction and purchase of improvements or additions to its property in excess of \$50,000 to be completed in 2013, as set out in Schedule A to this Order, are approved, except:

a. Front End Engineering Design (\$472,100) is not approved; and

b. Automated Fuel Monitoring System, Upper Salmon (\$192,700) is approved but costs for this project will not be recovered unless otherwise ordered by the Board.

2. Hydro's proposed multi-year construction and purchase of improvements or additions to its property in excess of \$50,000 to begin in 2013, as set out in Schedule B to this Order, are approved.

3. Hydro's proposed contributions in aid of construction for 2013 are approved.

4. Hydro's 2013 Capital Budget for improvements or additions to its property in the amount of \$62,272,500, as set out in Schedule C to this Order, is approved.

5. Unless otherwise directed by the Board Hydro shall file, in conjunction with the 2014 Capital Budget Application, an overview in relation to the proposed capital expenditures for the Holyrood Thermal Generating Station.

25 6. Unless otherwise directed by the Board Hydro shall file an annual report with the Board in relation to its 2013 capital expenditures by March 1, 2014.

7. Unless otherwise directed by the Board Hydro shall file, in conjunction with the 2014 Capital Budget Application, a status report on the 2013 capital expenditures.

8. The Industrial Customers are entitled to an award of costs in an amount to be fixed by the Board.

9. Hydro shall pay all costs and expenses of the Board incurred in connection with thisApplication.

DATED at St. John's, Newfoundland and Labrador this 26th day of February, 2013.

Andy Wells

Chair & Chief Executive Officer

Darlene Whalen, P.Eng.

Vice-Chair

James Oxford Commissioner

Cheryl Blundon

Board Secretary

SCHEDULE A

ORDER NO. P.U. 4(2013)

ISSUED: FEBRUARY 26, 2013

NEWFOUNDLAND AND LABRADOR HYDRO 2013 CAPITAL BUDGET

PHASE II

SINGLE YEAR PROJECTS OVER \$50,000 (\$000)

Schedule A Order No. P.U. 4(2013) Page 1 of 1

PROJECT	DESCRIPTION
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2013 GENERATION HYDRAULIC PLANT 532.0 Automate Generator Deluge Systems Units 5 and 6 - Bay d'Espoir Upgrade Generator Bearings - Bay d'Espoir 480,9 314.7 Replace Automatic Transfer Switches - Hinds Lake Upgrade Public Safety Around Dams and Waterways - Bay d'Espoir 298.1 Replace Auto Greasing Systems Units 1 and 3 - Bay d'Espoir 260.1 192.7 Install Automated Fuel Monitoring System - Upper Salmon 175.4 Replace Cooling Water Pumps - Bay d'Espoir 141.9 Replace By-Pass Valves Units 3 and 4 - Bay d'Espoir 97.3 Purchase Low Pressure Screw Compressor Set - Bay d'Espoir 2,493.1 TOTAL HYDRAULIC PLANT THERMAL PLANT 1,170.2 Complete Condition Assessment Phase 2 (Year 2) - Holyrood 993,9 Overhaul Unit 3 Turbine Valves - Holyrood 955.6 Install Backup System for Raw Water Supply and Clarifier - Holyrood 584.2 Upgrade Fuel Oil Day Tank - Holyrood Overhaul Unit 3 Boiler Feed Pump West - Holyrood 178.5 123.5 Replace Condensate Polisher Annunicator Panels - Holyrood 101.5 Overhaul Unit 2 Extraction Pump South - Holyrood 4,107.4 TOTAL THERMAL PLANT 6,600.5 TOTAL GENERATION TRANSMISSION AND RURAL OPERATIONS TERMINAL STATIONS Install Online Vibration Monitoring System - Corner Brook Frequency Converter 382,8 189.2 Replace Optimho Relays on TL242 - Holyrood to Hardwoods Replace 230 kV Breaker Controls - Bottom Brook 68.9 640.9 TOTAL TERMINAL STATIONS TRANSMISSION Perform Wood Pole Line Management Program - Various Sites 2,466.7 2,466.7 TOTAL TRANSMISSION PROPERTIES 429.9 Install Automatic Fire Sprinkler System - Bay d'Espoir 250.9 Install Additional Washrooms - Various Sites TOTAL PROPERTIES 680.8 TOTAL TRANSMISSIONAND RURAL OPERATIONS 3,788.4 GENERAL PROPERTIES INFORMATION SYSTEMS COMPUTER OPERATIONS Infrastructure Replacement 463.9 Replace Personal Computers - Various Sites 463.9 TOTAL COMPUTER OPERATIONS TOTAL INFORMATION SYSTEMS 463.9 463.9 TOTAL GENERAL PROPERTIES 10,852.8 TOTAL PHASE II SINGLE YEAR PROJECTS OVER \$50,000

SCHEDULE B

ORDER NO. P.U. 4(2013)

ISSUED: FEBRUARY 26, 2013

NEWFOUNDLAND AND LABRADOR HYDRO 2013 CAPITAL BUDGET PHASE II MULTI-YEAR YEAR PROJECTS OVER \$50,000 (\$000)

Multi-year Projects Commencing in 2013

PROJECT DESCRIPTION	2013	2014	2015	2016	2017
Install Variable Frequency Drives on Forced Draft Fans - Holyrood	697.6	2,659.7			
Upgrade Gas Turbine Controls - Happy Valley	61.4	1,128.6			
Upgrade Terminal Station - Wiltondale	697.7	1,173.3			
Upgrade Distribution Systems - Various Sites	1,940.1	3,995.5			
Legal Survey of Primary Distribution Line Right of Way - Various Sites	156.2	40.0			
TOTAL PHASE II MULTI-YEAR PROJECTS OVER \$50,000 COMMENCING 2013	3,553.0	8,997.1	0.0	0.0	0.0

SCHEDULE C

ORDER NO. P.U. 4(2013)

ISSUED: FEBRUARY 26, 2013

NEWFOUNDLAND AND LABRADOR HYDRO 2013 CAPITAL BUDGET

Phase I Projects [Order No. P.U. 2(2013)]	\$35,405,300
Phase II Projects	14,405,800
Multi-Year Projects Commencing Prior to 2013*	10,518,800
Projects under \$50,000	942,600
Allowance for Unforeseen Items [Order No. P.U. 2(2013)]	1,000,000
	\$62,272,500

^{*} Projects approved previously as set out in Schedule D.

SCHEDULE D

ORDER NO. P.U. 4(2013)

ISSUED: FEBRUARY 26, 2013

NEWFOUNDLAND AND LABRADOR HYDRO 2013 CAPITAL BUDGET MULTI-YEAR YEAR PROJECTS OVER \$50,000 (\$000)

Multi-year Projects Commencing Prior to 2013 (Previously Approved)

PROJECT DESCRIPTION	2013	2014	2015	2016	2017
Phase I					
Replace Static Excitation Systems - Upper Salmon, Holyrood and Hinds Lake	2,295.2				
Replace Emergency Diesel Generator - Bay d'Espoir	282.7				
Perform Grounding Upgrades - Various Sites	329.0	337.1	345.4		
Replace Compressed Air Piping - Buchans	278.3				
Replace Guy Wires TL215 - Doyles to Grand Bay	350.1	530.0			
Voltage Conversion - Labrador City	969.5				
Upgrade L2 Distribution Feeder-Glenburnie	596.6				
Upgrade Distribution Lines - Bay d'Espoir, Parsons Pond and Plum Point	1,110.5				
Upgrade JD Edwards - Hydro Place	587.6				
Cost Recoveries	(199.8)				
Perform Arc Flash Remediation - Various Sites	391.0	401.8	413.1		
Install Automated Meter Reading - Plum Point and Bear Cove	287.7				
Replace Off Road Track Vehicles - Flower's Cove and Cow Head	395.6				
Replace Vehicles and Aerial Devices (2012-2013) - Various Sites	1,218.8				
TOTAL PHASE I MULTI-YEAR PROJECTS OVER \$50,000 COMMENCING PRIOR TO 2013	<u>8,892.8</u>	1,268.9	758.5	0.0	
Phase II					
Replace Fuel Oil Heat Tracing - Holyrood*	1,413.9				
Upgrade Electrical Equipment - Holyrood	212.1				
TOTAL PHASE II MULTI-YEAR PROJECTS OVER \$50,000 COMMENCING PRIOR TO 2013		0.0	0.0	0.0	0.0
TOTAL MULTI-YEAR PROJECTS OVER \$50,000 COMMENCING PRIOR TO 2013	10,518.8	1,268.9	758.5	0.0	0.0

^{*} As per Order No. P.U. 5(2012) this project was approved as a multi-year project (\$1,474,300 in 2012, \$1,413,900 in 2013) but Hydro is not permitted to recover the costs of this project unless otherwise ordered by the Board.

Newfoundland & Labrador
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