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January 9, 2013

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

ATTENTION: Ms. Cheryl Blundon
Director of Corporate Services & Board Secretary

Dear Ms. Blundon:

Re: Newfoundland and Labrador Hydro – 2013 Capital Budget Application

Please find enclosed ten copies of Hydro's reply to Intervenors' written submissions with regard to Hydro's 2013 Capital Budget Application.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO

Geoffrey P. Young
Senior Legal Counsel

GPY/jc

cc: Gerard Hayes – Newfoundland Power (2)
Paul Coxworthy – Stewart McKelvey Stirling Scales
Thomas Johnson – Consumer Advocate (2)
Dean Porter – Poole Althouse

A REPORT TO
THE BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

2013 CAPITAL BUDGET APPLICATION
FINAL SUBMISSION

NEWFOUNDLAND AND LABRADOR HDYRO

January 9, 2013

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IN THE MATTER OF the *Public Utilities Act*, (the Act); and

IN THE MATTER OF an Application by Newfoundland and Labrador Hydro for an Order approving: (1) its 2013 capital budget pursuant to s.41(1) of the Act; (2) its 2013 capital purchases, and construction projects in excess of $50,000 pursuant to s.41 (3) (a) of the Act; (3) its leases in excess of $5,000 pursuant to s. 41 (3) (b) of the Act; and (4) its estimated contributions in aid of construction for 2013 pursuant to s.41 (5) of the Act and for an Order pursuant to s. 78 of the Act fixing and determining its average rate base for 2011.

TO: The Board of Commissioners of Public Utilities (the Board)

1 Introduction

Newfoundland and Labrador Hydro (Hydro) filed its 2013 Capital Budget Application with the Board of Commissioners of Public Utilities on August 8, 2012 seeking approval under Section 41 of the *Public Utilities Act* of $66,145 million in capital expenditures and seeking approval under Section 78 of the Act of its 2010 rate base in the amount of $1,493,218,000. On December 18, 2012, following the sanctioning by the Province of the Muskrat Falls project, Hydro withdrew four Holyrood projects as future plans for the Holyrood facility had been refined since Hydro's initial Capital Budget Application. On January 7, 2013, the Intervenors indicated that they were not were not making specific submissions on a number of capital project proposals and Hydro thereupon requested that the Board deal with those projects on a priority basis. These projects are referred to in that request and in this submission as Phase I projects. The other projects are referred to as Phase II projects and are the subjects dealt with in this submission.

Hydro seeks approval of its 2013 Capital Budget projects, both Phase I and Phase II, and in support of that Application, makes the following submissions.

2 Legislative Framework

Hydro is required by Section 37 of the Act to provide electrical service and facilities that are safe and adequate and just and reasonable. Section 41 of the Act requires Hydro to obtain approval from the Board for its annual capital budget. In addition, Section 3 of the *Electrical Power Control Act, 1994* requires that Hydro provide electrical service that is efficient, that is provided such that its customers have equitable access to an adequate supply of power, and that is provided at least cost consistent with reliable service.

The projects proposed in Hydro's 2013 Capital Budget are necessary to enable Hydro to comply with these legal duties. The level of capital expenditures considered in Phase II is required to enable Hydro to maintain its infrastructure and meet its statutory obligations to provide electrical service and facilities that are safe and adequate and just and reasonable.

3 Level of Expenditures

In assessing the projects being proposed, Hydro has ensured that it is complying with the power policy provisions of Section 3 of the *Electrical Power Control Act, 1994* which require that electrical service is managed and delivered in a manner that is efficient and at the lowest cost consistent with reliable service. Choosing least cost options and managing and operating power facilities in the most efficient manner will result in the delivery of power at rates that, over the longer term, are as low as they can reasonably be. Given the aforementioned legislative requirement, choosing capital projects always requires an appreciation of the appropriate balance between reliability and cost.

4 Holyrood

Hydro's 2013 Capital Budget Application again contains the additional complexity of the future role of the Holyrood Thermal Generating Station though much more is now known as to its deployment due to the recent sanctioning by the Province of the Muskrat Falls hydro-electric project as a means of meeting the Island's long-term power requirements.

The sanctioning decision notwithstanding, Hydro requires that Holyrood be maintained and equipped to provide efficient and reliable base load service until power is available from the Labrador infeed. Thereafter, between 2017 and 2020, Holyrood will be required to provide reliable standby generation service and will provide synchronous condensing through to 2020 and thereafter. It is prudent and in the best interest of Hydro's customers for Hydro to be able to operate the plant at full capacity at anytime during the 2017-2020 period and it is imperative that the assets and infrastructure be so planned.

There has been some uncertainty and concern as to the future role of the Holyrood plant including the appropriate deployment of capital at that facility for the short, medium, and long terms. This was unavoidable leading up to the sanction decision but there is greater clarity now and these plans will, undoubtedly, be further refined over the next year or so as final designs and system operation procedures are refined.

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 is now, however, 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 therefore proposes that it provide the information required under Board Order No. P.U. 5(2012) with its next capital budget filing.

5 Project Prioritization

There are a few instances where the Intervenors make reference to the ranking assigned to a project and state or imply that the project can be rejected because, of the projects proposed in the Capital Budget Application, the ranking of the project in question is relatively low. With respect, this approach 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 submitted for approval.

The project prioritization method used by Hydro in its capital budget process is a screening tool, used to determine which projects are required to ensure that Hydro provides reasonable, reliable and adequate service (IC-NLH-8). Projects that are chosen for inclusion in a capital budget are only those projects that meet these standards and criteria. To ensure the process is meaningful, almost all projects are ranked though some are given the highest priority ranking of 1 where they address an "Extreme Safety" concern, are "Mandatory" because they are required to meet a legal requirement, or are "Load Driven" (IC-NLH-7). Recurring projects are exceptions to the ranking process because they have already been evaluated and identified as necessary, so an annual review of them is not required (IC-NLH-6).

6 Specific Projects

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

This project was proposed to meet a business continuity concern raised by Hydro's external risk management consultant, AON Reed Stenhouse Inc. A reliable and uninterrupted supply of fresh water is essential to the operation of Holyrood. This generating plant will be relied upon for large amounts of power and energy, at increased capacity factors, through to 2017 and will be required to be a reliable back-up source of power and energy until 2020 (CA-NLH-18; PUB-NLH-20). Moreover, the need for Holyrood to have a raw water and clarifier facilities will be sustained through to the time that Holyrood is used as a synchronous condenser only (PUB-NLH-17; PUB-NLH-18). The raw water supply and raw water clarification projects are the last two of five systems identified by the risk management consultant as required to be addressed to ensure that Holyrood does not exceed the Maximum Acceptable Down Time, a criterion developed by Hydro in 2005. A copy of the Report explaining this approach was filed with the Application as Appendix A to the report justifying the project.

Hydro did not seek the experiences of other utilities in this matter because Holyrood is relatively unique in this regard due to its proximity to its fresh water resource (CA-NLH-121). Hydro submits that these matters are site-specific and some aspects and solutions do not lend themselves to a comparative approach. In that regard, Hydro notes that the site specific attributes do not apply to all aspects of this project: a consultant's advice was sought with regard to the clarifier who recommended the temporary use of as portable rental unit. Also, alternative design approaches were considered. For example, a water tank facility that could be constructed at the plant Holyrood site was considered but it was rejected because its cost was multiples of the proposed project (IC-NLH-27).

6.2 Replace Automatic Transfer Switches – Hind's Lake (D-51)

This project is required to ensure that a reliable means of connecting to a back-up power supply is available when needed to continue supplying power from this hydroelectric

generating station. This is an integral part of the overall power delivery system for this plant and allowing it to run to failure threatens the reliability of the station, an important generating station in Hydro's Island Interconnected System.

The present system is not reliable, has failed on a number of occasions (CA-NLH-47) and requires replacement. In addition, when the switch fails to function, an operator is required to manually operate a breaker with the switch cabinet door open. This exposes the operator to an arc flash which is an unacceptable worker risk that must be avoided (CA-NLH-49).

6.3 Corner Brook Frequency Converter Vibration System (D-161)

The first point that should be made about this project is that this asset is specifically assigned to Corner Brook Pulp and Paper Limited (Board Order No. P.U. 7(2002-2003)). This means that the additional capital value of this asset that may arise flowing from this project being completed and, it is presumed, causing an increase in rate base, is recovered from this Industrial Customer solely, in the form of increased specifically assigned charges to be proposed in a General Rate Application. So, while this project has been commented upon by the Consumer Advocate, the capital costs will be recovered from none of the customers normally associated with that "client base" (Hydro submits that they are comprised, in chief, of the domestic and general service customers of Hydro and of Newfoundland Power); rather the capital costs will be recovered from one customer represented by the Industrial Customers. According to the cost of service methodology approved by the Board, there will also be an affect on the operating and maintenance costs borne by, and only by, this Industrial Customer because operating and maintenance costs for that asset is also recovered in the specifically assigned charge. That additional cost will be allocated to this customer based upon the portion that the capital cost of this project, (once approved in rate base) bears to the total value of assets of this class of plant (terminal station equipment) in the Island Interconnected System. [1]

[1] Allocations of operating and maintenance costs for plant, whether assigned common or specifically assigned, are made based upon the undepreciated cost of the plant.

There is an additional cost implication for Corner Brook Pulp and Paper Limited that should be considered by the Board in the context of the reliability of this particular asset. There is no evidence on this point before the Board in this hearing but, given the possible outcomes flowing from a denial of this project by the Board, Hydro would be remiss were it not to bring it to the attention of the Board and the parties. When the frequency converter fails or is taken out of service for maintenance, the practice has been to make an adjustment to the demand billing for this customer for that month. This is required because, effectively, the primary function of this asset is to provide a means for this customer to convert 50 Hz power to 60 Hz power for use in its mill—this customer has more 50 Hz generation than it has 50 Hz load and it has a mix of 50 Hz and 60 Hz loads in its mill operations. So when the frequency converter is out of service, it is exposed to increases in its demand costs because the effective, useful generating capacity of its generating plants has been reduced and it has to make up that shortfall through purchased power.

Hydro has always acknowledged that it is responsible to provide reliable power service so it has made appropriate billing adjustments when this aspect of its power service, frequency conversion, is unavailable to the customer. While Hydro, as the public utility that owns and operates this frequency conversion plant, is ultimately responsible to ensure that it operates efficiently, reliably and prudently, in this instance it finds itself at odds as to a capital project proposal with (1) the Consumer Advocate whose "clients" are almost completely unaffected by the costs and reliability of this assets, and (2) with the Industrial Customers, the class which includes the only customer so affected. Hydro has proposed this project because it believes it to be prudent and necessary for the reliable operation of this asset. It is treating the reliability of this asset in the same manner as it treats commonly assigned rotating equipment such as gas turbines and is therefore proposing to install vibration monitoring equipment on this specifically assigned frequency converter (Project Proposal, page D-161). If the Intervenors, and particularly the Industrial Customers, are successful in having this project denied, the Board might well consider whether future demand billing adjustments are appropriate should an outage to the assets arising from the decision of the Board to deny this project.

With respect, Hydro submits that the interest in this project held by the Consumer Advocate, from both the perspectives of cost responsibility and in the reliability of the asset, is obscure and indirect; conversely, the interest in the cost of this project and in the reliability of the asset is held very uniquely by only one Industrial Customer. This should factor in the weighing of the submissions by the Board. Further, should the project be denied and a failure of the asset result, Hydro will consider at that time whether a demand billing adjustment is appropriate and it will address this matter to the Board.

As to the merits of the project, Hydro would point out that this rotating equipment is approaching 50 years of age and is unattended while operating. In the absence of a vibration detection system, vibration testing can be done only on a spot check basis. Vibrations issues have occurred and when undetected can cause costly repairs and operational outages. For these reasons Hydro has installed vibration detection equipment on much of its other rotating equipment (Holyrood units, Stephenville and Hardwoods gas turbines). Hydro submits that to provide continuous, reliable operation of this asset, the installation of a vibration monitoring system is prudent.

6.4 Install Additional Washrooms (D-210)

This project is required to ensure that Hydro's female employees have adequate and appropriate washroom facilities in their workplaces. This is necessary to ensure that Hydro's workplaces do not constitute obstacles to a truly equal and open work environment and experience. It is also a requirement of law.

The position of the Intervenors, as stated by Newfoundland Power and supported by the others, is that the letter of the law is not enforced and Hydro is not entitled to rely upon the interpretation of the *Occupational Health and Safety Regulations, 2012* given by one of the officials of that agency, and that a decision should have been sought by a tribunal. This is a very strange interpretation of the law, posits a peculiar way of making decisions in the context of advice received from specialized government officials, and therefore deserves closer scrutiny.

First, let us consider Hydro's legal duties under the *Occupational Health and Safety Regulations, 2012;* second, we ask the Board to consider the propriety and merits of the proposal absent the legal requirement. Hydro need not adduce evidence, in the form of particular communications with government officials, to show how it concluded that it had a legal requirement to meet. Moreover, the Board has a duty existing under Section 16 of the Act to inquire into and ensure that public utilities adhere to the law. These determinations are matters of legal interpretation and all persons are presumed to know the law—it is trite to say that ignorance of the law is no excuse. While government officials are usefully and thankfully available to assist with the articular laws within their specialized knowledge, a person's duty to comply with the law does not start or end with the pronouncements of any such official. Newfoundland Power made the point that the only evidence on this point pertains to a single telephone conversation with an enforcement officer responsible for this subject. This begs the question whether Newfoundland Power believes that Hydro should have sought a second opinion, or perhaps a third, or a "regulatory directive, order or other formal indication of a regulators' position".

Hydro submits that the position of Newfoundland Power and as adopted by the other Intervenors is erroneous, impracticable and short-sighted. It is incorrect to say that the evidentiary basis consists of a telephone call with a government official. There is other information before the Board which the Board is fully and completely entitled to rely upon in the absent of any record of communications with other government officials. The facts are as follows. During times when few if any females were working in these workplaces, the need for female washrooms, arising from law or from a general duty to treat employees with dignity, arose but rarely. As stated in the project proposal, there are now approximately 40 female Hydro employees in non-traditional roles who have reason to work in places where, at present, there are no specifically female washrooms. Furthermore, Hydro has projected this number to increase due to changing workplace demographics.

Faced with this situation, Hydro took steps to determine the appropriate solution and to design a project to address it. As is stated in CA-LH-68, prior to proposing the project with the Board, Hydro inquired with enforcement officials as to the parameters as to the issue based upon remoteness and frequency of use. This step evinces a level of diligence and a sense of scale that was being brought to bear on the matter and, as can be seen from the wording of the question in that request for Information, there is recognition that this could be a useful consideration in cases or remote sites or infrequent use by female employees. A number of locations have been identified as requiring retrofit work to enable this to happen, with a view as to prioritization based upon the higher concentrations of female employees being accommodated first, and the program will be rolled out over a period of 15 years, which Hydro submits is a conservative pace that balances the needs of the program with its costs.

As Hydro's duty arises here, in part at least, in law, a statement of the applicable statutory requirement is apposite. The particular legal duty here arises under the *Occupational Health and Safety Regulations, 2012* made under the authority of the Occupational Health and Safety Act, RSNL 1990, Chapter O-3. Paragraph 65(1)(h) of that Act says:

> **65.** (1) The Lieutenant-Governor in Council may make regulations
>
> (h) prescribing minimum standards of the facilities for the feeding, rest, hygiene and sanitary needs of workers;

Subsection 65(1) and Paragraph 61(2)(c) of the Regulations read:

Toilet facilities

> **61.** (1) An employer shall provide, maintain and keep clean sufficient and suitable toilet facilities for workers and shall make effective provision for lighting and heating the toilet facilities.
>
> (2) Sufficient and suitable toilet facilities referred to in subsection (1) include the following:
>
> (c) where both males and females are employed, separate toilets shall be provided and suitably identified for workers of each sex;

The policy inherent in the Act and Regulations is clear: places where both male and female employees are employed are to be equipped with separate washrooms for females and males. In Hydro's view, undertaking a probing search for the circumstances where this standard should apply, as opposed to accepting this requirement as the norm and tolerating deviations from this norm only where compliance is a practical problem, demonstrates a failure to accept the essentially important principle of inclusiveness in the workplace behind the policy and the regulations. Inherent in this exclusionary approach is a premise that the presence and employment of females in non-traditional worksites are exceptional events. This is unacceptable in principle, unsustainable in fact, and contrary to the spirit and intent of the law.

6.5 Perform Wood Pole Line Management (C-45; Tab 17)

Hydro's wood pole transmission asset comprise some 2,500 km and 26,000 poles, 50 percent of which are 40 years old or older. Making wise and prudent choices as to how to prolong the life of these poles and to replace the poles no earlier than necessary nor too late is the key to minimizing the long-term, overall cost of owning and operating these assets.

The Wood Pole Line Management Program assures this occurs through a variety of means, including sounding, boring, and visual inspections, to identify poles that require corrective measures to extend their life (CA-NLH-28; Appendix B, page B-15), or to trigger the replacement of poles before they fail in service. Poles are also treated with additional preservative where test findings indicate this action to be appropriate. The program has been successful in extending the average lives of poles by ten years (Appendix, Section 3.2.3, page 7) and in avoiding pole failures despite exposure to severe storm events (Appendix B, page 4).

A considerable portion of Hydro's transmission plant consists of wood pole construction and extending the lives of these transmission lines provides obvious savings to the ratepayer. The costs of the program are quite clearly a small fraction of the cost of the assets. Taking a "pause" in a successful program that has been shown to extend the life of

assets and prevent storm related failures in service is not prudent. With respect, the suggestion of the Industrial Customers that targeting only those lines shown to statistically require attention misses the point of a program such as this. It is the diligent and comprehensive approach to the wood pole transmission poles that has caused the success to date. A decision to choose only certain transmission lines for attention, or to forego all testing for a period because of a limitation experienced with one type of non-destructive testing, would of course achieve some short-term program costs but either of these options would jeopardize the value and reach of this program that has proven to be successful for the continued integrity of this essentially important asset class.

6.6 Replace Automatic Transfer Switches - Hind's Lake (D-51)

The existing automatic transfer switch is 31 years old, past its estimated useful life of 30 years, and has proven to be unreliable, typically failing once or twice each year. The purpose of the switch is to switch the supply of power from a normal electrical supply to a secondary supply when needed. When the switch fails in operation there is a high probability of a plant outage, a need for a manual intervention, and a need for an additional plant outage while the failure cause is being investigated. The switch is a critical asset in the operation of this hydro generating station.

The manual intervention requires exposing an employee to an arc flash risk which is a known safety hazard (CA-NLH-49). Replacing the failing switch with a new one will improve the reliability of the plant and avoid exposing employees to arc flash risks occasioned during manual interventions.

6.7 Upgrade Public Safety Around Dams and Waterways (D-56)

Hydro-electric structures are inherently hazardous for boating and other recreational uses and Hydro has a duty to ensure that reasonable steps are taken to protect the public from hazards or to warn them to mitigate those risks. Utilities across Canada have adopted the Canadian Dam Association Safety Guidelines with a view to ensuring that their facilities are reasonably safe. In this connection, Hydro contracted Hatch to perform a public safety

audit on its hydroelectric facilities. One of the findings was that the original design of the Bay d'Espoir system fell below modern standards of public safety. This project comprises the front end engineering and other capital costs associated with signs, fencing, buoys and booms required to bring Hydro's hydroelectric installation at Bay d'Espoir to an acceptably safe standard (CA-NLH-53).

The Industrial Customers have indicated that in their view the Bay d'Espoir reservoir is a relatively remote site and that the people who use it are aware of the hazards. Hydro's assessment is different. On page D-59 of its Application proposal it stated:

> *The Long Pond Reservoir is the main head pond of the Bay d'Espoir development and is located close to communities in the area and is easily accessible by the public. The risk assessment completed in 2011 identified the lack of appropriate signage, alarms and/or warning systems that alert the public to potential safety hazards and further identified the need for control measures at dams and structures on the Long pond reservoir.*
>
> *The 2011 assessment noted that signage at the tailrace, intakes and spillway areas were inadequate. The small lettering did not provide the visibility to attract the public's attention and was illegible from a safe distance.*

Hydro submits that relying upon local knowledge as a means of ensuring public safety around a hydroelectric facility touches upon the absurd. 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. The Hatch report attached to the project proposal, at page D-65, states that the public uses the area near the facilities as an *ad hoc* camping site. It is noted there that some of those people could be unaccompanied young people. Young people, through no fault of their own, do not have the ability to rely upon years of experience. Campers, it can be assumed, are as likely as not to be people who do not live

in the immediate vicinity and they would also, through no fault of their own, be unlikely to possess this local knowledge. In short, relying upon an assumption that people using this area would all have the benefit of local knowledge and experience of the facility, with a full appreciation of the attendant risks, is not supported by the evidence or by logic.

The Industrial Customers have also indicated that there have been no incidents of concern at that facility with respect to public safety. With respect, this might very well be the result of nothing more than good fortune to date. Waiting until an accident has occurred before installing fences, booms and signs is an abdication of moral and legal responsibility. To this point, Hydro would point out that subsection 37(1) of the Act gives clear direction in this regard:

> 37. (1) A public utility shall provide service and facilities which are reasonably safe and adequate and just and reasonable.

Facilities that were considered to be reasonably safe in the mid 1960's are viewed differently 50 years later. Standards of safety have changed and, in the case of the Bay d'Espoir reservoir, Hydro has been advised that its original design is no longer considered safe and adequate. Hydro submits that this proposal is reasonable and appropriate to deal with the requirement to provide safe facilities. Furthermore, by using external expertise who can provide an objective report using knowledge gained through exposure to other hydroelectric facilities, Hydro has taken a reasonable approach to ascertaining the standards to which it should conform, the shortcomings that exist that need to be addressed, and the particular projects that can effectively mitigate those risks to an acceptable level.

6.8 Install Automated Fuel Monitoring System – Upper Salmon (E-2)

This is a justifiable project based upon the requirement to do weekly site visits to this site for the purposes of diesel fuel tank dipping or alternatively, which is proposed, to install an automated fuel monitoring system.

These diesel tanks fuel the back-up power source to the North Salmon spillway. The weekly site visits are required in order to carry out the weekly tank dips mandated under

Section 18 of the *Storage and Handling of Gasoline and Associated Products Regulations, 2003*. At present, Hydro is dipping tanks monthly and its March 2010 request to the Minister for permission to dip the tanks less frequently than weekly was denied.

The Consumer Advocate has suggested that this project be deferred until confirmation is received that the weekly tank dipping requirement will be waived. There is a very good reason to believe that permission will be granted to dip the tanks less frequently than weekly: by Board Order No. P.U. 31(2005) Hydro had a similar project approved for a diesel tank at its Cat Arm plant and approval was provided in that instance. Upon approval of this project, Hydro can undertake to provide the Board with verification that a variance from weekly tank dipping has been secured once the project has been completed.

6.9 Legal Survey of Primary Distribution Line Right of Way (E-113)

This is the proposed continuation of project which facilitates Hydro attaining easement rights over its distribution lines on Crown Lands. This project has been underway since 2004. Hydro notes that the only point raised by the Intervenors[2] is whether the project could be done more cheaply by in-house surveyors as opposed to contractors. In CA-NLH-104 Hydro was asked whether it had examined the costs of in-house surveyors versus contractors' costs for this project.

Hydro's response was that it did not have the in-house capacity to do so and that it had difficulty in recruiting a permanent surveyor position. The implication is that to do this economically with in-house staff would require the hiring of professional surveyors on a temporary or term basis, a proposition which is unlikely to be successful given the present labour market. Hydro submits that this project should not be rejected or postponed pending the outcome of a labour deployment analysis where Hydro has reasonably concluded that it will not lead to a different outcome due to it being impracticable in the present labour market.

[2] This point was raised by both the Consumer Advocate and the Industrial Customers. While Hydro does not, in this instance, challenge the IC's right to bring this matter to the Board's attention, it should be noted that rates for this customer class do not include rate base amounts or depreciation expense for distribution plant so the cost of this capital project will not affect IC rates.

Hydro believes that the method proposed to execute this project, using professional surveyors on a contract as opposed to an in-house basis, is a prudent and practical manner of proceeding and that this project should be approved.

6.10 Replace Personal Computers (D-234)

Both the Consumer Advocate and the Industrial Customers took issue with the determinations to be made by Hydro as to which Hydro employees are provided with laptops and which are provided with desktops, it being recognized that laptops are more expensive. The Consumer Advocate recommended that Hydro be ordered to demonstrate in its next Capital Budget Application the manner by which this determination is made; the Industrial Customer went further and proposed that this information be provided prior to the awarding of this project flowing from this Capital Budget Application.

In Hydro's view, the analysis proposed is unnecessary, tends towards micro-management, and ought to be rejected. Some quick arithmetic is instructive. The budget proposal estimates that 111 laptops will be purchased at $1,800 each (approximately $200,000) and 166 desktops will be purchased at $1,050 each (approximately $120,000) (CA-NLH-72; CA-NLH-73). In CA-NLH-74 Hydro was asked how the assignments were made between computer types and Hydro stated:

> *The assignment of a particular device is determined by the employee's management/supervision. Generally, if an employee is expected to use their computer while away from the office, a laptop is assigned.*

The person best informed as to work requirements to determine whether an employee requires a laptop is the employee's supervisor or manager. It is easy to consider and identify which employees travel and use their computer for work while away from the office. The criterion stated is an entirely reasonable and workable one which answers the very question that needs to be addressed in making this choice. Assuming for the moment that Hydro's criterion is accepted to be generally sound but that the Consumer Advocate and Industrial Customer would prefer some greater level of specificity or "delineation", one

has to wonder what additional screening tool or process could sensibly be applied that would add value and that would result in a materially different laptop versus desktop outcome than that achieved by leaving it up to the supervisor or manager as described in CA-NLH-74. One could speculate that there could be a rare close case in which a more complex decision matrix or analysis could result in a different decision but, it is submitted, there would likely be very few of these and the overall difference in the amount of money spent in this project, positive or negative, would be negligible. Hydro submits that the Intervenors' proposals that further substantiation be provided to the regulator as to the laptop versus desktop decisions ought to be rejected.

6.11 Replace Auto Greasing Systems Units 1 and 3 (D-116)

This purpose of this proposed project is to replace an approximately 50 year-old turbine greasing system that was installed in the mid 1960's. While there has been only one unit outage attributable to this system there have been 63 work order events for Unit 1 and 43 work order events for Unit 3 whereby lines were blocked, switches failed and various other problems required correction (CA-NLH-55). Difficulties in obtaining parts are arising and there are compatibility issues with some of the parts. There are also problems associated with the copper piping and with the mixing of different grease types including the environmentally friendly canola-based grease used today. Though the probability is low, a failure of the system to provide grease to the wicket gate bushings could result in considerable damage to a unit. This project is required to ensure the continued high reliability of these units to the Island Interconnected grid.

6.12 Front End Engineering and Design (D-231)

Accurately estimating and defining the scope of future capital projects for complex systems and facilities requires taking the project through the conceptual design stage to the basic design stage. This is more than an identification of what solution is required and comparing that solution to alternatives; it involves a basic design of the project with sufficient engineering and project definition to enable an accurate costing of the project with site-specific information.

In the past, Hydro did this Front End Engineering and Design (FEED, sometimes alternatively referred to as Phase 1 engineering) as part of the development work after a capital project was approved based upon a much less reliable level of estimate. Hydro is proposing to now complete this Phase 1 engineering in advance of submitting for approval its capital proposals.

Phase 1 engineering costs that are capital project related can be charged to specific capital projects under International Financial Reporting Standards (IFRS). These are tracked capital costs that can be applied to specific projects. The estimate included in Hydro's Capital Budget Application is intended to cover these costs, which will then be applied to the individual capital projects. They are not allocations or estimates of a general amount of capital related effort and they are not costs associated with capital programs generally, such as compiling capital budget information.

Under Section 41 of the Act, Hydro must have its capital projects pre-approved and the vast majority of these projects are dealt with through the annual capital budget filing, filed each summer. Complex capital projects require a considerable amount of FEED work to ensure the project proposal is sufficiently scoped, designed and estimated for a meaningful project submission to the Board and to reduce the number of unanticipated complications that can arise later when the project goes to through to the final design and execution stages. However, there is a disincentive to doing significant amounts of FEED work prior to project approval if those costs are not recorded as capital costs. In fact, this practice would create an IFRS issue, as the accounting records would record such costs as capital costs related to the asset(s) in question, and the regulated capital costs, as per the annual capital budget proposed to the Board, would exclude such amounts. Hydro 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.

The need for the proposal to collect FEED costs arises from a timing problem. 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 avoids insufficient project definition, inadequate site-specific planning, and unnecessary surprises when the project moves through the final design and execution stages.

The 2013 FEED "project" is perhaps more correctly termed a category of capital spending on, as yet, undetermined projects and in undetermined amounts. In that sense, it is much like the Allowance for Unforeseen Events category. Hydro has provided the amount of FEED costs it estimates it will incur for its 2014 projects. It proposes that it carry out that FEED work in advance of the year the project is executed, collect those costs in this capital costs category, and later distribute those in a project-tracked manner to the projects that are ultimately approved, constructed and included in rate base. FEED costs expended on projects that are not ultimately approved for construction or otherwise do not form part of rate base and will be expensed. This is, again, consistent with accounting principles. There would be no risk to the ratepayer arising from the approval of the capitalization of FEED costs.

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.

As stated above, it is useful to view FEED costs as a capital cost category analogous to the Allowance for Unforeseen Events. In both cases the Board is pre-approving the expenditure of a category of capital related costs but the recovery of those costs is subject to a further process for the Board's consideration. It is a means of allowing the public utility to do the right amount of prudent and timely work to give 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.

Newfoundland Power stated in its submission that Hydro's proposed treatment of its FEED costs results in a reduction of regulatory transparency. Hydro disagrees; the proposed estimating of FEED costs and allocation of these costs to specific projects is completely

transparent and permits Hydro to commence, with approval in principle, appropriate capital spending on projects. The actual expenditures for each project will be specifically identifiable. In this connection, Hydro notes that in a footnote in its submission (footnote 3, page 7), Newfoundland Power states:

> The Board has no jurisdiction over a utility's engineering design work under the *Public Utilities Act* or the *Electrical Power Control Act, 1994*. The Board's jurisdiction is practically limited to determinations of prudency and recovery, whether as an operating or a capital cost.

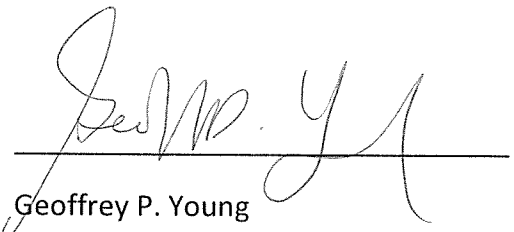
Hydro agrees with this proposition. It is understood and agreed that Hydro is permitted to do engineering design work prior to project approval. The issue is in the treatment, collection and timing of its costs. Hydro wishes to be as transparent as possible that this type of capital related work will be ongoing in each year, in advance of the particular projects to which this works pertains.

Another point made by Newfoundland Power as to transparency (footnote 4, page 8) pertains to the possibility that a capital related FEED expenditure made upon a project that is ultimately rejected by the Board will be written off by Hydro. While Hydro agrees that this could occur, it fails to see how this would impact transparency.[3]

Hydro submits that Hydro's proposals as to the inclusion in its capital budget of its 2012 and 2013 FEED costs is an improvement in its treatment of capital expenses that will facilitate and record appropriate amounts of FEED work being committed in advance of project final design.

[3] Hydro would point out that other regulatory treatment of capital costs, such as general expenses capitalized, while useful and appropriate, can be said to lead to less regulatory transparency of capital costing that Hydro's present proposal.

ALL OF WHICH IS RESPECTFULY SUBMITTED AND DATED at St. John's, in the Province of Newfoundland and Labrador this 9th day of January, 2013.



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