

October 28, 2016

The 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 Corporate Services & Board Secretary

Dear Ms. Blundon:

Re: An Application by Newfoundland and Labrador Hydro pursuant to Subsection 41 (3) of the Act for approval of a capital expenditure to supplement the Allowance for Unforeseen Items for the construction and purchase of certain improvements and additions to its property.

Please find enclosed the original and twelve copies of the above-noted Application, plus supporting affidavit and draft order.

Hydro is presently executing two unforeseen and urgent capital projects, the combined cost of which will exceed the \$1,000,000 Allowance for Unforeseen Items. The enclosed Application seeks the Board's approval of the restoration of the Allowance for Unforeseen Items amount by restoring it to \$1,000,000, which is believed to be an appropriate and prudent amount. The two unforeseen projects that are ongoing in 2016 are briefly described below and are more particularly described in the schedules to the enclosed Application. The Application is filed in accordance with the Capital Budget Application Guidelines issued in October 2007.

Bay d'Espoir Access Roads Refurbishment

On October 10, 2016, Hurricane Matthew tracked over the South Coast of Newfoundland. During this storm, more than 200mm of rain was deposited in the area. Culverts in many areas were not able to keep up with the excessive volume of flowing water, which resulted in 24 extensive wash-outs to the Bay d'Espoir and Upper Salmon access roads. Due to the criticality of the Bay d'Espoir and Upper Salmon generating stations to the Island Interconnected System, work to reinstate these access roads was determined to be necessary to ensure reliable service to customers, and safe operation of the reservoirs.

Hydro determined that this work must be completed using the Allowance for Unforeseen Items. Written notification to the Board regarding the use of the Allowance of Unforeseen Items was provided on October 14, 2016. Work has commenced for this project, and it is scheduled for completion by December 1, 2016. Upon completion of the work, Hydro will file the required report as outlined in the Capital Budget Guidelines (2007). This project is estimated to cost \$4.6 million. See Schedule A to the Application for further information.

Bay d’Espoir Penstock 1 Refurbishment

On September 14, 2016, water was observed running down the side of Bay d’Espoir Penstock 1 due to a leak in the penstock. Bay d’Espoir Units 1 and 2 (total generation capacity of 153MW) was removed from service to isolate the leak and investigate. An investigation guided by an outside consultant began in order to determine the cause and extent of the cracks. Expert evaluation has concluded that the cracks in the penstock are due to substandard workmanship when the penstock was fabricated. The total length of substandard welds that are required to be rehabilitated is approximately 700 linear meters. As a result of the unacceptable welds, Bay d’Espoir Units 1 and 2 are not available for generation until the work to rehabilitate the welds can be completed. Due to the criticality of Bay d’Espoir to the Island Interconnected System, work to repair these welds was determined to be necessary to ensure reliable service to customers.

Hydro determined that this work must be completed using the Allowance for Unforeseen Items. Written notification to the Board regarding the use of the Allowance of Unforeseen Items was provided on October 14, 2016. Work has commenced for this project, and an expedited and aggressive project schedule has been developed to enable a return to reliable operation in time for the winter readiness date of December 1, 2016. Upon completion of the work, Hydro will file the required report as outlined in the Capital Budget Guidelines (2007). This project is estimated to cost \$12.9 million. See Schedule B to the Application for further information.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



Tracey L. Pennell

Senior Counsel, Regulatory

TLP/bs

cc: Gerard Hayes – Newfoundland Power
Paul Coxworthy – Stewart McKelvey Stirling Scales
Sheryl Nisenbaum – Praxair Canada Inc.

Dennis Browne, QC – Consumer Advocate
Thomas O’ Reilly – Cox & Palmer
Larry Bartlett – Teck Resources

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

AND IN THE MATTER OF an Application by Newfoundland and Labrador Hydro pursuant to Subsection 41(3) of the *Act*, for the approval of a capital expenditure to supplement the Allowance for Unforeseen Items for the construction and purchase of certain Improvements and additions to its property.

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

THE APPLICATION OF NEWFOUNDLAND AND LABRADOR HYDRO (Hydro) STATES THAT:

1. Hydro is a corporation continued and existing under the *Hydro Corporation Act, 2007*, is a public utility within the meaning of the *Act* and is subject to the provisions of the *Electrical Power Control Act, 1994*.
2. Section 41(3) of the *Act* states that a public utility shall not proceed with the construction, purchase or lease of improvements or additions to its property where:
 1. the cost of the construction or purchase is in excess of \$50,000; or
 2. the cost of the lease is in excess of \$5,000 in a year of the lease, without the prior approval of the Board.
3. By February 2016, Hydro had four unforeseen, urgent capital projects which depleted the approved 2016 allowance of \$1,000,000. The unforeseen capital

projects were: (i) Western Avalon Terminal Station (WAV) - T5 Tap Changer failure, (ii) Unit 2 Boiler Tube Replacement, (iii) Unit 1 Boiler Tube Replacement, and (iv) Sally's Cove Transmission Line rerouting. On February 24, 2016, Hydro filed an application with the Board requesting approval of a supplementary amount of \$1,000,000 to be added to the 2016 Allowance for Unforeseen Items. This application was approved by the Board in Order P.U.8(2016).

4. Hydro now has two additional unforeseen, urgent capital projects underway that will deplete the supplemental allowance of \$1,000,000 approved in Order P.U. 8(2016). The unforeseen capital projects are: (i) Bay d'Espoir Access Roads Refurbishment and (ii) Bay d'Espoir Penstock 1 Refurbishment. Notices of these unforeseen projects were provided to the Board by Hydro on October 14, 2016. Further details respecting these unforeseen projects are attached as Schedule A and Schedule B to this Application.

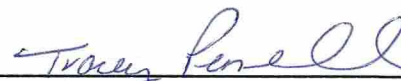
The Application

5. The Capital Budget Guidelines issued by the Board in October 2007 permit a utility to apply for approval of an additional amount in the Allowance for Unforeseen Items account provided the utility shows that usage of the account has been consistent with the Guidelines.

6. Hydro submits that it is prudent to maintain an appropriate Unforeseen Allowance of \$1,000,000 to permit Hydro to address unforeseen events that may arise during the remainder of 2016. Hydro recognizes that it has depleted the allowance; this means that there will not be sufficient funds to address any future unforeseen events, and requests that the Board approve a supplementary allowance of \$1,000,000 for that purpose.

7. Therefore, Hydro makes Application that the Board make an Order approving pursuant to Section 41 (3) of the *Act*, the additional amount of \$1,000,000 to be added to the Allowance for Unforeseen Items account.

DATED at St. John's, in the Province of Newfoundland and Labrador, this 28th day of October 2016.



Tracey L. Rennell
Counsel for the Applicant
Newfoundland and Labrador Hydro
500 Columbus Drive, P.O. Box 12400
St. John's, NL A1B 4K7
Telephone: (709) 778-6671
Fascimile: (709) 737-1782

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

AND IN THE MATTER OF an Application by Newfoundland and Labrador Hydro pursuant to Subsection 41(3) of the *Act*, for the approval of a capital expenditure to supplement the Allowance for Unforeseen Items for the construction and purchase of certain Improvements and additions to its property.

AFFIDAVIT

I, Kyle Tucker, Professional Engineer, of St. John's in the Province of Newfoundland and Labrador, make oath and say as follows:

1. I am the manager of Regulatory Engineering of Newfoundland and Labrador Hydro, the Applicant named in the attached Application.
2. I have read and understand the foregoing Application.
3. I have personal knowledge of the facts contained therein, except where otherwise indicated, and they are true to the best of my knowledge, information and belief.

SWORN at St. John's in the)
Province of Newfoundland and)
Labrador)
this 28th day of October 2016,)
before me:)


Barrister – Newfoundland and Labrador


Kyle Tucker

(DRAFT ORDER)
NEWFOUNDLAND AND LABRADOR
BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

AN ORDER OF THE BOARD

NO. P.U. __ (2016)

1 **IN THE MATTER OF** the *Electrical Power*
2 *Control Act*, RSNL 1994, Chapter E-5.1 (the
3 *EPCA*) and the *Public Utilities Act*, RSNL 1990,
4 Chapter P-47 (the *Act*), and regulations thereunder;

5
6 **AND IN THE MATTER OF** an Application
7 by Newfoundland and Labrador Hydro
8 pursuant to Subsection 41(3) of the *Act*, for
9 the approval of a capital expenditure to
10 supplement the Allowance for Unforeseen
11 Items for the construction and purchase of certain
12 Improvements and additions to its property.

13
14 **WHEREAS** the Applicant is a corporation continued and existing under the *Hydro Corporation*
15 *Act, 2007*, is a public utility within the meaning of the *Act*, and is subject to the provisions of the
16 *Electrical Power Control Act, 1994*; and

17
18 **WHEREAS** in Order No. P.U. 33(2015) the Board approved Hydro's 2016 Capital Budget in
19 the amount of \$183,082,800; and

20
21 **WHEREAS** in Order No. P.U. 8(2016), the Board approved the addition of a supplementary
22 amount of \$1,000,000 to the 2016 Allowance for Unforeseen Items above the \$1,000,000
23 Allowance for Unforeseen items approved in Order No. P.U. 34(2015); and

24
25 **WHEREAS** on October 28, 2016 Hydro filed an application with the Board requesting
26 approval of supplementary amount of \$1 million to be added to the Allowance for Unforeseen
27 Items approved in Order No. P.U. 33(2015) and Order P.U. 8(2016) (the "Application"); and

28
29 **WHEREAS** Section 41(3) of the *Act* requires that a public utility not proceed with the
30 construction, purchase or lease of improvements or additions to its property where:

- 31 a) the cost of construction or purchase is in excess of \$50,000; or
32 b) the cost of the lease is in excess of \$5,000 in a year of the lease,

33
34 without prior approval of the Board; and

35
36 **WHEREAS** Hydro has two unforeseen, urgent capital projects underway that have depleted the
37 approved 2016 supplementary allowance of \$1,000,000: (i) Bay d'Espoir Access Roads
38 Refurbishment and (ii) Bay d'Espoir Penstock 1 Refurbishment; and

1 **WHEREAS** Hydro submits that it is prudent to maintain sufficient amounts in the Allowance
2 for Unforeseen Items to permit Hydro to address unforeseen events that may arise during the
3 remainder of 2016, and requests that the Board approve another supplementary amount of \$1
4 million for that purpose; and
5

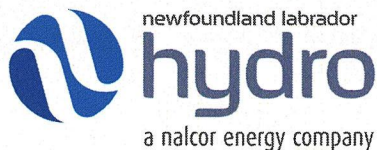
6 **WHEREAS** the Capital Budget Guidelines (the "Guidelines") issued by the Board in October
7 2007 permit a utility to apply for approval of a supplementary amount provided the utility shows
8 that usage of the account has been consistent with the Guidelines; and
9

10 **WHEREAS** the Board is satisfied that the supplementary amount of \$1 million for the
11 Allowance for Unforeseen Items should be approved.
12

13 **IT IS THEREFORE ORDERED THAT:**
14

- 15 1. The addition of a supplementary amount of \$1 million to the 2016 Allowance for
16 Unforeseen Items is approved.
17
- 18 2. Hydro shall pay all expenses of the Board arising from this Application.

DATED at St. John's, Newfoundland and Labrador, this ____ day of _____, 2016.



Hydro Place, 500 Columbus Drive,
P.O. Box 12400, St. John's, NL
Canada A1B 4K7
t. 709.737.1400 f. 709.737.1800
www.nlh.nl.ca

October 14, 2016

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: Bay d'Espoir Access Roads Refurbishment
Allowance for Unforeseen Notification

On October 10, 2016, Hurricane Matthew tracked over the South Coast of Newfoundland. During this storm, more than 200mm of rain was deposited in the area. The Bay d'Espoir Generating Station recorded 207mm during this event. Most of the rain fell in a short period of time, causing rivers and streams to rise quickly, overflow their banks, and move large amounts of earth and trees. Culverts in many areas were not able to keep up with the excessive volume of flowing water which resulted in water flowing across roads.

Fortunately, there was no damage to the reservoir infrastructure and all dams are intact.

Over 400km of gravel roads connect the generating stations in the system and provide access to reservoirs and water control structures. After the rain stopped, an inspection via helicopter identified 24 extensive wash-outs in the Bay d'Espoir and Upper Salmon access roads in addition to areas with less extensive damage that will also require attention to return the access road to service.

The photographs below give an indication of the storm damage. Photo #1 (below) shows a section of the road to the Upper Salmon Generating Station where the road was washed out and requires extensive rehabilitation work. Photo #2 shows a road washout between the Bay D'Espoir Generating Station and the Surge tanks. Photo #3 shows culverts that were displaced well downstream from a washout location.





These access roads are regularly used by Hydro employees to travel to Hydro's remote generating stations, structures and dams to perform maintenance and operations activities. Bay d'Espoir and Upper Salmon are two critical hydraulic generating stations on the island of Newfoundland and thus need to be accessible to ensure reliable service for Island Interconnected customers.

The work to reinstate these access roads requires culverts and fill, in large quantities. Preliminary information obtained by Hydro suggests that timely ordering of replacement culverts is critical to delivery of the culverts due to the competing requests coming from across the island as a result of significant damage to other roads throughout the province caused by the same rain event. Further, any delay in commencing the project can push the execution of the road reestablishing into the colder temperatures when road fill can be come frozen and hard to obtain and therefore place in the washed out road ways.

The Bay d'Espoir Access Roads Refurbishment project is of an urgent and unforeseen nature, and is required to enable Hydro to provide reliable service to customers, and safe operation of the reservoirs. Hydro is therefore proposing to execute this work using its Allowance for Unforeseen Items account. The preliminary estimate for this work is \$4.6 million.

Hydro recognizes this level of expenditure is above the Allowance for Unforeseen Items allocation and will therefore be applying to top up the Allowance for Unforeseen Items account.

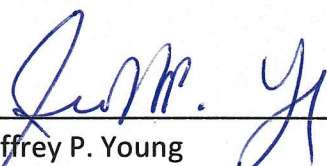
Ms. Cheryl Blundon
Public Utilities Board

4

Should you have any questions, please contact the undersigned.

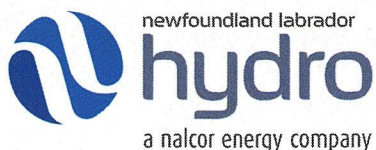
Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



Geoffrey P. Young
Corporate Secretary and General Counsel

GPY/bs



Hydro Place, 500 Columbus Drive.
P.O. Box 12400, St. John's, NL
Canada A1B 4K7
t. 709.737.1400 f. 709.737.1800
www.nlh.nl.ca

October 14, 2016

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: Bay d'Espoir Penstock 1 Refurbishment
Allowance for Unforeseen Notification

On September 14, 2016, water was observed running down the side of Bay d'Espoir Penstock 1 due to a leak in the penstock. Bay d'Espoir Units 1 and 2 (total generation capacity of 153MW) was removed from service to isolate the leak and investigate.

This leak occurred approximately 5 meters upstream of a previous leak that was identified in Penstock 1 on May 21, 2016. At the time of the first leak, expert evaluation concluded that the crack in the penstock was a localized weakness due to workmanship when the penstock was fabricated. A weld repair was performed on the leak in May, and the penstock was returned to service.

With the occurrence of the second crack, the question arose if the issue was actually localized or indeed more widespread. As such, an investigation guided by an outside consultant, began on the cause of the cracks. A methodical inspection process began in the vicinity of the two cracks and as unacceptable welds continued to be discovered, the inspection expanded accordingly until the extent of unacceptable welds was found. Where the welds were found to be unacceptable, the welds contained cracks, had porous surfaces, and were eroded below the level of the base material. These welds have to be replaced to ensure sufficient strength for reliable penstock operation. The total length of substandard welds that are required to be rehabilitated is approximately 700 linear meters. The photo (below) shows an example of an unacceptable weld.



As a result of the unacceptable welds, Bay d'Espoir Units 1 and 2 are not available for generation until the work to rehabilitate the welds can be completed. An expedited and aggressive project schedule has been developed to enable a return to reliable operation in time for the winter operating season.

The Bay d'Espoir Penstock 1 Refurbishment is of an urgent and unforeseen nature, and is required to enable Hydro to provide reliable service to customers. Hydro is therefore initiating a project under Allowance for Unforeseen Items account. It is estimated that the total cost of the work will be approximately \$12.9 million.

Hydro recognizes this level of expenditure is above the Allowance for Unforeseen Items allocation and will therefore be applying to top up the Allowance for Unforeseen Items account.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO

Geoffrey P. Young
Corporate Secretary and General Counsel
GPY/bs