

November 20, 2014

The Board of Commissioners of Public Utilities
Prince Charles Building
120 Torbay Road, P.O. Box 21040
St. John's, Newfoundland & Labrador
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.

The Application seeks the Board's approval of the restoration of the Allowance for Unforeseen Items amount by adding an additional \$250,000 to the allowance, which is believed to be an appropriate and prudent amount to be added at this time. The need for this supplementary allowance arises from the unforeseen requirement to complete the emergency restoration projects outlined below in 2015. The Application is filed in accordance with the Capital Budget Application Guidelines issued in October 2007.

Unit Service Transformer for Generating Unit 3 (UST-3) at the Holyrood Thermal Generating Station

An oil sample was taken from UST-3 on November 1, 2015. The sample results indicated gassing within the transformer and a major inspection and potential resulting repair were determined to be necessary to undertake before winter 2015-2016, to maintain the ability to generate reliably through the coming winter season. Therefore, Hydro determined this work must be completed using the Allowance for Unforeseen. Written notification to the Board of Commissioners of Public Utilities (the Board) regarding the use of Allowance for Unforeseen was provided on November 12, 2015. This work is currently underway, expected to be complete in less than a week from this application. Upon completion of the work, Hydro will file the required report as outlined in the Capital Budget Guidelines (2007). This project is estimated to be between \$100,000 to \$150,000. See attached written notification containing further information.

Western Avalon Terminal Station (WAV) T5 Tap Changer

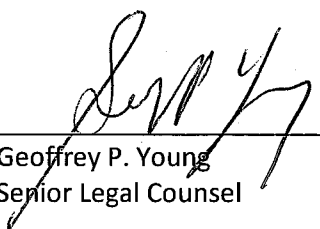
On November 8, 2015, the tap changer on WAV T5 experienced an internal fault. This tap changer was placed in service approximately a year ago, following a failure of the original tap changer at this location.

In order to restore the Western Avalon to Holyrood transformer capacity, and minimize risk of outages should another contingency in the loop occur in the pending winter period, Hydro requires the use of Unforeseen Capital Allowance to complete a replacement of the tap changer. Written notification to the Board regarding the use of Allowance for Unforeseen was provided on November 16, 2015. This work is currently underway and expected to be completed near Christmas. Upon completion, Hydro will file the required report as outlined in the Capital Budget Guidelines (2007). This project is estimated to be between \$650,000 and \$750,000. Hydro notes that an investigation into the cause of the failure of this relatively new piece of equipment is occurring in parallel to with the replacement and loop reinstatement work. Should the investigation determine any potential warranty claim, the use of Allowance for Unforeseen would be adjusted as necessary. See attached written notification containing further information.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



Geoffrey P. Young
Senior Legal Counsel

GPY/bs

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

Thomas Johnson – Consumer Advocate
Thomas O' Reilly – Cox & Palmer

November 12, 2015

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: 2015 Allowance for Unforeseen Events

Unit Service Transformer (UST-3) for Unit 3 at Holyrood Thermal Generating Station is a 1978, Canadian General Electric 16/ 4.16 kV, 10 MVA transformer. This transformer is critical for Holyrood Unit 3 to reliably supply electricity to the Island Interconnected System. UST-3 is presently exhibiting gassing and requires an immediate inspection and potential repair that will require the use of unforeseen capital allowance.

In April 2015, Hydro completed a Dissolved Gas Analysis (DGA) on this transformer. At that time, follow up testing of the off load tap changer showed winding resistance values requiring corrective maintenance to address. Following the corrective maintenance, follow up testing values were acceptable. With the acceptable test results, the unit went into service, and Hydro planned to closely monitor the transformer. If gassing increased, the transformer would be internally inspected. Throughout the summer, Unit 3 was operating in Synch Condense mode until mid-August and the DGA levels were stable. An oil sample taken on November 1 showed gassing increasing. Around this time, the load on Unit 3 had been increasing.

Hydro wants to inspect for the cause of the gassing that appears to be associated with increased loading. It is appropriate for Hydro to complete this work now, in advance of increased loading in the winter period. If Hydro is to delay the work and wait for the gassing levels to increase further before action is taken, then UST-3 could have to come offline in an unplanned fashion, in winter, when Unit 3 is essential to system supply.


Since the DGA was completed on the sample taken November 1, Hydro has made arrangements with a transformer representative to complete an inspection, and be ready for potential typical repair maintenance that addresses this type of gassing. This work is planned to be completed immediately upon Holyrood Unit 1 coming back online, which is currently planned to be November 13. Hydro must wait for Unit 1 to be online as Unit 3 will have to be offline for this maintenance work. The work is expected to take less than a week.

This work is required to be initiated immediately to ensure reliable electricity supply to the Island Interconnected System. As this work is of an urgent nature and has to be completed in advance of winter and increased Unit 3 loading, Hydro requires this work to be covered under an unforeseen expense. The current estimate total, including both internal and contractor costs, is estimated to be approximately \$100,000 to \$150,000.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO


Tracey L. Pennell
Legal Counsel

TLP/cp

November 16, 2015

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: Western Avalon Terminal Station (WAV) - T5 Tap Changer
Allowance for Unforeseen Notification**

The Western Avalon Terminal Station (WAV) Transformer T5 is a 230/138 kV, 75/100/125 MVA transformer (WAV T5) and it has an associated on load tap changer. On November 8, 2015, the tap changer experienced an internal fault. The transformer T5 and tap changer are, therefore, currently out of service and isolated from the system. The tap changer was placed in service in late 2014 following a failure of the original tap changer in January 2014. In order to restore the Western Avalon to Holyrood transformer capacity, and minimize risk of outages should another contingency in the loop occur in the pending winter period, Hydro will require the use of unforeseen capital allowance to complete a replacement of the tap changer.

Following the fault, oil from the transformer and tap changer spilled into the terminal station yard. The clean-up work for this oil spill is not included in the unforeseen capital allowance expenditure.

Hydro engaged Reinhausen (tap changer manufacturer) to come to site immediately and assess the tap changer. Reinhausen inspected the tap changer on November 10 and found significant damage, indicating it will not be salvageable. The bottom of the tap changer diverter switch had blown out into the transformer main tank. There was burning on both the top and middle phase of the diverter switch, with tracking across the insulation between the top and middle phases.

Hydro also engaged CG Global (transformer representative) to do an internal inspection to assess for any damage to the transformer. This inspection was completed on November 11 and testing continued into November 12. The inspector found no apparent damage to the transformer. There was debris from the tap changer diverter switch in the bottom of the

transformer tank, but CG indicated damage appears to be limited to the tap changer diverter switch assembly. Final formal opinion on the transformer health is pending.

Hydro has engaged a contractor to clean and prepare the transformer for pending replacement work to the tap changer and refilling of the transformer. This work is ongoing. Further, as of November 13, Hydro has ordered the required tap changer equipment with an estimated delivery of 6 weeks. Hydro is working with Reinhausen to expedite this delivery. Internally, Hydro is planning the required work package to execute as safely and quickly as possible when the equipment is delivered.

This work is required to be initiated immediately to reestablish reliable electricity supply to the Island Interconnected System, specifically in the Holyrood to Western Avalon loop. Hydro requires this work to be covered under an unforeseen expense. The current estimate is approximately \$650,000 to \$750,000 and includes the following major subcomponents:

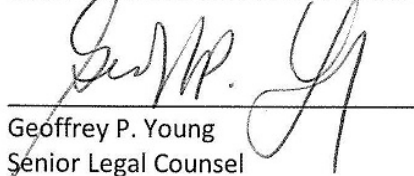
- Contractor performing transformer cleaning and preparing for placing back in service;
- Purchase of tap changer;
- Contractor installation of tap changer;
- Engineering, on site supervision, and project management; and
- Contingency.

Hydro is investigating the cause of the failure, and is incorporating the previous failure details in this investigation. Hydro has engaged external resources to analyze aspects of the tap changer failure and provide input into the root cause investigation. If suggested or required system/equipment improvements result from the investigation, any costs or schedule changes associated with those improvements will be communicated with the Board prior to proceeding, as they may not be covered under this allowance.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



Geoffrey P. Young
Senior Legal Counsel

GPY/bs

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.

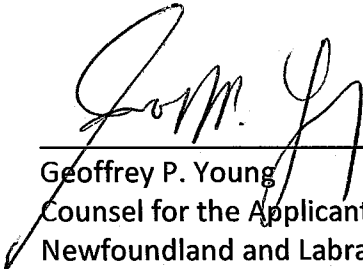
3. Hydro anticipates depleting the approved 2015 allowance of \$1,000,000 by, on the low end, \$750,000, to, on the high end, \$900,000. This is to cover the costs of the following unforeseen events which are currently underway: (i) The Unit Service Transformer for generating Unit 3 (UST-3) at Holyrood Thermal Generation Station inspection and repair, and (ii) Western Avalon Terminal Station (WAV) - T5 Tap Changer failure. Notices of these unforeseen projects were provided to the Board by the Applicant on November 8, 2015 and November 16, 2015, respectively. For the two projects, there are no costs yet charged, as both events began in November 2015.

The Application

4. 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.
5. Hydro submits that it is prudent to maintain an appropriate Unforeseen Allowance of to permit Hydro to address unforeseen events that may arise during the remainder of 2015. Hydro recognizes that the presently remaining allowance may not provide for sufficient funds to address unforeseen events, and requests that the Board approve a supplementary allowance of \$250,000 for that purpose; and

6. Therefore, Hydro makes Application that the Board make an Order approving pursuant to Section 41 (3) of the *Act*, the additional amount of \$250,000 to be added to the Allowance for Unforeseen Items account.

DATED at St. John's, in the Province of Newfoundland and Labrador, this 20th day of November 2015.



Geoffrey P. Young
Counsel for the Applicant
Newfoundland and Labrador Hydro
500 Columbus Drive, P.O. Box 12400
St. John's, Newfoundland, A1B 4K7
Telephone: (709) 737-1277
Facsimile: (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.

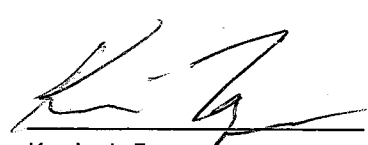
AFFIDAVIT

I, Kevin J. Fagan, of St. John's in the Province of Newfoundland and Labrador, make oath and say as follows:

1. I am Manager, Rates and Regulation, 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 20th day of)
November 2015, before me:)


Barrister – Newfoundland and Labrador


Kevin J. Fagan

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

AN ORDER OF THE BOARD

NO. P.U. __ (2015)

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.

WHEREAS the Applicant 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*; and

WHEREAS in Order No. P.U. 50(2014) the Board approved Hydro's 2015 Capital Budget in the amount of \$76,832,900; and

WHEREAS on November 20, 2015 Hydro filed an application with the Board requesting approval of a supplementary amount of \$250,000 to be added to the Allowance for Unforeseen Items approved in Order No. P.U. 50(2014) (the "Application"); and

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

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

without prior approval of the Board; and

WHEREAS the Application states that it has communicated to the Board on November 8, 2015 and November 16, 2015, respectively, that unforeseen capital expenditures estimated between approximately \$750,000 to \$900,000 are currently underway with regard to: (i) the Unit Service

1 Transformer for generating Unit 3 (UST-3) at Holyrood Thermal Generation Station inspection
2 and repair, and (ii) Western Avalon Terminal Station (WAV) - T5 Tap Changer failure; and
3 **WHEREAS** Hydro submits that it is prudent to maintain sufficient amounts in the Allowance
4 for Unforeseen Items to permit Hydro to address unforeseen events that may arise during the
5 remainder of 2015, and requests that the Board approve a supplementary amount of \$250,000 for
6 that purpose; and
7

8 **WHEREAS** the Capital Budget Guidelines (the "Guidelines") issued by the Board in October
9 2007 permit a utility to apply for approval of a supplementary amount provided the utility shows
10 that usage of the account has been consistent with the Guidelines; and
11

12 **WHEREAS** the Board is satisfied that the supplementary amount of \$250,000 for the Allowance
13 for Unforeseen Items should be approved.
14

15 **IT IS THEREFORE ORDERED THAT:**
16

- 17 1. The addition of a supplementary amount of \$250,000 to the 2015 Allowance for
18 Unforeseen Items is approved.
19
20 2. Hydro shall pay all expenses of the Board arising from this Application.

DATED at St. John's, Newfoundland and Labrador, this ____ day of _____, 2015.

