

June 19, 2014

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: An Application by Newfoundland and Labrador Hydro (Hydro) pursuant to Subsection 41 (3) of the Act for the approval of the installation of additional transformation at the Wabush Substation.


Please find enclosed the original and 12 copies of the above-noted Application, plus supporting affidavit, project proposal, and draft order.

This project involves the relocation of the QTZ-T2 transformer from the Quartzite Substation in Labrador City for installation at the Wabush Substation. In order to achieve this, several station modifications will be required at the Wabush Substation, including a new concrete base foundation for the transformer and modifications to the existing high voltage bus work and protection and control systems in the existing buildings at the Wabush Substation. This project is necessary to ensure that Hydro can maintain reliability of the Wabush system.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



Tracey L. Pennell
Legal Counsel

TLP/cp

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

Thomas Johnson – Consumer Advocate
Thomas J. O'Reilly, Q.C. – Cox & Palmer

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 the installation of additional transformation at the Wabush Substation.

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. The Wabush Distribution System supplies electrical service to the community of Wabush in Western Labrador. The distribution system was originally constructed by Wabush Mines in the 1960s. In 1985, Wabush Mines transferred ownership of the distribution system to Hydro. The Wabush Distribution System consists of a 46 kV subtransmission line (line 36), a distribution substation (Wabush Substation) and six 12.5 kV distribution feeders (Line 3, Line 7, Line 9, Line 11, Line 12 and Line 13) and is essential in the supply of electrical service to Wabush.

3. The Wabush Substation provides power for the Wabush Distribution System. The distribution system operates at 12.5 kV and has a total of three step-down power transformers which reduce the sub-transmission line voltage from 46 kV to 12.5 kV. The substation has a total installed transformation capacity of 24.6 MVA and firm capacity (with the largest unit out of service) of 14.3 MVA. Currently transformer T5 is not available for service due to increased moisture levels in the transformers oil and insulation. With T5 out of service, the capacity is reduced to 20.6 MVA. According to Hydro's Operation Load Forecast for Wabush, peak demand is forecasted to reach 21.7MW during the winter of 2014/2015. This exceeds the current available transformation capacity of the Wabush Substation.
4. Part of Hydro's planning criteria is to ensure that all substations have sufficient transformation capacity to meet forecast demand. With T5 out of service, Hydro is not meeting its planning criteria.
5. The Quartzite Substation in Labrador City will be decommissioned by Hydro by the end of summer 2014. Hydro proposes to move the 10/13.3/16.7 MVA transformer currently designated as QTZ-T2 at the Quartzite Substation in Labrador City to the Wabush Substation. This will provide the transformer capacity at the Wabush Substation and will ensure that Hydro can provide reliable power to its customers for 2014/2015 winter season and beyond.

6. Several modifications are required in order to prepare the Wabush Substation to accept the transformer: A new concrete base is required as a foundation for the transformer; the existing high voltage bus work will require modification to enable the integration of the new transformer; and the protection and control systems in the existing control building will require modification to accommodate the transformer addition.
7. Hydro is recommending the relocation and installation of the QTZ-T2 transformer at the Wabush Substation along with the required substation modifications as this is the least cost option over the long term. Details regarding Hydro's proposal to install the transformer are contained in the attached project proposal document.
8. The completion of the installation of the additional transformer capacity at the Wabush Substation is required to ensure that Hydro can continue to provide safe, reliable and adequate service from this essential facility and maintain reliability of the Wabush system.
9. The estimated cost of this project is \$958,800.
10. The Applicant submits that the proposed capital works and expenditures are necessary to ensure that this facility can continue to provide service

which is safe and adequate and just and reasonable as required by Section 37 of the Act.

11. Therefore, Hydro makes Application that the Board make an Order approving, pursuant to Subsection 41(3) of the Act, the capital expenditure of \$958,800 for the installation of QTZ-T2 transformer and substation modifications at the Wabush Substation as set out in this Application and in the attached project description and justification document.

DATED at St. John's, in the Province of Newfoundland and Labrador, this 19th day of June, 2014.



Tracey L. Pennell
Counsel for the Applicant
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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 the installation of additional transformation at the Wabush Substation.

AFFIDAVIT

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

1. I am Vice-President 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 19th day of June 2014,)
before me:)


Barrister - Newfoundland and Labrador


Robert J. Henderson

**A REPORT TO
THE BOARD OF COMMISSIONERS OF PUBLIC UTILITIES**

	Electrical
	Mechanical
	Civil
	Protection & Control
	Transmission & Distribution
	Telecontrol
	System Planning

Installation of Additional Transformation Wabush Substation

Newfoundland and Labrador Hydro

June 2014



1 SUMMARY

This project is justified based on a violation of Hydro's planning criteria. The criterion states that all substations must have sufficient transformer capacity to meet forecasted load. Currently, there is a deficiency in transformer capacity at the Wabush Substation to meet the forecasted load.

The substation currently has a total installed transformer capacity of 24.6 MVA or 23.9 MW at a power factor (pf) of 0.97. The substation is comprised of three transformers, T3, T4 and T5. Transformer T5 has a capacity of 4 MVA; however it is currently not available for service due to increased moisture levels. T3 and T4 each have a capacity of 10.3 MVA, for a total of 20.6 MVA, or 20 MW at a 0.97 pf. According to the 2014 Operating Load Forecast, the peak demand is forecasted to reach 21.7 MW during the winter of 2014/15, which exceeds the current available transformation capacity of the Wabush Substation. In addition, there is a recent request submitted to Hydro to provide electrical service to a construction camp in Wabush, which is anticipated to have a demand of approximately 3.5 MW. As a result, the Wabush Substation may be expected to provide a demand of over 25 MW by the 2015/2016 winter peak.

There were five alternatives considered to address this transformation capacity deficit at the Wabush Substation; (1) maintain the status quo; (2) rehabilitate transformer T5, which is currently out-of-service; (3) relocate the Quartzite T2 transformer from Quartzite Substation, which will be available early this fall; (4) purchase and install a new transformer; (5) install diesel generation elsewhere on the system of Wabush to offset the load. Hydro proposes to relocate and install Quartzite T2, as it is the most viable option to accommodate the growing demand in Wabush.

The old 46 kV/4.16 kV Quartzite Substation in Labrador City will be decommissioned by the end of summer 2014. It is proposed to move the 10/13.3/16.7 MVA transformer currently designated as QZT-T2 to the Wabush Substation. This will increase the available transformation capacity in the Wabush substation to 37.3 MVA or 36.2 MW (0.97 pf).

1 The consequences of not executing this proposed project by the winter of 2014/2015 would be
2 insufficient transformation capacity at the Wabush Substation. This would increase the probability
3 of a transformer overload which is likely to result in rotating customer outages during peak
4 customer demand conditions. These peak conditions typically occur during severe weather
5 conditions when the supply of power is the most crucial. Depending on the severity of the outages,
6 the Town of Wabush may have to declare a state of emergency.

7
8 Several station modifications will be required in order to prepare the Wabush Substation to accept
9 the transformer. A new concrete base is required as a foundation for the transformer, the existing
10 high voltage bus work will require modification to enable the connection of the new transformer,
11 and the protection and control systems in the existing control building will require modification to
12 accommodate T2.

13
14 This project is estimated to cost \$958,800 and must be completed by November 2014 (See Table 4
15 in Section 4.2).

TABLE OF CONTENTS

1	SUMMARY	i
2	PROJECT DESCRIPTION.....	1
3	JUSTIFICATION	3
3.1	Existing System	3
3.2	Forecasted Load Growth.....	5
3.3	Development of Alternatives.....	8
4	CONCLUSION.....	10
4.1	Budget Estimate	10
4.2	Project Schedule	11
	APPENDIX A.....	A1

2 PROJECT DESCRIPTION

This project will involve the installation of an additional transformer in the Wabush Substation. With the existing T5 transformer not available due to moisture in the oil, the objective of this project is to ensure that there is sufficient transformer capacity in the Wabush Substation to meet peak demand for the winter of 2014/15 and beyond.

It is expected that decommissioning of the (old – 46kV/4.16kV) Quartzite Substation in Labrador City will be completed during the summer of 2014. The current deficiency in transformation capacity at Wabush Substation can be adequately addressed by relocating the transformer currently designated as QTZ-T2 in the (old) Quartzite Substation to the Wabush Substation. Transformer QTZ-T2 is rated at 10/13.3/16.7 MVA with a 46kV primary and dual voltage secondary (12.5kV-4.16kV). Some of the associated switchgear currently in use at the Quartzite Substation can also be reused in the Wabush Substation.

Several modifications to the Wabush Substation are required in order to accept the transformer. The following work is necessary to accommodate the installation of T2 in the Wabush Substation:

- The refurbishment of Transformer QTZ-T2 including:
 - Installation of new lightning arrestors;
 - Reconditioning of the transformer oil; and
 - Re-gasketing, sanding and painting.
- The relocation of QTZ-T2 from the old Quartzite Substation to the Wabush Substation. The pouring of a new concrete support pad for QTZ-T2. The total mass of the transformer is 20,700 kilograms.
- Modifications to the 12.5 kV and 46 kV buses. The conductors for the primary and secondary of T2 will need to be connected to the existing 12.5 kV buses (B3 and B5) and 46 kV bus (B4).

- 1 • The purchase and installation of a fused disconnect on the high voltage side of T2 for
2 isolation and protection purposes.
- 3 • The purchase and installation of two disconnect switches for isolation and
4 operational purposes (T2B5-1 and T2B3-1).
- 5 • The connection of the transformer to both 12.5 kV buses B3 and B5 with appropriate
6 disconnect switches. Temporary connections to the 46 kV bus will be made using
7 wood poles and cross arms.
- 8 • Station service alterations to support the addition of fans for T2.
- 9 • The protection and controls for the transformer must be integrated into the existing
10 control building. This will require some modification of the existing protection and
11 control panels. Specifically, additional protective relaying and isolation switches will
12 be required to adequately protect and operate the transformer.

13
14 The work must be completed by September 2014 (with project close-out by November
15 2014) to ensure the transformation is available for the next peak winter demand season.
16 Otherwise an outage to an existing transformer during the severe winters in Labrador West
17 could lead to a state of emergency in Wabush.

18
19 It should be noted that the proposed configuration under this project is considered
20 temporary. However, QZT-T2 transformer will eventually be permanently installed and
21 used to supply power to the Town of Wabush. Hydro's System Planning Department is
22 currently investigating future alternatives for upgrading the Wabush Substation. These
23 future alternatives have no bearing on the justification of this proposed work, because T2
24 will be part of any alternative Hydro considers. A single line diagram of the proposed
25 alterations to the Wabush Substation is provided in Appendix A.

3 JUSTIFICATION

This project is justified on the basis of maintaining reliability on the distribution system in the Town of Wabush. Additional transformation capacity is necessary to ensure that there is sufficient transformer capacity in the Wabush Substation to meet peak demand for the winter of 2014/15. The substation currently has a total installed transformer capacity of 24.6 MVA or 23.9 MW (0.97 pf). With T5 out of service, this is reduced to 20.6 MVA or 20.0 MW. Table 1 lists the voltage and power ratings for each power transformer. The peak demand is forecasted to reach 21.7 MW during the winter of 2014/15 (See Table 2).

The completion of the Labrador City Voltage Conversion project¹ will make a 10/13.3/16.7 MVA, 46 kV/12.5 kV-4.16 kV transformer (QTZ-T2) available from the old Quartzite Substation. QZT-T2 is suitable as a transformer for the Wabush Substation. Therefore, the purchase of a new transformer is not required. This minimizes cost and eliminates scheduling issues that might result from the long lead time required to purchase a new transformer.

Lack of sufficient transformation capacity in Wabush could result in the requirement for periods of rotating customer outages or even extended blackouts. Depending on the severity of the outages, a state of emergency could be declared.

3.1 Existing System

The Wabush Distribution System supplies electrical service to the community of Wabush in Western Labrador. The system consists of a 46 kV subtransmission line (Line 36), a distribution substation (Wabush Substation), and six 12.5 kV distribution feeders (Line 3, Line 7, Line 9, Line 11, Line 12, and Line 13).

The distribution system was originally constructed by Wabush Mines in the 1960s and

¹ Proposed as part of the 2009 Capital Budget Application

1 experienced several additions throughout the 1960s and 1970s. In 1985, Wabush Mines
2 transferred ownership of the distribution system to Hydro. The system at that time
3 consisted of a sub-transmission line, a substation featuring 5 kV Westinghouse switchgear,
4 and seven 4.16 kV distribution feeders.

5
6 Similar to the distribution system of Labrador City, the Wabush system required a
7 considerable amount of upgrading to bring it up to Hydro's standards, and to provide
8 acceptable service to existing and future customers. Hydro has completed major upgrades
9 to the system over the past five years which include converting and reconfiguring the
10 existing 4.16 kV distribution feeders into six 12.5 kV distribution feeders and installing
11 conventional outdoor substation equipment such as transformers, disconnects, bus work,
12 and feeder reclosers. These upgrades have resulted in the distribution system that
13 currently exists. A single line of the existing Wabush Distribution System can be found in
14 Appendix A.

16 **3.1.1 Wabush Subtransmission Line L36**

17 The primary supply to the distribution system in the community of Wabush is
18 subtransmission line L36, a single source 46 kV line that supplies power to Hydro's Wabush
19 Substation from a terminal station owned by the Twin Falls Power Company Ltd. (TWINCo).
20 The line is 3.8 km long, and utilizes three-wire (delta) construction supporting 4/0 AASC
21 phase conductors. The line was rerouted and completely rebuilt in 2009. Even though the
22 line is considered to be a distribution line by voltage class, functionally the line performs as
23 a bulk power transmission path between TWINCo's Terminal Station and the Wabush
24 Substation, and is thus referred to as a subtransmission line. The line is the sole supply for
25 the Wabush Substation. Voltage regulation for the entire system is provided through this
26 line by TWINCo's synchronous condensers located in TWINCo's Terminal Station.

3.1.2 Wabush Substation

The Wabush Substation provides power for Hydro's distribution system in the community of Wabush. The substation has a single source of power via subtransmission line L36 from the TWINCo Terminal Station. In order to increase the safety and system reliability and performance, the substation was divided into two voltage levels, 4.16 kV and 12.5 kV, following the upgrade work completed by Hydro in 1985. Today the distribution system operates at 12.5 kV and has a total of three step-down power transformers which reduce the subtransmission line voltage from 46 kV to 12.5 kV. The substation currently has a total installed transformation capacity of 24.6 MVA or 23.9 MW at 0.97 pf. Currently, T5 is not available for service. With T5 out of service, the capacity is reduced to 20.6 MVA or 20.0 MW. Table 1 lists the voltage and power ratings for each power transformer.

Table 1: Wabush Substation Distribution Power Transformers

Transformer	Power Rating (MVA)	Voltage Rating (kV)
T3	6.25/8.25/10.3 ²	46/25- <u>12.5</u>
T4	6.25/8.25/10.3 ³	46/25- <u>12.5</u>
T5	3/4	46/ <u>12.5</u>
T2 (proposed)	10/13.3/16.7	46kV/ <u>12.5</u> -4.16 kV
Total Capacity	24.6	
Total Capacity (excluding T5)	20.6	
Proposed Total Capacity	37.3	

3.2 Forecasted Load Growth

A key input to the planning process is the Operating Load Forecast (forecast). The forecast allows Hydro to predict the timing of criteria violations, so that potential issues can be addressed before they occur. Hydro prepares a forecast of the anticipated loads on all Hydro's distribution systems, including Wabush, on an annual basis. The forecast projects the peak demands for each system for a six year period. The peak demand forecast is used to determine the required amount of capacity that a distribution system or equipment within the system must have in order to meet that demand. The forecast includes new

² Winter Ratings (At 0°C)

³ Winter Ratings (At 0°C)

1 customers from both the Domestic Service (new homes) and General Service (new
2 businesses, and institutional facilities) customer areas. A winter season spreads over two
3 separate calendar years and therefore the winter peak of a system could occur in one of
4 those two years. For a winter peaking system like Wabush, the 2014 peak includes the
5 winter of 2014/2015 which ranges between December 2014 and March 2015. Therefore, to
6 meet the 2014 peak, it is necessary that work be completed by November 2014.

7
8 In recent years the Town of Wabush has experienced rapid residential and commercial load
9 growth. Subsequently, there has been additional focus placed on this system to ensure its
10 continued reliability. To illustrate the effects of the rapid load growth in Wabush, the 2012,
11 2013 and 2014 Operating Load Forecasts for Wabush are presented in Table 2.

12
13 The 2014 Operating Load Forecast in Table 2 is understated, because since the development
14 of this forecast, Hydro received a service request from a company called Malthus Canada
15 that specializes in the development of construction camps. Malthus plans on building
16 bunkhouses and kitchen facilities just south of the Wabush Terminal Station to provide
17 accommodations for workers/contractors employed by Alderon for the Kami Iron Ore
18 Project. This facility should be in full operation by the spring of 2015 and will tie into the
19 Wabush 12.5 kV distribution system. The connected capacity of this service will be about
20 6 MW and have an expected demand of approximately 3.5 MW. After the completion of
21 the Kami Iron Ore project, this facility will remain connected to the Wabush System.

22
23 The installation of QZT-T2 from the old Quartzite Substation will compensate for any
24 transformation capacity deficits in the short term. However, the work proposed under this
25 project may consist of temporary measures and the station may require future
26 improvements to properly address transformation and reliability issues that result from
27 future load growth. These concerns will be addressed in a future capital budget
28 application(s). The timing and necessity of a future project proposal will primarily depend
29 on future load growth and the condition of equipment in Wabush. In any future plan, QZT-

1 T2 will be utilized to provide transformation for the Wabush Distribution System.

2

3

Table 2: 2012, 2013 and 2014 Operating Load Forecasts

Year	2012 Forecast (Peak - MW)	2013 Forecast (Peak MW)	2014 Forecast⁴ (Peak MW)
2013	19.1	20.5	-
2014	19.5	21.4	21.7
2015	19.8	21.8	22.2
2016	20.0	22.1	22.7
2017	20.2	22.4	23.2
2018	20.4	22.5	23.6
2019	20.6	22.6	23.9

⁴ Does not include the demand contributions expected from the Malthus facility (3.5 MW)

3.3 Development of Alternatives

A number of alternatives were considered to alleviate this issue.

(1) The status quo at Wabush substation is not a viable option.

(2) Rehabilitating T5 was deemed to be not a viable option. In the spring of 2014, there was an attempt to put T5 back into service because of the increase in the load forecast. In preparation, the transformer oil was tested and was found to have unacceptable moisture levels, which also correlates with moisture in the transformer's insulation. Rehabilitating T5 would seem to be the preferred alternative. However, the extent of the work that needs to be carried out, the time it would take, how much it would cost, and whether T5 is in fact repairable has not yet been determined. In its current condition, T5 cannot be put in service, and the existing transformers will be overloaded at times of peak demand and thus, without the installation of additional transformer capacity, the Wabush Substation will have insufficient transformation capacity during the winter of 2014/15. There is also the question to whether or not T5 can provide the additional capacity to support the demand of the Wabush system beyond 2015. The new Malthus bunkhouses are expected to be in full operation by the spring of 2015 and have a total demand of approximately 3.5 MW⁵. At this time, the additional demand of the bunkhouse would increase total system demand beyond the transformation capacity, even with T5 in-service. Since a solution is required for this winter, it was deemed prudent to have an alternative in place (3 - move T2 from Quartzite).

(3) As described in Section 2, moving the existing T2 transformer from Quartzite and installing it at the Wabush substation is another viable alternative. A cost estimate has been developed accordingly.

(4) The procurement of a new transformer is possible but would be costly and require between one and two years to source and install, so it is not considered a viable alternative

⁵ The expected demand was provided by Malthus

1 for the 2014/2015 winter peak.

2

3 (5) Mobile diesel generation was considered, but based on the cost of the black start diesel
4 installation at Holyrood this winter plus operating and fuel costs, space considerations and
5 environmental concerns, was screened out as a viable alternative.

6

7 (6) Conservation and Demand Management (CDM) initiatives would not be a viable
8 alternative, in the time available prior to the next winter peak period.

4 CONCLUSION

This project is justified based on a violation of Hydro's planning criteria. The criterion states that all substations must have sufficient transformation capacity to meet forecast load.

Once the new Malthus facility is in full operation, the total system demand of Wabush will exceed the total transformation capacity of the Wabush Substation, regardless if T5 is in-service or not.

Therefore it is proposed that the 16 MVA transformer currently located at the old Quartzite Substation be relocated to the Wabush Substation.

The consequences of not executing this proposed project by the winter of 2014/2015 would be to increase the probability of rotating customer outages in Wabush during peak customer demand conditions due to a transformer failure. These peak conditions typically occur during severe weather conditions when the supply of power is the most crucial. Depending on the severity of the outages, the Town of Wabush might have to declare a state of emergency. As the existing transformers continue to age, the probability of this undesirable event increases.

4.1 Budget Estimate

The total estimated cost is \$958,800. The budget estimate for the total project is shown in Table 3.

1

Table 3: Project Budget Estimate

Project Cost:(\$ x1,000)	<u>2014</u>	<u>2015</u>	<u>Beyond</u>	<u>Total</u>
Material Supply	145.4	0.0	0.0	145.4
Labour	183.6	0.0	0.0	183.6
Consultant	55.1	0.0	0.0	55.1
Contract Work	352.0	0.0	0.0	352.0
Other Direct Costs	55.2	0.0	0.0	55.2
Interest and Escalation	9.2	0.0	0.0	9.2
Contingency	158.3	0.0	0.0	158.3
TOTAL	958.8	0.0	0.0	958.8

2

3 **4.2 Project Schedule**

4

5 The anticipated schedule for this project is shown in Table 4.

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7

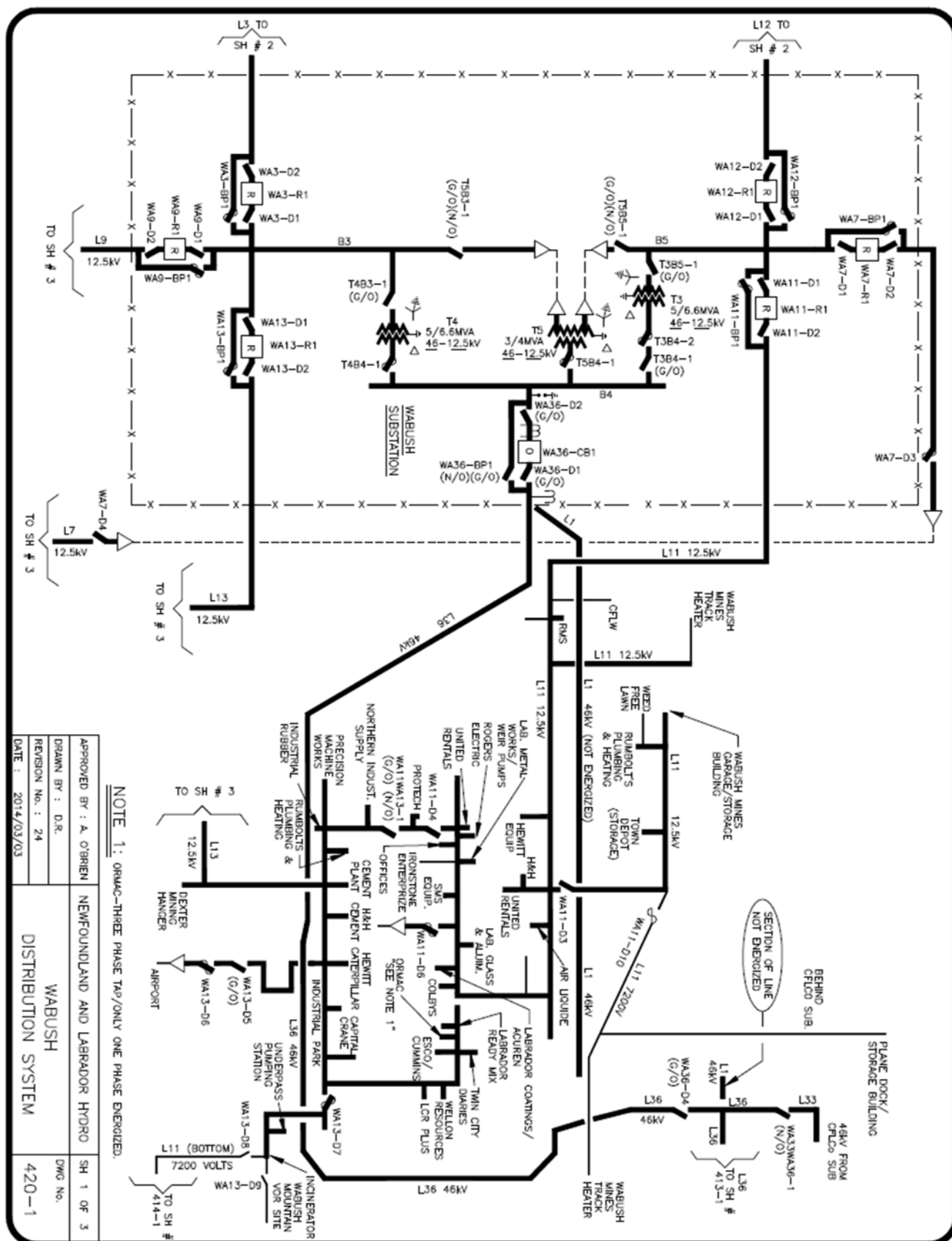
Table 4: Proposed Work Schedule for 2014

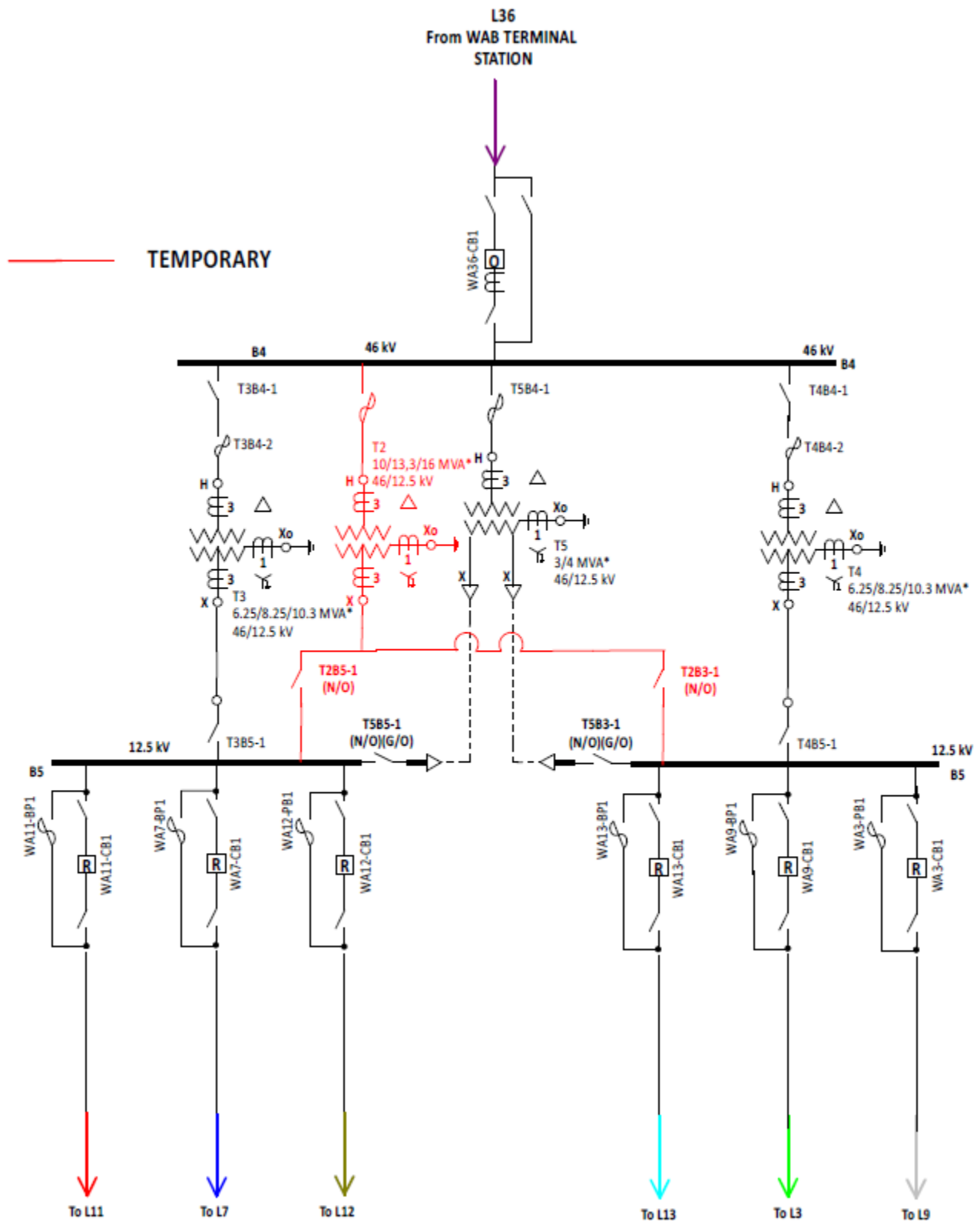
Activity		Start Date	End Date
Planning	Open project and develop design transmittal	June 2014	June 2014
Design	Finalize temporary substation layout and design	June 2014	June 2014
Procurement	Order equipment and materials	June 2014	July 2014
Construction	Construct new structures and bus work, move and refurbish transformer, terminate	Aug 2014	Sept 2014
Commissioning	Commission transformer	Sept 2014	Sept 2014
Closeout	Project Closeout	Oct 2014	Nov 2014

APPENDIX A

Single Line Diagrams – Wabush Substation

Existing and Proposed





Note 1: Switches T2B5-1 and T2B3-1 must not be closed at the same time

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

AN ORDER OF THE BOARD

NO. P.U. __ (2014)

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 the installation of additional transformation at the Wabush Substation.

WHEREAS Newfoundland and Labrador Hydro (“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 *EPCA*; and

WHEREAS Subsection 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 in Order No. P.U. 42(2013) the Board approved Hydro's 2014 Capital Budget; and

WHEREAS on June 19, 2014 Hydro applied to the Board for approval to install additional transformer capacity at the Wabush Substation by relocating transformer QTZ-T2 from the Quartzite Substation to the Wabush Substation along with modifications to the Wabush Substation, including a new concrete base foundation for the transformer, and modifications to the high voltage bus work and protection and control systems to accommodate QTZ-T2; and

WHEREAS the Board is satisfied that the 2014 supplemental capital expenditure for the relocation and installation of QTZ-Q2 transformer to the Wabush Substation and substation modifications (including a new concrete base foundation for the transformer and modifications to the high voltage bus work and protection and control systems at the Wabush Substation) are necessary to allow Hydro to provide service and facilities which are reasonably safe and adequate and just and reasonable.

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IT IS THEREFORE ORDERED THAT:

1. The proposed capital expenditure of \$958,800 for the relocation and installation of transformer QTZ-T2 at the Wabush Substation along with modifications to the Wabush Substation, including a new concrete base foundation for the transformer and modifications to the high voltage bus work and protection and control systems, is approved.
2. Hydro shall pay all expenses of the Board arising from this Application.

DATED at St. John’s, Newfoundland and Labrador, this day of , .
