

December 4, 2019

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: Application for Approval of the Construction of a Line Extension to a Customer Site and the Installation of Power Usage Monitoring and Control Equipment on the Customer Site

Please find enclosed one original and eight copies of Newfoundland and Labrador Hydro's ("Hydro") application for approval of the construction of a line extension to a customer site and the installation of power usage monitoring and control equipment on the customer site ("Application").

Hydro entered into a Temporary Service Agreement with 77849 Newfoundland and Labrador Inc., carrying on business as BlockLab ("BlockLab"), to provide 7.75 MW of available capacity on a temporary, interruptible basis. The Temporary Service Agreement, which has a maximum period of three years, was approved by the Board of Commissioners of Public Utilities ("Board") on August 10, 2018, in Board Order No. P.U. 27(2018). BlockLab has subsequently effected a change of name to Blockchain Labrador Corporation, but continues to carry on business as Blocklab.

The project proposed in the attached Application is necessary to interconnect the BlockLab data centre located in Wabush, Labrador. Power will be supplied to the BlockLab site by constructing a line tap and associated metering and disconnect switch on the 46 kV line L36 originating at the Wabush Terminal Station. In addition, Hydro will install a Remote Terminal Unit on the BlockLab site to communicate and enforce maximum allowable power usage, as well as monitor site power usage.

In the Temporary Service Agreement, BlockLab agreed to pay Hydro a Temporary Connection Fee as determined in accordance with Regulation 9(b) of Hydro's Rates, Rules and Regulations. The capital costs of this project will be recovered from BlockLab, less the value of salvageable components. BlockLab would like to proceed at the earliest opportunity. Hydro therefore requests that the Board consider this matter on an expedited basis.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



Shirley A. Walsh
Senior Legal Counsel, Regulatory
SAW/las

Ms. C. Blundon
Public Utilities Board

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Encl.

cc: **Newfoundland Power**
Mr. Gerard M. Hayes

Consumer Advocate
Mr. Dennis M. Browne, Q.C, Browne Fitzgerald Morgan & Avis

Industrial Customer Group
Mr. Paul L. Coxworthy, Stewart McKelvey
Mr. Denis J. Fleming, Cox & Palmer
Mr. Dean A. Porter, Poole Althouse

ecc: **Board of Commissioners of Public Utilities**
Ms. Jacqui Glynn
PUB Official Email

Newfoundland Power
Ms. Kelly C. Hopkins
Regulatory Email

Consumer Advocate
Mr. Stephen F. Fitzgerald, Browne Fitzgerald Morgan & Avis
Ms. Sarah G. Fitzgerald, Browne Fitzgerald Morgan & Avis
Ms. Bernice Bailey, Browne Fitzgerald Morgan & Avis

Iron Ore Company of Canada
Mr. Gregory A.C. Moores, Stewart McKelvey

Labrador Interconnected Group
Mr. Senwung Luk, Olthuis Kleer Townshend LLP
Ms. Julia Brown, Olthuis Kleer Townshend LLP



Application for Approval of the Construction of a Line Extension to a Customer Site and the Installation of Power Usage Monitoring and Control Equipment on the Customer Site

December 4, 2019



An Application to the Board of Commissioners of Public Utilities

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

IN THE MATTER OF an Application by Newfoundland and Labrador Hydro (*"Hydro"*) for approval, pursuant to Subsection 41(3) of the Act, of construction of a line extension to a customer site and the installation of power usage monitoring and control equipment on the customer site.

To: The Board of Commissioners of Public Utilities (*"Board"*)

THE APPLICATION OF NEWFOUNDLAND AND LABRADOR HYDRO STATES THAT:

A. Background

1. Hydro, 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*.
2. Under section 54 of the Act, Hydro has an obligation to provide electrical service.
3. Hydro entered into a Temporary Service Agreement with 77849 Newfoundland and Labrador Inc. carrying on business as BlockLab (*"BlockLab"*) to provide 7.75 MW of available capacity on a temporary, interruptible basis. The Temporary Service Agreement was approved by the Board on August 10, 2018, in Board Order No. P.U. 27(2018).
4. As detailed in the Temporary Service Agreement, BlockLab agreed to pay Hydro a Temporary Connection Fee as determined in accordance with Regulation 9(b) of Hydro's Schedule of Rates, Rules and Regulations (*"Regulation 9(b)"*).

5. To provide the service contemplated in the Temporary Service Agreement, it is necessary to construct a line extension to the BlockLab site, as well as install power usage monitoring and control equipment at the BlockLab site. The specific work and the proposed time frame for that work is detailed in the Supplemental Capital Budget Engineering Report, attached to this application as Schedule 1.

6. Under Regulation 9(b):


“Where a Customer requires Service for a period of less than three (3) years, the Customer shall pay Hydro a "Temporary Connection Fee". The Temporary Connection Fee is calculated as the estimated labour cost of installing and removing lines and equipment necessary for the Service plus the estimated cost of non-salvageable material.”

7. The estimated capital cost of this project is \$244,000. The salvageable components contained within that capital cost is valued at \$51,450. The capital costs of this project will be recovered from BlockLab, less the value of salvageable components.

8. Hydro hereby requests that the Board make an Order pursuant to section 41(3) of the *Act* approving the capital expenditure of approximately \$244,000 for the construction of a line extension and installation of power usage monitoring and control equipment to and at the BlockLab site, respectively, as more particularly described in this Application and in the Supplemental Capital Budget Engineering Report attached as Schedule 1. Approval of Hydro’s Application will enable Hydro to meet its obligation to provide service to BlockLab.

DATED at St. John’s in the Province of Newfoundland and Labrador this 4 day of December, 2019.

NEWFOUNDLAND AND LABRADOR HYDRO



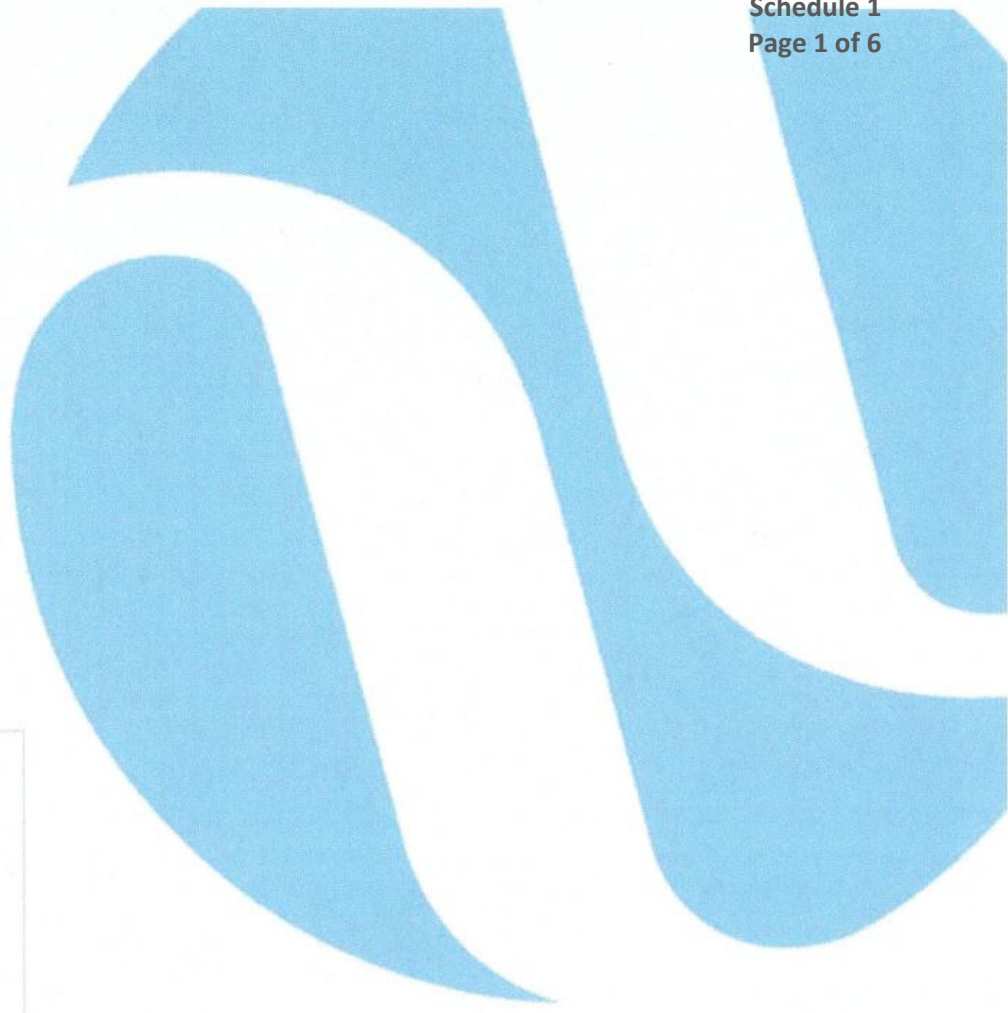
Shirley A. Walsh
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Newfoundland and Labrador Hydro,
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St. John's, Newfoundland, A1B 4K7
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Schedule 1

BlockLab Data Center Interconnection



BlockLab Data Centre Interconnection

December 3, 2019

A report to the Board of Commissioners of Public Utilities



1 **Executive Summary**

2 77849 Newfoundland and Labrador Inc., carrying on business as BlockLab (“BlockLab”), applied to
3 Newfoundland and Labrador Hydro (“Hydro”) in 2018 for electrical service to operate a blockchain
4 technology data centre in Wabush, Labrador. Due to capacity limits within the Labrador West system,
5 Hydro offered a temporary, curtailable service to BlockLab. The Temporary Service Agreement was
6 approved by the Board of Commissioners for Public Utilities (“Board”) in Board Order No. P.U. 27(2018).
7 This project is proposed to provide the temporary service through construction of a line extension to the
8 BlockLab site and installation of power usage monitoring and control equipment on the BlockLab site.

9
10 BlockLab has subsequently effected a change of name to Blockchain Labrador Corporation, but
11 continues to carry on business as BlockLab.

12
13 The capital project estimate is \$244,400 and is scheduled to be completed in April 2020. As per
14 Regulation 9(b) of the Schedule of Rates, Rules and Regulations, BlockLab will pay Hydro a “Temporary
15 Connection Fee” which includes the estimated labour cost of installation of the lines and equipment
16 necessary for the service, as well as the estimated costs of non-salvageable material. This will allow
17 Hydro to recover the capital costs from BlockLab, less the value of salvageable components.

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1.0 Introduction

Hydro entered into a Temporary Service Agreement with BlockLab on June 5, 2018 to deliver an amount of temporary power up to a maximum demand of 7.75 MW; BlockLab is now ready to connect to the system. Within this agreement, BlockLab, “agrees to reduce its demand requirements within 30 minutes at the request of Hydro to ensure that its temporary load requirements do not impede Hydro’s ability to supply the contracted Power on Order with the Labrador Industrial customers with which Hydro already has contracts.” The Temporary Service Agreement is for a maximum period of three years.

Power will be supplied to the BlockLab site by constructing a line tap and associated metering and disconnect switch on the 46 kV line L36 originating at the Wabush Terminal Station. In addition, Hydro will install a Remote Terminal Unit (“RTU”) on the BlockLab site to communicate and enforce maximum allowable power usage, as well as monitor site power usage.

2.0 Background

BlockLab originally requested 20 MW of capacity for its data centre. Hydro indicated to BlockLab that there is inadequate transmission capacity available on the 230 kV transmission lines serving Labrador West to provide 20 MW of firm capacity. Hydro determined that there is a 7.75 MW capacity limit on the 46 kV transmission line that could be utilized; however, Hydro has committed this firm capacity to supply the Wabush Mine, which is operated by Tacora Resources. BlockLab subsequently requested temporary service to avail of the 7.75 MW of available capacity on a temporary basis. On June 8, 2018, Hydro submitted an application to the Board to approve a Temporary Service Agreement with BlockLab on the condition that the maximum available capacity would be 7.75 MW for a period of up to three years, interruptible within 30 minutes of Hydro’s request. On August 10, 2018, the Board issued Board Order No. P.U. 27(2018) approving the proposed Temporary Service Agreement.

3.0 Project Description

The scope of this project includes:

- Supply and install a line tap, including metering, on Line 36 from Wabush Terminal Station;
- Supply and install a gang operated disconnect switch outside the BlockLab site;
- Supply and install a RTU on the BlockLab site; and

- Provide oversight for initial energization of the BlockLab site.

The project estimated cost is presented in Table 1.

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As per Regulation 9(b) of the Schedule of Rates, Rules and Regulations, and as agreed upon in the Temporary Service Agreement approved by the Board, BlockLab will pay for the “. . . estimated labour cost of installing and removing lines and equipment necessary for the Service plus the estimated cost of non-salvageable material.” The capital costs of this project are provided in Table 1. The estimated cost to be recovered from BlockLab is \$192,550, while the value of the salvageable components is estimated at \$51,450.

Table 1: Project Estimate (\$000)

Project Cost	2020	2021	Beyond	Total
Material Supply	111.4	0.0	0.0	111.4
Labour	86.6	0.0	0.0	86.6
Consultant	0.0	0.0	0.0	0.0
Contract Work	11.0	0.0	0.0	11.0
Other Direct Costs	11.8	0.0	0.0	11.8
Interest and Escalation	12.6	0.0	0.0	12.6
Contingency	11.0	0.0	0.0	11.0
TOTAL	244.4	0.0	0.0	244.4

The project schedule is presented in Table 2.

Table 2: Project Schedule

Activity	Start Date	End Date
Planning: Prepare Project Scope Statement, hold Project Kick-off meeting	January 2020	January 2020
Design: Complete detailed design for RTU installation	January 2020	February 2020
Procurement: Procure RTU and associated communications infrastructure	January 2020	February 2020
Construction: Install line tap and RTU	January 2020	March 2020
Commissioning: Test, commission, and put new RTU in service	March 2020	March 2020
Closeout: Complete as-built drawings, financial closeout	April 2020	April 2020

39 **4.0 Conclusion**

40 BlockLab signed a Temporary Service Agreement with Hydro on June 5, 2018, approved by the Board on
41 August 10, 2018, wherein Hydro will supply up to 7.75 MW of interruptible capacity for a period of up to
42 three years. To provide this service, Hydro must tap and extend its 46 kV transmission line to the
43 BlockLab site, as well as install remote monitoring and control equipment on the BlockLab site.

44
45 Hydro is recommending approval of this project to act upon BlockLab's request. The capital costs of this
46 project will be recovered from BlockLab, less the value of salvageable components.



Affidavit

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

IN THE MATTER OF an Application by Newfoundland and Labrador Hydro ("Hydro") for approval, pursuant to Subsection 41(3) of the Act, of construction of a line extension to a customer site and the installation of power usage monitoring and control equipment on the customer site.

AFFIDAVIT


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

1. I am the Vice President, Operations and NLSO, with 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 3 day of Dec 2019,)
before me:)



Barrister, Newfoundland and Labrador



Ron LeBlanc