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December 19, 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 and Installation of 14 Level 3 Direct Current Fast Chargers and 14 Level 2 Chargers**

Please find enclosed one original and eight copies of Newfoundland and Labrador Hydro's ("Hydro") Application for Approval of the Construction and Installation of 14 Level 3 Direct Current Fast Chargers ("DCFC") and 14 Level 2 Chargers ("Application") in Newfoundland.

Newfoundland and Labrador currently does not have a high-speed DCFC Electric Vehicle ("EV") charging network. The province is the only jurisdiction in Canada without one. There are currently approximately 185 registered EVs in Newfoundland and Labrador. Purchasing an EV in a province that does not have a fast charging network, where it cannot be conveniently and quickly recharged for travel across the province, is a major barrier to expansion of the EV market in Newfoundland and Labrador.

In its Application, Hydro proposes to build the province's first EV fast charging network through the construction and installation of both DCFC and Level 2 chargers in 14 locations across the island of Newfoundland between St. John's and Port Aux Basques ("Project"). Hydro has secured Government funding for approximately \$1.8 million of the \$2.1 million cost of the Project. Hydro will contribute the remaining funds necessary for the Project.

The capital funds Hydro expends on this Project will not be included in its regulated rate base or recovered from customers. Hydro will file a further application in the first quarter of 2020 regarding the consideration Hydro intends to recover from EV owners for the charging services Hydro will provide.

Should you have any questions, please contact the undersigned.

Yours truly,

**NEWFOUNDLAND AND LABRADOR HYDRO**

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

Encl.

Ms. C. Blundon  
Public Utilities Board

2

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



# **Application for Approval of the Construction and Installation of 14 Level 3 Direct Current Fast Chargers and 14 Level 2 Chargers**



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

**IN THE MATTER OF** an Application by Newfoundland and Labrador Hydro (“*Hydro*”) for an Order approving the construction and installation of 14 Level 3 Direct Current Fast Chargers and 14 Level 2 chargers pursuant to Section 41 (3) of the *Act*.

**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. There are currently approximately 185 registered Electric Vehicles (“EV”) in Newfoundland and Labrador.
3. Newfoundland and Labrador is the only province in Canada currently without a high speed Level 3 Direct Current Fast Charge (“DCFC”) EV charging network.
4. The lack of a provincial fast charging network is a barrier to market development for EV in the province. Purchasing an EV that cannot be conveniently and quickly recharged for travel across the province is a major barrier for consumers in Newfoundland and Labrador.

**B. Application**

5. Hydro proposes to build the province’s first EV fast charging network through the construction and installation of both a DCFC and Level 2 charger in 14 locations across the island of Newfoundland between St. John’s and Port Aux Basques (“*Project*”).
6. At each site, which will be approximately 10 metres x 10 metres in size and include two parking stalls, Hydro will mount the equipment on concrete foundations. The equipment will include a

50 kilowatt (minimum) DCFC and a Level 2 (7 kilowatt) charger, along with a power supply cabinet. Power will be provided by underground electrical service.

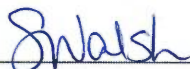
7. The completion of the proposed Project charging network will bring the first DCFC network to the province, promote EV based tourism, and allow for increased domestic ownership of EVs which will reduce greenhouse gas emissions and promote electrification in the province.
8. The estimated capital cost of this project is \$2,059,400. Hydro has secured third-party funding for the majority of the costs associated with this Project. Approximately \$1.8 million of the project costs will be provided by Government funding. Hydro will contribute the remaining funds necessary for the Project; however, the capital funds Hydro expends on this Project will not be included in its regulated rate base or recovered from customers.
9. Further details on the Project, including the specific work and the proposed time frame for that work, are detailed in the Supplemental Capital Budget Engineering Report attached to this Application as Schedule 1.

**C. Newfoundland and Labrador Hydro's Request**

10. Hydro hereby requests that the Board make an Order pursuant to section 41(3) of the *Act* approving the Project and Hydro's capital expenditure of approximately \$2,059,400 as more particularly described in this Application and in the Supplemental Capital Budget Engineering Report attached as Schedule 1.

DATED at St. John's in the Province of Newfoundland and Labrador this 19 day of Dec 2019.

**NEWFOUNDLAND AND LABRADOR HYDRO**



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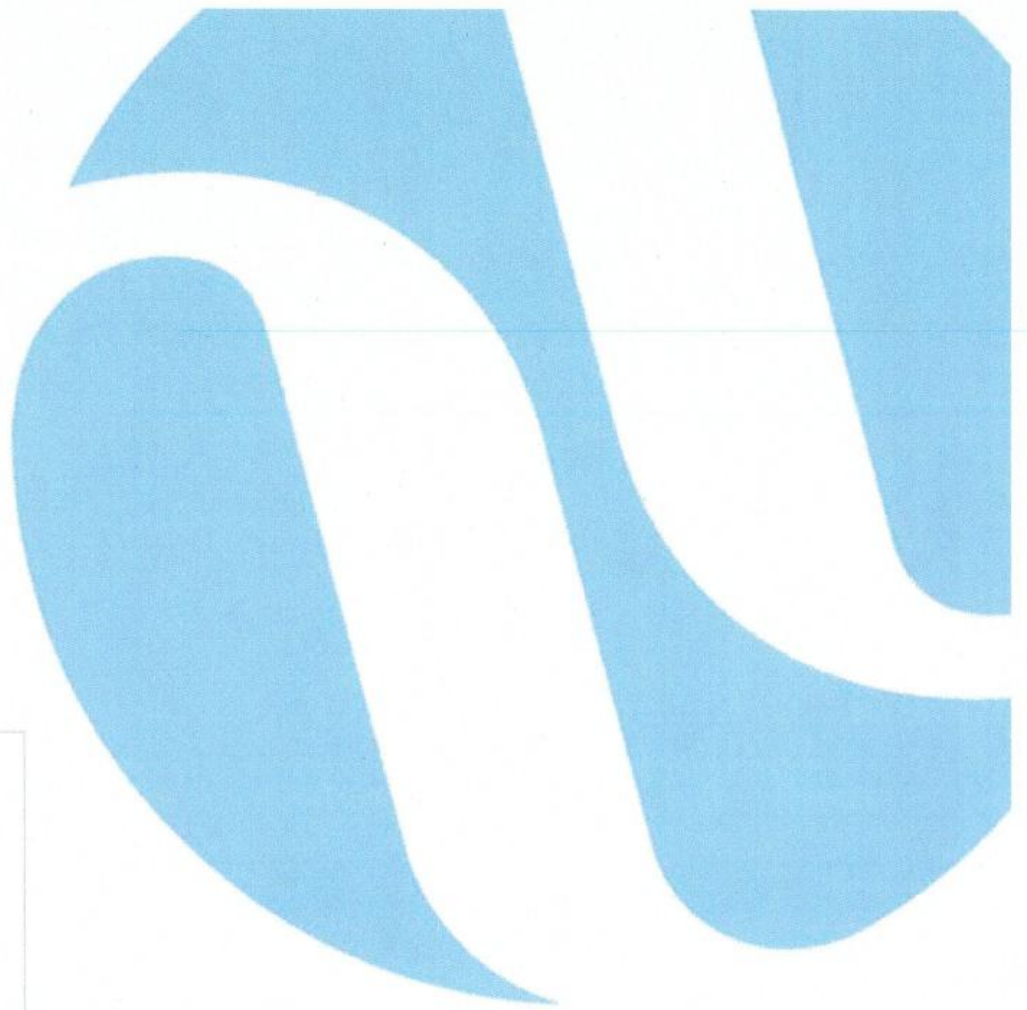
Shirley A. Walsh  
Counsel for the Applicant  
Newfoundland and Labrador Hydro,  
500 Columbus Drive, P.O. Box 12400  
St. John's, Newfoundland, A1B 4K7  
Telephone: (709) 685-4973  
Facsimile: (709) 737-1782



**Schedule 1**  
**Supplemental Capital Budget Application**  
**Electric Vehicle Fast Charging Network**







## Supplemental Capital Budget Application Electric Vehicle Fast Charging Network

December 19, 2019

A report to the Board of Commissioners of Public Utilities



1 **Executive Summary**

2 Newfoundland and Labrador Hydro (“Hydro”) is proposing to build the province’s first Electric Vehicle  
3 (“EV”) fast charging network.

4 The network will consist of 14 sites from St. John’s to Port Aux Basques, with an average distance of 65  
5 km between chargers. Each site will include both a Level 3 Direct Current Fast Charger (“DCFC”) with a  
6 minimum output of 50 kilowatts (“kW”) and a Level 2 (7 kW) charger. Final locations will be selected  
7 based on a public request for proposals.

8 The estimated project cost is approximately \$2,059,400 with planned completion by December 2020.

9 Hydro intends to complete the project with non-regulated funds, and with no impact to customer rates.

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## 1 1.0 Introduction

2 Newfoundland and Labrador is the only province in Canada currently without a DCFC network. The  
3 following figure shows DCFC (orange) and Level 2 (green) locations in Newfoundland and Labrador and  
4 the rest of Atlantic Canada.

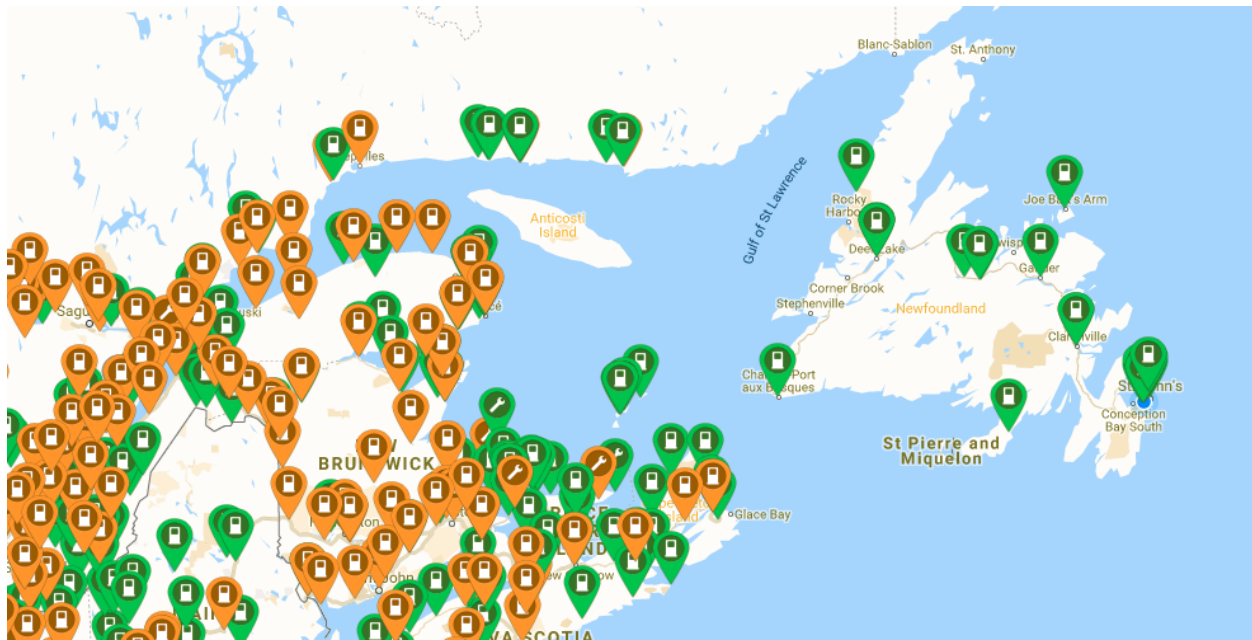


Figure 1: Locations of Existing DCFC (Orange) and Level 2 (Green) Chargers in Atlantic Canada

5 Hydro is proposing to establish an EV fast charging network to promote EV ownership and usage in the  
6 province.

## 7 2.0 Background

8 There are currently 185 registered EVs in Newfoundland and Labrador. Based on information from other  
9 jurisdictions in Canada, the lack of a provincial fast charging network is a key barrier to market  
10 development for EVs in the province. While the majority of EV charging typically takes place at the  
11 owners home (>90%), purchasing a vehicle that cannot be conveniently and quickly recharged for travel  
12 across the province is a major barrier to consumers in Newfoundland and Labrador.

## 13 3.0 Analysis

14 In preparing to undertake this project, Hydro researched best practices in other jurisdictions and worked  
15 with government agencies to determine the appropriate scope for this project.

1 The completion of the proposed charging network will bring the first DCFC network to the province,  
2 promote EV based tourism, and allow for increased domestic ownership of EVs which will reduce  
3 greenhouse gas emissions and promote electrification in the province.

## 4 4.0 Project Description

5 Hydro is planning to build the province's first EV fast charging network as illustrated in Figure 2.

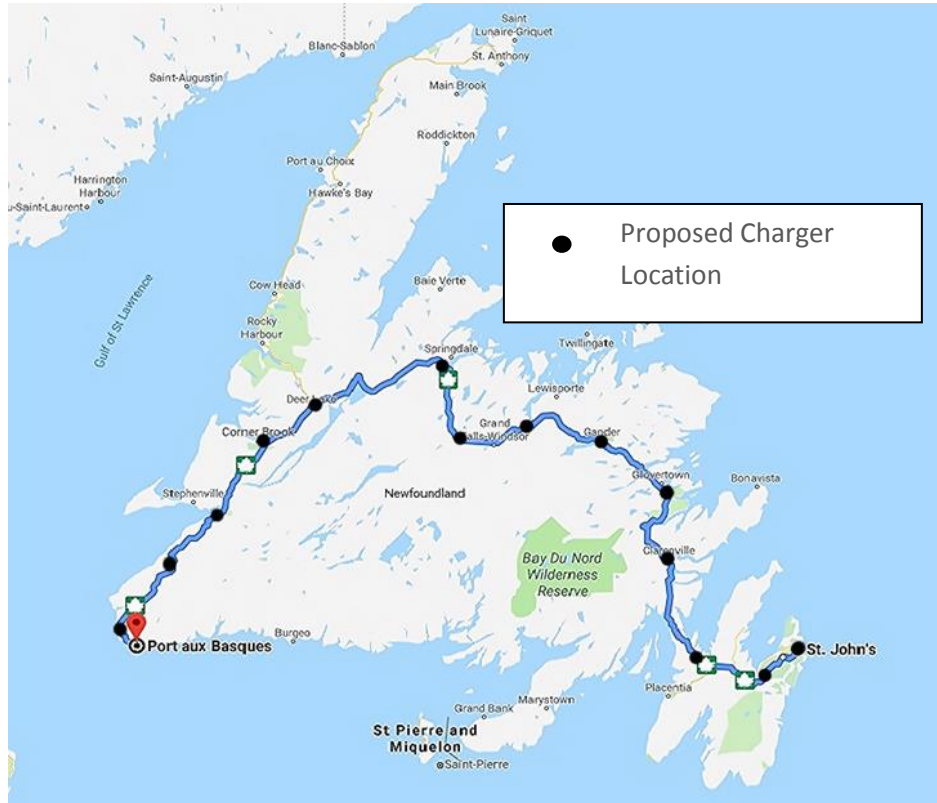


Figure 2: Approximate Proposed Locations of Level 2 and DCFC Chargers

6 The network will consist of 14 sites from St. John's to Port Aux Basques, with an average distance of 65  
7 km between chargers. General site locations have been identified based on the following criteria:

- 8 • An average distance of 65 km between chargers on major highways;
- 9 • Access to three phase commercial power with at least 350 kW of available capacity; and
- 10 • Amenities for travellers (e.g., restaurants, malls, etc.)

11 The final locations at each site will be selected based on a public request for proposals.

- 1 Each site will include both a 50 kW (minimum) DCFC and a Level 2 (7 kW) charger. A typical site layout
- 2 from an existing charging station is shown in Figure 3.



**Figure 3: Typical EV Charging Location.**

- 3 The site will be approximately 10 metres x 10 metres in size and will be sufficient to locate the two
- 4 chargers, a power supply cabinet, and two parking stalls. All equipment will be mounted on concrete
- 5 foundations (as shown in Figure 3) and power will be provided by underground electrical service. Upon
- 6 completion, Hydro will maintain and operate the charging network.

#### 7 **4.1 Project Estimate**

- 8 The project estimate is shown in Table 1.

**Table 1: Project Estimate (\$000)**

<b>Project Cost</b>	<b>2020</b>	<b>Beyond</b>	<b>Total</b>
Material Supply	1,271.4	0.0	<b>1,271.4</b>
Labour	43.9	0.0	<b>43.9</b>
Consultant	0.0	0.0	<b>0.0</b>
Contract Work	548.0	0.0	<b>548.0</b>
Other Direct Costs	15.0	0.0	<b>15.0</b>
Interest and Escalation	0.0	0.0	<b>0.0</b>
Contingency	181.1	0.0	<b>181.1</b>
<b>Total</b>	<b>2,059.4</b>	<b>0.0</b>	<b>2,059.4</b>

1 **4.2 Project Schedule**

2 The anticipated project schedule is shown in Table 2.

**Table 2: Project Schedule**

<b>Milestone</b>	<b>Completion Date</b>
Project Initiation	January 2020
Final Sites Selected and Land Leases Secured	January 2020
Procurement Process – Chargers and Cabinets	January – February 2020
Request Electrical Service (from Utility)	January – July 2020
Detailed Electrical/Civil Design	January – March 2020
Tender for Electrical/Civil Work (Includes Installation of Chargers)	May 2020
Delivery of Chargers and Electrical Cabinets	June 2020
Construction of EV Charging Stations	July – September 2020
Final Hook-up and Commissioning	September – November 2020
Project Close-out	December 2020

3 **5.0 Conclusion**

4 Newfoundland and Labrador is the only province in Canada currently without a fast charging network for  
5 EVs. This project will provide a network of 14 fast charging stations across the island, located along the  
6 Trans-Canada Highway. Once established, Hydro will maintain and operate the charging network. Hydro  
7 intends to complete the project using non-regulated funds, having secured \$1.8 million from  
8 Government for the project.







# Affidavit



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

**IN THE MATTER OF** an Application by Newfoundland and Labrador Hydro ("*Hydro*") for an Order approving the construction and installation of 14 Level 3 Direct Current Fast Chargers and 14 Level 2 chargers pursuant to Section 41 (3) of the *Act*.

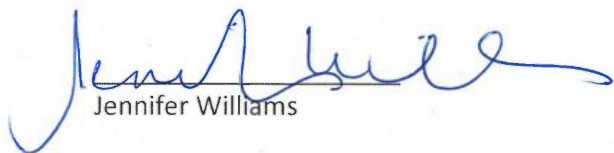
**AFFIDAVIT**

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

1. I am the 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 19<sup>th</sup> day of )  
December 2019, before me: )

  
\_\_\_\_\_  
Barrister, Newfoundland and Labrador

  
\_\_\_\_\_  
Jennifer Williams