



May 3, 2018

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| BCUC REGULATION OF ELECTRIC VEHICLE CHARGING SERVICE INQUIRY EXHIBIT A-19 |
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Mr. Ryan Angel
BC Regional Sales Manager
Autochargers.ca
Vancouver
ryan@autochargers.ca

Re: British Columbia Utilities Commission – An Inquiry into the Regulation of Electric Vehicle Charging Service – Project Number 1598941 – Information Request No. 1

Dear Mr. Angel:

Further to your March 16, 2018 filing of written evidence with respect to the above-noted Inquiry, enclosed please find British Columbia Utilities Commission (BCUC) Information Request No. 1. In accordance with the regulatory timetable, please file your responses on or before Wednesday, June 6, 2018.

The BCUC's Rules of Practice and Procedure (Rules) set out in Order G-1-16 provide guidance and establish requirements for participants in BCUC proceedings. Subject to section 14 of the Rules, all parties that receive an information request must provide full and adequate response to each question.

The BCUC's Rules of Practice and Procedure can be viewed here:
<https://www.ordersdecisions.bcuc.com/bcuc/orders/en/127520/1/document.do>

If you have any questions regarding the information request process, please contact Commission Secretary.

Sincerely,

Original signed by:

Patrick Wruck
Commission Secretary

/dg
Enclosure



**British Columbia Utilities Commission
An Inquiry into the Regulation of Electric Vehicle Charging Service**

INFORMATION REQUEST NO. 1 TO AUTOCHARGERS.CA

A. INVESTMENT DECISION

**1.0 Reference: Exhibit C20-2, p. 2
Multi-Unit Residential Buildings (MURBs) & Curbside Parking**

On page 2 of Exhibit C20-2, AddÉnergie Technologies Inc. states:

Direct current fast charger (DCFC) and multi-unit residential building (MURB) home charging are unlikely to be widely and comprehensively deployed in British Columbia without public utility involvement because of the current economic barriers facing charging providers and still-emerging demand for EV charging in many parts of the province. Curbside public charging faces similar cost and also regulatory challenges that are likely to inhibit its widespread deployment.

- 1.1 What difficulties have Autochargers.ca observed regarding the installation and operation of charging infrastructure in MURBs and curbside charging? What products or services does Autochargers.ca offer for this market?
- 1.1 Please discuss which EV charging business model that is most suitable for MURBs (e.g. a public utility or third-party site host owned or operated).
- 1.2 Please discuss which EV charging business model that is most suitable for curbside public charging (e.g. a public utility or third-party site host owned or operated).

B. TECHNOLOGY

**2.0 Reference: Exhibit C17-2, p. 1
EV charger manufacturing and distribution**

On page 1 of Exhibit C17-2, Autochargers.ca (Autochargers) states:

Autochargers.ca was formed in 2013, 5 years on the market and is the largest EVSE reseller of smart EV chargers in Canada by volume. Autochargers.ca has offices in Toronto, Ottawa, Montreal and Vancouver. Autochargers.ca is an exclusive eMotorWekrs Canadian manufacturing and distribution partner, Autochargers.ca operates 16500 sq ft assembly facility in Markham, Ontario with yearly manufacturing output of up to 60,000 EV chargers.

- 2.1 Please discuss the types of EV chargers that Autochargers manufacture and assemble. What level/type are these EV chargers? Are they for residential or commercial use?
- 2.2 Please discuss the manufacturing, installation, operations, and maintenance requirements of public EV charging stations. For instance, are there any requirements established for which manufacturing, installations, operations, and maintenance of public EV charging stations must be handled by trained and certified electricians/engineers? Are there any permitting, inspections, or testing processes?

- 2.2.1 Please distinguish any differences between public EV charging stations and home EV chargers.

**3.0 Reference: Exhibit C17-2, p. 1
Networked vs. Non-networked EV stations**

On page 1 of Exhibit C17-2, Autochargers states:

Depending on their needs a networked vs a non-networked station is by far the best choice. Networked stations that are OCPP compliant are the most flexible choice for customers of EV charging stations. OCPP compliant stations are not locked into any particular network that the charger company provides. Our product Juicebox is an OCPP compliant device.

- 3.1 Please discuss the benefits, disadvantages, and differences between a networked EV charging station versus a non-networked EV charging station.
- 3.2 Is Autochargers aware of how many Open Charge Point Protocol (OCPP) compliant EV charging stations exist in BC? If yes, please provide the number and if known, please also provide what percent of the total EV charging stations in BC are OCPP compliant.

**4.0 Reference: Exhibit C3-2, p. 2
Open Charge Point Protocol**

On page 2 of Exhibit C3-2, Drive Energy states:

...the EVSE owner, who are also clients of vendors, are captive of a monopoly/oligopoly structure in which they are tied to the provider of the hardware (charging station) that they have purchased. As mentioned above, until the smart EVSEs operate on Open Charge Point Protocol [OCPP] like ABB, Easton or Tritium DCFCs, all level 2 hardware is tied to the same company to provide payment processing & service and are very vulnerable to uncompetitive monthly fees and payment processing fee hikes.

- 4.1 Please discuss Autocharger's view on the benefits and drawbacks of using OCPP.

C. RATES

**5.0 Reference: Exhibit C20-2, p. 7; Exhibit C1-2, p. 7
Measurement Canada**

On page 7 of Exhibit C20-2, AddÉnergie states "that as of March 6, 2018, Measurement Canada has not certified any commercially available DCFC device to bill on the basis of energy (kWh) or time-related demand (kW)."

On page 7 of Exhibit C1-2, British Columbia Hydro and Power Authority (BC Hydro) states:

The introduction of a new standard is expected to take some time, and in BC Hydro's view a Measurement Canada approved DC standard is several years away.

- 5.1 Has Autochargers.ca sought Measurement Canada certification for DCFC devices it manufactures or imports in order for owners or operators to charge an energy-based rate?

- 5.1.1 If so, please provide a status update on such processes.
- 5.1.2 If not, does Autochargers.ca have any plans to file a request in the future?
- 5.2 Please explain what difficulties exist in certifying DCFC billing devices for commercial use purposes. Is it unique to EV charging stations?
 - 5.2.1 Are AC Level 2 chargers certified by Measurement Canada to charge by energy?
- 5.3 With respect to a rate design that differentiates time-based charges to vary based on vehicle capacity, would such rate design be possible without Measurement Canada's certification on an approved DC standard?

D. STORAGE AND GRID STABILITY

**6.0 Reference: Exhibit C17-2, p. 1
Grid optimization**

On page 1 of Exhibit C17-2, Autochargers.ca states: "would like [to] make the Utility Commission aware that our smart grid software has been specifically designed to work with end users and Utilities in terms of how to manage rates, power distribution and electrical load management."

- 6.1 Please submit a summary of its smart grid software, including the benefits and costs of using such software.
 - 6.1.1 If possible, please provide examples of jurisdictions that have implemented Autocharge.ca's smart grid software.
 - 6.1.2 Please discuss whether Autochargers.ca is working with regulated public utilities in BC such as BC Hydro and FortisBC Inc. that involves using the smart grid software.