

William J. Andrews

Barrister & Solicitor

Member of the Law Society of British Columbia

70 Talbot Street, Guelph, ON, N1G 2E9

Phone: 604-313-0089, Email: william.j.andrews01@gmail.com

July 12, 2021

Mr. Fred James
Chief Regulatory Officer
Regulatory & Rates Group
British Columbia Hydro and Power Authority
16th Floor – 333 Dunsmuir Street
Vancouver, BC V6B 5R3
By Email: bhydroregulatorygroup@bhydro.com

Dear Sir:

Re: BC Hydro Public Electric Vehicle Fast Charging Rate Application
B.C. Sustainable Energy Association/Vancouver Electric Vehicle Association Questions
for BC Hydro to respond to at Streamlined Review Proceeding

Pursuant to the further regulatory timetable set out in BCUC Order G-176-21 [Exhibit A-7], attached please find BCSEA-VEVA's questions for BC Hydro's response at the Streamlined Review Proceeding scheduled to begin on July 27, 2021. A version in Word format will be provided separately. If you have any questions, please do not hesitate to contact me.

Yours truly,

William J. Andrews



Barrister & Solicitor

Encl.

cc. BCUC, interveners, by web filing

Questions to BC Hydro for response during Streamlined Review Process

REQUESTOR NAME: **BC Sustainable Energy Association and Vancouver Electric Vehicle Association**

TO: **BC Hydro**

DATE: **July 12, 2021**

PROJECT NO: **1599190**

APPLICATION NAME: **BC Hydro Public Electric Vehicle (EV) Fast Charging Rate Application**

1.0 Topic: Accessibility

Reference: Exhibit B-5, BC Hydro Response to BCSEA-VEVA IR 1.1 (pdf p.113, et seq.)

BC Hydro states it “is committed to incorporating accessibility into its public fast charging sites where possible and practical.” It says it “has demonstrated this commitment by working with VEVA to document guidelines for public fast charging stations.”

BC Hydro says that “providing accessibility to fast charging stations by persons with disabilities is extremely important and it is one of the key objectives BC Hydro tries to achieve when designing a new charging site.”

BC Hydro acknowledges that “Not all existing BC Hydro public fast charging sites are accessible based on our self-assessment.”

BC Hydro states that “New stations will be built with accessibility in mind and pursuant to these guidelines. Existing stations will be upgraded over time where possible and practical (generally when additional charging stations are added).”

1.1 Please address whether the cost of building accessibility into new stations and upgrading existing stations to improve accessibility pushes BC Hydro’s rates for public fast charging up, or down, or has no effect on the rates.

1.2 Will the accessibility of BC Hydro’s public fast charging stations and sites be addressed in the forthcoming Electrification Plan to be filed with BC Hydro’s F2023-F2025 Revenue Requirement Application in August 2021? In the proposed March 2024 Evaluation Report?

2.0 Topic: BC Hydro planning re public fast charging

Reference: Exhibit B-5, BC Hydro Response to BCSEA-VEVA IR 1.5. (pdf pp.206-207)

BC Hydro states:

“BC Hydro plans and builds its fast charging network of stations to support the adoption of electric vehicles. Fast charging stations on primary and major secondary highway corridors make travel between cities using an EV feasible. In urban and suburban areas fast charging stations serve drivers who do not have access to home or workplace

charging or require a charging rate faster than that provided by Level 1 (120 volt AC) or Level 2 (240 volt AC) charging. ...”

For highway corridor locations, BC Hydro develops its EV fast charging deployment plans with reference to two studies funded by the Government of B.C.

BC Hydro states that it “develops its deployment plans in consultation with representatives from the Ministry of Energy, Mines and Low Carbon Innovation and the Ministry of Transportation and Infrastructure.”

Regarding the number of stations per site, BC Hydro states:

“The decision to expand an existing site beyond two EV fast charging stations will be dependent on station utilization and the incidence of station congestion. Excessive queuing can lead to a poor customer experience and may inhibit the adoption of electric vehicles.”

BC Hydro’s provision of public fast charging sites and stations is one component of the transportation section of BC Hydro’s forthcoming “Electrification Plan” to be filed with BC Hydro’s F2023-F2025 Revenue Requirement Application in August 2021. [Exhibit B-5, BC Hydro Response to BCSEA-VEVA IR 1.5.1, pdf pp.203-204]

- 2.1 Please compare the geographic locations of BC Hydro’s existing and planned public fast charging sites with the locations of other networks of public fast charging sites in B.C. Can it be said that BC Hydro’s network includes more remote sites than other networks?
- 2.2 In planning the locations of its public fast charging sites, to what extent does BC Hydro take into account existing or planned public fast charging sites operated by exempt providers?

3.0 Topic:

Reference: Exhibit B-5, BC Hydro Response to BCSEA-VEVA IR 1.5.7; Exhibit C-20, Suncor Evidence, p.16

BC Hydro summarizes the legal and policy support for BC Hydro’s role in providing public fast charging service as follows:

Section 18 of the *Clean Energy Act* and the Greenhouse Gas Reduction (Clean Energy) Regulation provides the legal support for BC Hydro to provide the public electric vehicle fast charging service. Section 18(2) of the *Clean Energy Act* clearly states that a public utility carrying out a prescribed undertaking is able to recover costs in rates with respect to the prescribed undertaking. The Government of B.C. has added section 5 to the GGRR to make certain EV charging stations prescribed undertakings.

Additionally, the *Zero-Emission Vehicles Act*, which was enacted on May 30, 2019, also provides support for BC Hydro to provide the electric vehicle fast charging service. The Act codifies the Government of B.C.’s CleanBC plan to reduce greenhouse gas emissions, by stipulating

percentage targets for new light-duty vehicle sales in B.C. that must have zero emissions, as follows: 10 per cent of sales by 2025; 30 per cent of sales by 2030; and 100 per cent of sales by 2040. BC Hydro is building a network of direct current, fast charging EV charging stations across the province to support the reduction of greenhouse gas (“GHG”) emissions. A robust, reliable charging network is important for encouraging electric vehicle adoption, as it will address concerns around range anxiety and is essential for customers who do not have access to home or workplace charging.”

Suncor argues that “the BCUC can only approve a proposed rate [for BC Hydro’s public fast charging service] that accounts for recovery of all BC Hydro’s forecasted EV-charging expenses from those EV users in order to ensure an even playing field with private sector investors and an appropriate level of risk for ratepayers.” [Exhibit C20-4, p.16]

- 3.1 Does BC Hydro agree with the proposition that its rates for public fast charging service must recover all the costs from EV drivers who use the service?

4.0 Topic: 50 kW chargers
Reference: Exhibit B-1, Application, p.11; Exhibit C20-4, Suncor Evidence

The majority of BC Hydro’s public fast charging stations have a nameplate capacity of 50 kW. Suncor says BC Hydro’s 50 kW stations are “out of date” because a large and growing proportion of electric vehicles can charge at rates above 50 kW. Suncor says BC Hydro’s 50 kW stations will prematurely require additional future investment for upgrades and re-assessment of power requirements well before the end of the charging station’s useful life.

- 4.1 Why did BC Hydro choose not to install 100 kW or higher charging stations when it selected its 50 kW stations? Please address factors including the timing of the decisions to use 50 kW stations, the cost of charging equipment, the impact on the need for electrical upgrades at the site, the (notional) cost of demand charges, the proximity of maintenance and repair service, and the current and future customer demand for service at 100 kW and higher.
- 4.2 Does BC Hydro agree that its 50 kW public fast charging stations will require premature replacement with 100 kW and higher charging equipment? If so, would BC Hydro replace existing 50 kW equipment or add additional higher-power charging equipment? If not, why not?
- 4.3 Will BC Hydro’s approach to the power levels of its current and future public fast charging equipment be addressed in the forthcoming Electrification Plan? Will it be addressed in the proposed March 2024 Evaluation Report?

5.0 Topic: Low carbon fuel credits
Reference: Exhibit B-4, BC Hydro Response to BCUC IR 1.7.2.1 (pdf p.166); Exhibit B-5, BC Hydro Response to ChargePoint IR 1.1.16 (pp.464-465)

ChargePoint asked if BC Hydro plans to generate Low Carbon Fuel Standard credits from its fast chargers. BC Hydro referred to its response to BCUC IR 1.7.2.1. In that response, BC Hydro explains why it has not included revenue from sales of LCFS credits states in the rates analysis in the Application. However, BC Hydro does not specify whether it intends to sell LCFS credits. BC Hydro states:

“BC Hydro has considered credit revenues from the sale of credits it receives as a result of electricity sold through its fleet of EV fast charging stations under the Renewable & Low Carbon Fuel Requirements Regulation. The value of any credits depends on the ongoing demand for, and supply of, credits. Future revenues are uncertain as supply and demand may fluctuate year-to-year, and there may be changes in the low carbon fuels program. Because of these uncertainties, BC Hydro has not included any related revenues in the rate analyses presented in the Application.” [Exhibit B-4, BC Hydro Response to BCUC IR 1.7.2.1 (pdf p.166)]

- 5.1 Can BC Hydro confirm that it does receive credits as a result of electricity sold through its fleet of EV fast charging stations under the Renewable & Low Carbon Fuel Requirements Regulation?
- 5.2 Does BC Hydro (directly or through Powerex) sell, or intend to sell, its Low Carbon Fuel Standard credits from public fast charging on the market for LCFS credits?
- 5.3 If not, why not? Is BC Hydro, or to BC Hydro’s knowledge the Government, concerned that the sale of LCFS credits obtained by BC Hydro for its public fast charging service would dilute the market price of LCFS credits and reduce the incentive for fuel suppliers to take carbon-reduction measures under the RLCFR Regulation?

6.0 Topic: Cost of unbilled power

Reference: Exhibit C20-4, Suncor Evidence, para.22, 23, 24, 25, Figure 1

Suncor says that a typical Suncor EV charging site in BC draws up to two- to four-times the amount of electricity actually sold to EV customers. Suncor implies that this “energy loss” or “standby power” would also happen at BC Hydro’s public fast charging stations. Suncor says that BC Hydro’s cost recovery analysis in the Application fails to specifically identify or adequately consider the cost of the power not sold to EV customers. Suncor concludes that “BC Hydro will not be able to recover its electricity costs (excluding maintenance, capital, and other operating costs) with a 21 cent per minute rate structure for 50kW charging stations, or with a 27 cent per minute rate structure for 100kW charging stations based on their own Cost Recovery Calculations provided in section 4.2 of the application.” [para.25]

- 6.1 What is BC Hydro’s response to Suncor’s evidence regarding “energy loss” or “standby power”? Do BC Hydro’s public fast charging stations draw up to two- to four-times the amount of electricity actually sold to EV customers?

- 6.2 Has BC Hydro identified and accounted for “energy loss” or “standby power” in its cost recovery analysis?

7.0 Topic: Optional general service rate for exempt providers of public fast charging

Reference: Exhibit C20-4, Suncor Evidence, para.27, 28, 29; Exhibit C4-3, ChargePoint Evidence, p.6

Suncor and ChargePoint say that in order to stimulate greater investment in public fast charging infrastructure in BC by municipalities, private companies and other exempt providers BC Hydro should propose a rate for its sale of power to providers of public EV fast charging that removes demand charges and has higher energy charges.

BC Hydro states that alternative rate designs are beyond the scope of the current rate approval proceeding:

“Alternative rate designs supporting exempt utility investments in public electric vehicle fast charging service are beyond the scope of this Application, as this Application is about setting rates for BC Hydro’s fast charging stations that are prescribed undertakings under the Greenhouse Gas Reduction (Clean Energy) Regulation and section 18 of the *Clean Energy Act*.”

- 7.1 Has BC Hydro considered an optional general service rate for exempt providers of public fast charging?
- 7.2 Has it discussed such a rate with exempt providers?
- 7.3 Could such a rate be effective in fostering investment in public fast charging infrastructure in BC while conforming with traditional regulatory principles, or would it require cross-subsidization to be effective?
- 7.4 What BC Hydro filing or BCUC proceeding would be the appropriate venue for addressing the merits of an optional general service rate for exempt providers of public fast charging?