

REQUESTOR NAME: **BC Sustainable Energy Association and Sierra Club BC**

REPLY TO INFORMATION REQUEST ROUND NO: 1

FROM: **Donald Flintoff**

DATE: **Tuesday, June 5, 2018**

PROJECT NO: **1598941**

APPLICATION NAME: **British Columbia Utilities Commission Inquiry into the Regulation of Electric Vehicle Charging Service**

1.0 Topic: Recommendations

Reference: Exhibit C4-2, C4-2-1, C4-3, Donald Flintoff Evidence

"In my submission, I support:

- the use of FortisBC Non-Regulated Business (NRB) to supply this service, operating in a competitive environment, and providing consumer choice;
- Ministerial exemption from regulation of DCFC charging station rates which can be withheld/cancelled on complaint. Any exemptions should expire after five years and another inquiry should be held to determine if the exemptions are working in the public interest.
- the application of energy-base rates;
- the rate design of EV charging stations separated from the public utility's traditional cost of service model;
- the supply service rate to the EV charging stations based on the public utility's commercial retail rate or variant thereof; and
- EV charging stations not being included in the public utilities rate base.

Further, I oppose:

- cross subsidization from other rate classes to support the new entrepreneurial service for DCFC charging stations, and
- any inclusion of the DCFC station costs in the public utilities rate base.

In my opinion, I believe that there are sufficient charging stations within the FortisBC service area and market forces will provide even more as the demand increases." [Exhibit C4-2, pdf p.4]

1.1 Regarding your support for "the use of FortisBC Non-Regulated Business (NRB) to supply this service, operating in a competitive environment, and providing consumer choice,"

1.1.1 Do you have the same view regarding BC Hydro? If not, why not?

1.1.2 Does your view that EV charging service provided by FBC should be done through an NRB depend on your belief that "there are sufficient charging stations within the FortisBC service area and market forces will provide even more as the demand increases"? In your view, should any and all EV charging service provided by FBC be done through an NRB even if it was the case (hypothetically) that there was an insufficient number of charging

stations within the FBC service area or that market forces would not provide more as the demand increases?

- 1.1.3 Please explain FBC NRB EV charging service “operating in a competitive environment, and providing consumer choice.” Is the existence of a competitive environment a future objective or the existing situation?

RESPONSE

- 1.1.1. Yes. In the 1990’s, I dealt with BC Hydro International Ltd (BCHIL). I am unsure of the status of BCHIL today.
- 1.1.2. Yes. All DCFC charging stations should be provided by NRBs even if there was an insufficient number of charging stations within the FBC service area or that market forces would not provide more as the demand increases. The owners of BEVs should have bought PHEVs in these areas.
- 1.1.3. For FBC’s NRB to make a profit for its investors, the price charged for DCFC charging may have to vary according to location, station usage, and other factors. Hence, it would be operating in a competitive environment with variable charging rate rather than a fixed charging rate regulated by the Commission. Market forces will determine the charging rates employed.

- 1.2 Regarding “Ministerial exemption from regulation of DCFC charging station rates which can be withheld/cancelled on complaint, please explain this recommendation more fully.
 - 1.2.1 Is the intention that this conditional exemption would apply to any and all DCFC services available to the public, i.e., whether provided by BC Hydro, FortisBC, Telsa, or some other provider?
 - 1.2.2 To be clear, is the intention that when a DCFC station has an exemption from rates regulation the operator would be entitled to set rates according to charging time, as distinct from energy transfer?
 - 1.2.3 What type of criteria would the Commission use to determine whether to withhold or cancel a DCFC station’s exemption? Would this be limited to safety and reliability, or would it include complaints about the rates charged for EV charging services?
 - 1.2.4 Is the intention that the withholding or cancelation of rates regulation would be applied to one or more specific DCFC charging stations or to all exempt DCFC charging stations?
 - 1.2.5 Where an exemption from rates regulation was withheld or canceled, what form of regulation would apply to the DCFC charging station? Would this be full cost-of-service rates regulation?
 - 1.2.6 What would be the stated purpose of the exemption? Would it be to enhance competition between DCFC charging service providers? Would it be to encourage the provision of DCFC charging service to the public?

RESPONSE

- 1.2.1 Yes. The conditions could be the result of further inquiry after 5 years and exemption review upon complaint.
- 1.2.2 Yes, until such time as Measurement Canada approves an energy meter for DCFC charging stations. Energy transfer is preferred over time.
- 1.2.3 I would not support to withholding or cancelling a DCFC station’s exemption. Rather, I would prefer a per diem penalty be levied against the operator for safety, reliability and billing issues.
- 1.2.4 A per diem penalty could be levied against the operator of a group of stations for which he has an exemption.
- 1.2.5 A per diem penalty would apply as there is no wish to shut down the DCFC charging station unless it is for safety issues. A shutdown of a station or group of stations may not be in the public interest.

- 1.2.6 The purpose of the exemption would be to level the field so that NRBs and private DCFC service providers could compete fairly.

- 1.3 Regarding “In my opinion, I believe that there are sufficient charging stations within the FortisBC service area and market forces will provide even more as the demand increases,”
- 1.3.1 Is it your view that there are sufficient EV charging stations within the FBC service area without the new DCFC EV charging proposed by FBC?
- 1.3.2 What is your response to the view expressed by some that in BC at the present time market forces alone are not sufficient to result in new DCFC EV charging services available to the public?

RESPONSE

- 1.3.1 As about 80% of all charging occurs at home with Level 1 or Level 2 chargers, then new DCFC charging stations are questionable. If the issue is range, then the EV owner should have bought a PHEV rather than a BEV. If you’ve purchased a BEV within the FBC service area, you should have purchased a charger (Level 2), or purchased a PHEV to avoid the range anxiety in FBC’s service area. As I do not know the exact count of charging stations and EVs in the FBC service area, I can not say there are sufficient EV charging stations. However, Plug-in BC map shows quite a few EV charging stations in the FBC service area.
- 1.3.2 Supply and demand is perhaps one of the most fundamental concepts of economics. Why should the ratepayers subsidize BEV owners who wish to drive their BEVs as they did their gasoline vehicles? If the demand is there then the marketplace will provide the DCFCs for a competitive price to cover its costs.

The BC government already has implemented a DC Fast Charger Program¹ and Clean Transportation Policies & Programs as well as the Greenhouse Gas Reduction Regulation (GGRR), authorized under sections 18 and 35(n) of the Clean Energy Act, allows government to set out prescribed undertakings which utilities may choose to carry out to reduce greenhouse gas emissions while recovering the costs in rates.

¹ <https://www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/transportation-energies/clean-transportation-policies-programs/clean-energy-vehicle-program/charging-infrastructure/dcfc-program>

2.0 Topic: Financial support for DCFC to the public
Reference: Exhibit C4-2, C4-2-1, C4-3, Donald Flintoff Evidence

“1.6 Recommendations

As the battery technology changes; the method of EV charging will change. We have almost abandoned the Level 1 charging technology as being too slow. Level 2 may experience the same decline. Levels 3 & 4 offer fast charging. However, induction charging is promising as it does not involve much effort on the part of the EV owner (i.e. does not need to be plugged in). As the charging rate of induction charging increases, it may even displace Level 3 (DCFC) chargers. As there is still volatility in this market, it would be prudent for a public utility to stay with its core business and use a non-regulated business model to compete in this market to avoid unnecessary risks being transferred to its ratepayers. The newer solid-state batteries, although not available yet, have even faster charging times and will most likely displace the Level 3 & 4 DCFC chargers.

Even if the provincial government decides the provision of DCFC charging stations are desirable, private enterprise should provide them. Regardless, the Commission must safeguard the public utility’s ratepayers against cross-subsidization and stranded assets.

For these reasons and the reasons in the previous submission, the public utility should not engage in this market. However, the non-regulated business arm of the public utility may engage in the EV charging station market.” [Exhibit C4-2-1, underline added]

- 2.1 Do you have a view on whether the provincial government should financially support DCFC services to the public provided by private enterprise or by non-regulated businesses (NRBs) of BC Hydro and FBC?
- 2.2 In your view, to what extent, if at all, should the Commission determine that there is a public interest in facilitating the expansion of the provision of DCFC service to the public in B.C. as a factor to be considered in the Commission’s conclusions about the regulation of EV charging services?

RESPONSE

- 2.1 The provincial government is financially supporting the New Car Dealers Association (NCDA) by providing \$15 million in incentives to date through its Clean Energy Vehicle for BC (CEVforBC™), British Columbia’s Point of Sale Incentive Program designed to make clean energy vehicles (CEV’s) more affordable for British Columbians. If the provincial government wishes to financially support DCFC services to the public provided by private enterprise or by non-regulated businesses (NRBs) of BC Hydro and FBC, then it should be funded by the taxpayers, not the ratepayers. The Province has invested over \$71 million in the Clean Energy Vehicle Program’s point-of-sale purchase incentives, infrastructure, outreach, research and training.

CEVforBC™ encourages the adoption of new, clean energy vehicles. B.C. residents, businesses, non-profit organizations and local government organizations who purchase or lease qualifying new vehicles, are eligible for up to \$5,000 off the final vehicle price for qualifying new battery electric, fuel-cell electric, and plug-in hybrid electric vehicles and up to \$6,000 for a hydrogen fuel cell vehicle. Will hydrogen fueling stations be another future Commission inquiry?

- 2.2 The Commission could determine that there is a public interest in facilitating the expansion of the provision of DCFC service to the public in B.C. as a factor to be considered in the Commission's conclusions about the regulation of EV charging services. However, the regulation of EV charging service will become increasingly more difficult especially when some of the stations will not be profitable and may have to be closed or new or other rates established.

The public interest in this instance should be determined by the BC Government not the Commission. The Clean Energy Act and its amendment may have already addressed this matter.