OWEN · BIRD
LAW CORPORATION

PO Box 49130
Three Bentall Centre
2900-595 Burrard Street
Vancouver, BC
Canada V7X 1J5

Telephone 604 688-0401
Fax 604 688-2827
Website www.owenbird.com

Direct Line: 604 691-7557
Direct Fax: 604 632-4482
E-mail: cweafer@owenbird.com
Our File: 23841/0179

May 15, 2018

VIA EMAIL
GAS.REGULATORY.AFFAIRS@FORTISBC.COM &
ELECTRICITY.REGULATORY.AFFAIRS@FORTISBC.COM

FortisBC Inc.
16705 Fraser Highway
Surrey, BC
V4N 0E8

Attention: Ms. Diane Roy, Vice President, Regulatory Affairs

Dear Sirs/Mesdames:

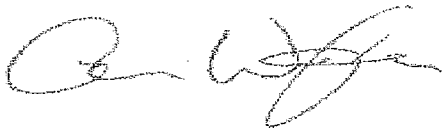
Re: British Columbia Utilities Commission Inquiry into the Regulation of Electric Vehicle Charging Service ~ Project No. 1598941

We are counsel to the Commercial Energy Consumers Association of British Columbia (the "CEC"). Attached please find the CEC's Information Request on written evidence with respect to the above-noted proceeding.

If you have any questions regarding the foregoing, please do not hesitate to contact the undersigned.

Yours truly,

OWEN BIRD LAW CORPORATION



Christopher P. Weafer

CPW/jj

cc: BCUC – Atten: Patrick Wruck, Commission Secretary
cc: Registered Interveners
cc: CEC

COMMERCIAL ENERGY CONSUMERS ASSOCIATION OF BRITISH COLUMBIA ("CEC")

INFORMATION REQUEST NO. 1 TO FORTISBC INC. ("FBC")

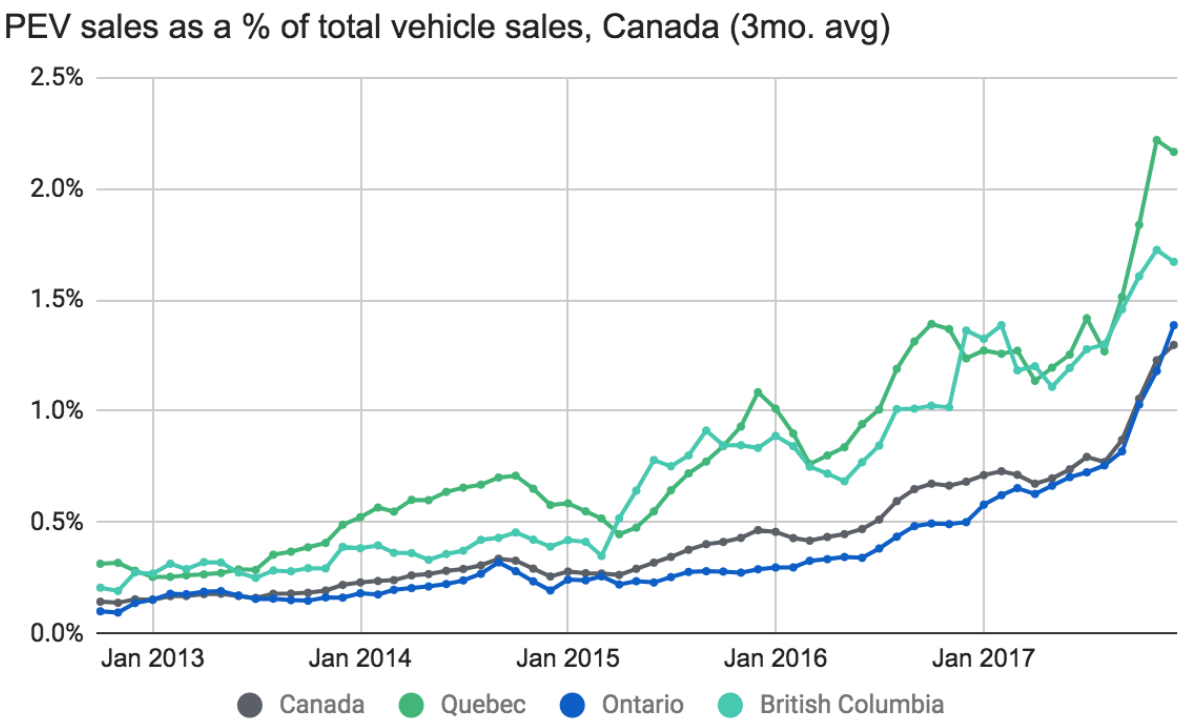
British Columbia Utilities Commission – Inquiry into the Regulation of Electric Vehicle Charging Service ~ Project No. 1598941

May 15, 2018

---

1. Reference: Exhibit C12-2, Page 3

1 **Figure 2-1: PEV Sales as a Percentage of Total Vehicle Sales, Canada [4]**



1.1 Please confirm that the evidence on the breakdown of PEVs between PHEVs and BEVs is that roughly ½ of each are represented in the total as of 2017 and that BEV's were a lesser fraction in the past.

2. Reference: Exhibit C12-2, Page 4

Table 2-1: EV Charging Types

Type of Charging	Charging Level	Time to Charge	Vehicle Type	Typical Locations	Costs to Install
Level 1	AC (120 volt)	Four hours for 30 minutes of driving	PHEV or BEV	Residences, some public	$200-$2,000
Level 2	AC (240 volt)	Four hours for full charge	PHEV or BEV	Residences, Municipal locations, office towers, parks, recreational facilities, shopping malls	$1,000 - $2,500
Level 3	Direct Current Fast Charging (DCFC)	30 – 60 minutes for full charge	BEV only	Highway corridors	$50,000 - $100,000

2.1 Please explain why BEV's are the only type of vehicle that can access Level 3 DCFC charging.

3. Reference: Exhibit C12-2, Page 10

> The development of EV charging infrastructure stations is consistent with the intent of these prescribed undertakings, particularly considering that these stations will enable customers to use electricity for transportation rather than more carbon-intensive fuel sources. These considerations with respect to Section 4 (3) of the GGRR and the strong alignment with government policy discussed above confirm the merits of utilities providing EV charging service and stimulate market demand in the province.

3.1 Please confirm or otherwise explain that the GGRR does not provide direction with respect to how much subsidy a utility should provide to support fuel switching from gasoline and diesel to electricity for transportation.

3.2 Please confirm that the assertion that the merits for utilities being confirmed is a qualitative opinion and not a direction or a quantitative assessment of how much utilities should spend and that at this time such a decision would be in the purview of the Commission in its rate setting role, which is why FBC has applied for rate setting.

4. Reference: Exhibit C12-2, Page 11

> The market is emerging (and not competitive) because:
>
> - There are financial barriers to entities entering the market due to demand being low and therefore infrastructure is not cost effective, even when considering subsidies and incentives from government and other agencies[20];
> - There are few buyers and sellers; and
> - The few customers have limited choice in who they buy from.

4.1 Is FBC asserting that having an uneconomic product for which there is low demand is the criteria for defining a market as not competitive versus being a natural monopoly service?

5. Reference: Exhibit C12-2, Page 12

> FBC believes that the main barriers to the mass adoption of EVs for personal transportation are:
>
> - concern by prospective EV buyers that they might not be able to make it to where they want to go or that they might not have charging infrastructure close by when needed[23]; and
> - the current number of EV owners (buyers) and estimated demand for EV Level 3 charging service does not support recovery of the infrastructure and service costs, particularly in the earlier years.

5.1 Please confirm that a vehicle owner has the choice of acquiring a PHEV or EREV and being able to make it to wherever they need to go as far as personal vehicle transportation is concerned.

5.2 Please provide any evidence FBC has with respect to the expansion of BEV sales in BC caused by the expansion of DCFC charging stations on highway corridors.

5.3 Please provide FBC's quantitative assessment of the actual costs for Level 3 charging infrastructure and the level of cost recovery that these services currently recover or could recover based on actual usage to date and how those match the projected levelized approach to recovery costs over time.

6. Reference: Exhibit C12-2, Page 13

> Customers of EV charging stations have limited access to public charging service when compared to the availability of gasoline and diesel for internal combustion engine vehicles. In the vast majority of the province, and even significant parts of the Lower Mainland, there is not even one public charging station conveniently available to EV owners. Where private charging stations are available to the public they are generally Level 2, and therefore charging times are longer and EV owners may be subject to restrictions imposed by the owners. These limited choices mean that for many users, only home charging is a viable option.

6.1 Is FBC suggesting that the standard for an emerging market should be the same availability of refueling service as the gasoline and diesel stations?

6.2 Can FBC confirm that home charging is in fact a viable option for EV owners who have suitable schedules to take advantage of overnight home charging for their vehicles?

7. Reference: Exhibit C12-2, Page 14

> The Commission has indicated in other decisions or reports such as the Alternative Energy Services Report (Order G-201-12) and the Proposed Regulatory Framework and Guide for Thermal Energy Service Utilities (Order G-231-13A) that it will be guided by key principles such as: "where regulation is required use the least amount of regulation needed to protect the ratepayer" and "the benefits of regulation should outweigh the costs". The Commission has discretion in how it chooses to regulate public utility activities, and in this case, as in others, the degree and nature of the regulation should be appropriate to the circumstances. FBC believes that, regardless of what level of regulation the Commission ultimately determines is appropriate for EV Charging Stations, utilities have an important role to play in the development of the EV market and should be encouraged to provide this service to facilitate the deployment of EV charging infrastructure in this province and support the BC climate action goal of reducing GHG emissions.

7.1 Does FBC agree with the Commissions principle that "the benefits of regulation should outweigh the cost"?

7.2 Does FBC consider that the benefits of EV charging should outweigh the costs for the charging?

7.3 Does FBC consider that its quantitative projection evidence in its rate design as to when in the future the benefits of EV charging infrastructure might outweigh the cost represents that the benefits should outweigh the costs in the near future.

7.4 Does FBC agree that one of the benefits of regulation of utilities would come from stopping utilities from imposing costs on their customers for subsidizing uneconomic services and supply after consideration of the appropriate values for the public interest issues?

7.5 Does FBC have a position on where the limits for cost and investment in uneconomic activity should be set by the Commission and does FBC expect to be held accountable for the prudence of their projections of profitable operation in the relatively near term.

7.6 Has FBC assessed and developed quantitative evidence on whether or not this investment in fuel switching for GHG reduction is at an appropriate level of cost for GHG reduction or are there better and more cost-effective alternatives?

7.6.1 Please confirm that at the proposed charging rates in FBC's applications that the fuel savings for customers make the GHG reduction a byproduct benefit and therefore very low cost GHG reduction.

7.7 Does FBC agree that the Commission should be concerned with the cost-effectiveness of a utility investment in EV charging?

8. Reference: Exhibit C12-2, Page 17

> In consideration of these factors, in the early years of implementation, it will be necessary for some recovery of costs to come from general ratepayers. Strict adherence to a cost-of-service model on a year-by-year basis may result in prohibitively high EV charging rates in the early years that would discourage EV customers from using the charging stations.

8.1 Please provide any quantitative analysis FBC has with respect to assessing when in the future EV charging rates would become economic for EV customers and or confirm that FBC expects that its proposed levelized charging rates would be economic for customers from the outset.

9. Reference: Exhibit C12-2, Page 18

> FBC recommends that a new rate should be developed for electricity supply to EV charging stations, since its existing retail and wholesale rate schedules contain components, such as demand charges or high customer charges that would make them inappropriate to support the development of EV charging infrastructure in the province. The rate should reflect the unique characteristics of the service being provided.

9.1 If a customer is using electricity during peak times, why does FBC consider it inappropriate that a tariff rate with the relevant demand charges should not apply?

9.2 Would FBC support TOU rates for EV charging during low load hour times and if not please explain?

10. Reference: Exhibit C12-2, Page 19

> for utility ownership and operation of CNG and LNG fueling stations. The intent of the GGRR is to reduce greenhouse gas emissions in BC in the transportation and other sectors. The GGRR is a regulation under section 18 of the Clean Energy Act. The Commission must allow a utility carrying out a prescribed undertaking to recover the costs in rates. As discussed above in section 2.5, the 2017 "electrification" amendments to the GGRR provide a basis for EV charging infrastructure to be counted as prescribed undertakings and support utilities being able to include the costs in utility rate base and cost of service.

10.1 Please confirm that the CEA's GGRR provisions do not establish cost-effectiveness for electrification investment and would leave the regulation of cost-effective investment to the Commission.

10.2 Please confirm that the CEA's GGRR provisions for electrification cost recovery do not establish the allowed methods for cost recovery.

10.3 Please confirm that the FBC application for EV charging rate setting is intended to have the Commission establish the regulatory basis for FBC's proposed transportation electrification initiatives.

11. Reference: Exhibit C12-2, Page 20

> As discussed above, FBC's proposed rate to recover the capital and operating costs of its EV charging station service is based on the cost of service of stations, net of contributions in aid of construction received from other parties. It is likely that in early years of operation, costs will exceed revenues and could result in small deficits based on the conventional components of cost of service analysis. However, as the demand grows over the coming years, the service may generate a net benefit to general ratepayers over time. And when considering the potential for low carbon fuel credits, this could occur even in the early years.

11.1 Please confirm that FBC's analysis with respect to the revenues and costs for FBC's proposed charging stations is at page 22 of their rate design application.

11.1.1 Please confirm that the Level 3 DCFC charging costing is on Page 20.

11.1.2 Please provide the cost structure breakdown for the costing included to confirm that the cost inclusion is comprehensive.

11.1.3 Please comment on any likely cost variation factors FBC may expect as sensitivities to these numbers.

11.2 Please provide FBC's assessment of the carbon fuel credit opportunity for the future.

11.2.1 Please confirm that the FBC cost and revenue analysis does not include potential carbon credit revenues and if it so or not please provide an estimate of the carbon credits that would match these revenue.

11.3 Please discuss whether or not the potential for a profitable operation of EV charging would apply equally to the private sector participants as it would to the utility participants.

11.4 Please confirm that FBC does not expect that in the future the EV charging service will be a natural monopoly.

11.5 Please outline FBC's intent with respect to EV charging investment, is it to bridge and accelerate the transition of transportation to electricity as a fuel running in an open and competitive market or is it to have a long-term participation in the EV charging market beneficial to its ratepayers and to its EV charging customers alike.

11.6 Please discuss whether or not FBC's investment in EV charging stations and operation at a loss for a period of time could have the potential of undercutting development of the competitive market and its ability to provide such services and benefits to the public.

12. Reference: Exhibit C12-2, Page 21

> In alignment with the experience elsewhere, FBC believes that a public utility should provide EV charging Service within its regulated business to achieve the goal of reducing GHG emissions in accordance with the Government clean energy goals and initiatives. The primary focus at this time should be to facilitate the deployment of EV charging infrastructure.

12.1 Does FBC expect that the Commission would or may set limits on the extent of FBC's proposed investments in EV charging structure and the degree to which FBC's customers should subsidize this electrification transition?