Diane Roy
Vice President, Regulatory Affairs

Gas Regulatory Affairs Correspondence
Email: gas.regulatory.affairs@fortisbc.com

Electric Regulatory Affairs Correspondence
Email: electricity.regulatory.affairs@fortisbc.com

FortisBC
16705 Fraser Highway
Surrey, B.C. V4N 0E8
Tel: (604)576-7349
Cell: (604) 908-2790
Fax: (604) 576-7074
www.fortisbc.com

August 23, 2022

B.C. Sustainable Energy Association
c/o William J. Andrews, Barrister & Solicitor
70 Talbot Street
Guelph, ON
N1G 2E9

Attention: Mr. William J. Andrews

Vancouver Electric Vehicle Association
c/o Robert Sparks
2021 Panorama Dr
North Vancouver, BC
V7G 1V2

Attention: Mr. Robert Sparks

Dear Mr. Andrews and Mr. Sparks:

Re: FortisBC Inc. (FBC)

Application for Approval of a Deferral Account for Electric Vehicle Workplace and Fleet Charging Funding (the Application)

Response to the B.C. Sustainable Energy Association (BCSEA) and the Vancouver Electric Vehicle Association (VEVA) Information Request (IR) No. 1

On May 13, 2022, FBC filed the Application referenced above. In accordance with the regulatory timetable established in British Columbia Utilities Commission Order G-152-22 for the review of the Application, FBC respectfully submits the attached response to BCSEA-VEVA IR No. 1.

For convenience and efficiency, FBC has occasionally provided an internet address for referenced reports instead of attaching lengthy documents to its IR responses. FBC intends for the referenced documents to form part of its IR responses and the evidentiary record in this proceeding.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC INC.

Original signed:

Diane Roy

Attachments

cc (email only): Commission Secretary
Registered Parties

1.0 Topic: Need and Alternatives

Reference: Exhibit B-1, Application, 1.1.1 Introduction

FBC states:

> "The FBC Electric Vehicle (EV) Workplace and Fleet Charging Program (Program) will provide funding to organizations to assist in the acquisition and installation of EV charging infrastructure to encourage the use of electric vehicles instead of vehicles that use other sources of energy that produce more greenhouse gas emissions, such as gasoline or diesel fuel.

1.1 Please discuss how the Program fits into the BC government's objective of decarbonizing transportation in BC.

<u>Response:</u>

FBC has created the Program to promote the adoption of EVs by enabling workplaces and businesses with electric fleets to utilize funding for the installation of charging infrastructure. This Program reduces the cost of purchasing and installing charging equipment, which can be an obstacle to the BC government's objective of decarbonizing transportation.

FBC states:

> <u>"EV charging infrastructure for either light-duty fleet vehicle or workplace charging for employees is not yet widely available within FBC's service territory</u>. As EV adoption continues to progress and accelerate, the availability of this infrastructure will become increasingly important. <u>Drivers and fleet operators will be looking for additional charging options and the barriers related to the deployment of infrastructure to support light-duty EV charging for fleets and employee workplace charging will need to be addressed</u>. Transportation currently accounts for 37 percent of the province's greenhouse gas emissions. As a utility with operations throughout the BC Southern Interior, <u>FBC is well positioned to support investment in EV charging infrastructure where challenging economics may discourage private investment."</u> [pdf p.5, footnote omitted, underline added]

1.2 What are the barriers to the deployment of EV charging infrastructure for light-duty fleets charging and workplace charging in FBC's service territory?

Response:

One of the largest barriers to deployment of EV charging infrastructure for light-duty fleets and workplace charging is the upfront costs of design, materials, and installation of the charging equipment and associated electrical infrastructure. This Program offers funding to reduce those barriers, which is especially important in areas where private investment in public charging infrastructure is challenging.

1.3 Does FBC consider that the main barrier is the challenging economics?

Response:

Yes, please refer to the response to BCSEA-VEVA IR1 1.2.

1.4 Are the government programs that provide funding for the deployment of EV charging infrastructure for fleets and employee workplace charging in FBC's service territory inadequate to overcome the challenging economics?

Response:

The government programs that provide funding for the deployment of EV charging infrastructure have a variety of rebate limits for design, electric infrastructure, and charging equipment. For example, the workplace stream of the provincial CleanBC Go Electric program is currently topped-up for charging equipment rebates from the federal ZEVIP program, offering up to 75 percent of equipment costs with a maximum of $5,000; however, electrical infrastructure rebates are not offered. The FBC Program will further reduce customer project costs (to a maximum of 75 percent of all costs) where government programs do not provide support or have lower maximums.

1.5 If not explained in response to BCUC IR 8.4, please discuss the role and need for the Electric Vehicle Workplace and Fleet Charging Funding Program in the context of the ZEVIP and CleanBC Go Electric program.

Response:

Please refer to the response to BCSEA-VEVA IR1 1.4.

1.6 Does FBC see the Program as an alternative to a new rate for customers who operate light-duty fleet EV charging or workplace EV charging? If so, why does FBC prefer the Program over a rates approach? If not, please explain.

Response:

Please refer to the response to BCUC IR1 8.3.1.

2.0 Topic: Consultation

Reference: Exhibit B-1, 1.1.1 Introduction

FBC states:

> "FBC consulted five organizations regarding potential deployment of workplace and light-duty fleet Level 2 chargers. All chargers are likely to qualify for ZEVIP and CleanBC funding in addition to funding through the Program. Although firm commitments have not been made, there is a high level of interest in deploying Level 2 charging infrastructure." [pdf p.5, underline added]

2.1 Are all the chargers eligible for the Program likely to qualify for ZEVIP and CleanBC funding in addition to funding through the Program?

Response:

Yes, it is likely that charging equipment eligible for the Program will also qualify for ZEVIP and CleanBC funding. Please also refer to the response to BCUC IR1 8.4.

2.2 Please fully explain what information FBC received from the five organizations that FBC consulted in developing the Program.

Response:

As part of the development of FBC's application to NRCan ZEVIP for funding for light-duty fleet and workplace charging infrastructure, the organizations provided a list of intended deployments. This included the number of chargers for light-duty fleet installations, the number of chargers for workplace installations, and the locations of the fleet depots or workplaces.

2.3 In developing the Program, did FBC consult with the operators of the ZEVIP program and the CleanBC funding program? If so, what information did FBC receive from these sources?

Response:

FBC currently administers the CleanBC Go Electric Home and Workplace program for customers in the FBC electric service territory. FBC's experience in administering this program will be used to help inform the delivery of the proposed Program for customers. Although FBC did not formally consult with Fraser Basin Council (who administer the CleanBC Go Electric Fleets program), FBC does work closely with both Fraser Basin Council as well as the Province as part of the overall delivery of the CleanBC EV infrastructure programs. FBC did discuss its proposed Program with Fraser Basin Council and the Province who both indicated their support for additional infrastructure funding sources to help support transportation electrification, and possible methods to ensure overall funding does not exceed 75 percent of all project costs.

2.4 Please confirm, or otherwise explain, that funding from ZEVIP, CleanBC and the FBC Program is ‘stackable.’

Response:

Confirmed. Please also refer to the response to BCUC IR1 8.4.

3.0 Topic: Need for and role of the Electric Vehicle Workplace and Fleet Charging program

Reference: Exhibit B-1, Table 1: Funding Timeline and Total Program Expenditure, page 2, pdf p.6

Table 1: Funding Timeline and Program Expenditure shows yearly expected New Applications to the Program from 2022 to 2025, with a total of 310 New Applications over the time period.

3.1 Please provide a rough breakdown of expected New Applications by light-duty fleet charging and workplace charging.

Response:

Based on conversations with prospective customers, FBC estimates 40 percent of applications are expected to be for workplace charging and 60 percent for light-duty fleet charging.

3.2 What does FBC expect to be the number of customers eligible for the Program, by year or in total? Please provide expected New Applications, by year or in total, as a percentage of the number of eligible customers.

Response:

Program participation is not restricted to existing customers, and FBC expects that some program participants will require new commercial services. The number of eligible customers is not therefore identifiable or related to the pool of existing RS 21 customers, and a percentage cannot be provided. For context, FBC currently has approximately 17,000 small-commercial and commercial customers which FBC believes are the most likely to participate.

4.0 Topic: Program Extension

Reference: Exhibit B-1, 1.1.3 Funding Timeline and Total Program Expenditure

With reference to Table 1: Funding Timeline and Program Expenditure, FBC states:

> "Although it is anticipated that funds will be allocated as shown within these years, the actual funding is dependent on the number of applications received in a given year." [pdf p.6]

4.1 Would FBC apply to extend the Program beyond 2025 if participation levels warrant? Please discuss the factors FBC would take into account.

Response:

Please refer to the response to BCUC IR1 2.2.

5.0 Topic: Charge for Shortfall

Reference: Exhibit B-1, 1.1.3 Funding Timeline and Total Program Expenditure

FEI states:

> "The annual energy consumption and peak demand per charger are key assumptions that underpin the derivation of the Program funding amount. As such, Program participants will be billed at minimum for the revenue that the assumed consumption and demand per charger would yield on an annual basis. In the case where a charging station yields less than this amount of revenue within a one-year period from the energization date, a one-time charge for the shortfall will be billed. Where a customer has more than one charger served from a common metering point, the fixed obligation will be based on the number of chargers. This minimum revenue requirement is intended to incent the Program participants to encourage the efficient usage of the EV charging infrastructure installed under the Program." [pdf p.6]

5.1 Please further explain the statement that "Program participants will be billed at minimum for the revenue that the assumed consumption and demand per charger would yield on an annual basis."

5.1.1 Does the charge for a shortfall apply only in the first one-year period from the energization date? Is there no charge for a shortfall that occurs in the second or subsequent year after energization?

<u>Response:</u>

FBC clarifies, as discussed in the response to BCUC IR1 10.4, the minimum revenue will be set at an amount to ensure the Program is cost-effective under the requirement of the GGRR while also considering the assumed annual consumption of 2,500 kWh per charger shown in Section 1.1.2 of the Application and an estimated demand of 6 kVA per charger as discussed in the response to BCUC IR1 4.3.

FBC also clarifies that the statement "within a one-year period from the energization date" was used only as an example for the first year. The one-time recovery of any shortfall will occur on an annual basis, as also noted in the reference, until 2030. Please refer to the response to BCUC IR1 10.5.

5.1.2 How is the calculation done if there is more than one charger served from a common metering point and each charger is not energized at the same time?

Response:

The calculation of minimum revenue is based on the number of chargers multiplied by the minimum billing amount per incented charger at a site regardless of the metering configuration. It is assumed that the chargers served by a metering point will be energized at the same time. If this assumption proves incorrect, FBC will determine a reasonable basis for the minimum charge calculation (for example, a prorated minimum amount based on the length of time each charger has been energized in the previous 12-month period).

6.0 Topic: Cost Effectiveness

Reference: Exhibit B-1, 2.3.2 Cost Effectiveness

FEI cites the GGRR definition of "cost effective" as follows:

> "Cost effective" is a defined term within section 4 of the GGRR meaning, "[…] that the present value of the benefits <u>of all of the public utility's undertakings within the classes defined in subsection (3) (a) or (b)</u> exceeds the present value of the costs of all of those undertakings when both are calculated using a discount rate equal to the public utility's weighted average cost of capital over a period that ends no later than a specified year." [pdf p.11, underline added]

6.1 Does FBC have any prescribed undertakings under GGRR s.4(3)(a) or (b) in addition to the proposed EV Workplace and Fleet Charging Program? If so, please discuss any implications for evaluating the cost effectiveness of the Program.

<u>Response:</u>

FBC does not currently have any other programs that are prescribed undertakings under GGRR section 4(3)(a) or (b).

7.0 Topic: Benefits and Costs

Reference: Exhibit B-1, Application, 2.3.2 Cost Effectiveness

FBC states:

> "To calculate the benefits in the cost effectiveness test, FBC has used the revenues derived from the sale of energy to Program participants under the existing commercial rate (Rate Schedule (RS) 21) that would normally apply to load of this size. FBC has assumed, due to the long duration of charging sessions, that demand from all incented chargers at a site will be coincident at some point during the billing period. Therefore, the assumed demand revenue is based on the sum of the maximum demand from each incented charging station." [pdf p.12]

7.1 In analyzing the cost-effectiveness of the Program according to the GGRR's requirements, did FBC consider the possibility of free-ridership or spillover, i.e., Program participants who would have deployed Level 2 chargers in the absence of the Program, or non-participants who deployed Level 2 chargers due to the existence of the Program, respectively?

<u>Response:</u>

While there is a potential for free-ridership and spillover to exist in the Program, just as with other contribution-based programs, this potential did not factor into the cost-effectiveness test used by FBC.

FBC states:

> "As a proxy for the Program's incremental power purchase costs, FBC has used the British Columbia Hydro and Power Authority (BC Hydro) 3808 Tranche 1 rate and the monthly demand charge associated with purchases that FBC makes under its Power Purchase Agreement (PPA) with BC Hydro. To reflect the fact that a portion of Program load will be non-coincident with the time at which the peak demand is set for the BC Hydro PPA, FBC has incorporated a coincidence factor of 73.5 percent to the PPA demand costs. This coincidence factor is consistent with the results of FBC's most recent Cost of Service Analysis filed with the BCUC. The power purchase costs also incorporate the deferred capital expenditure charge of $51/kW-Year from the FBC 2021 LTERP, which is the incremental cost for FBC to take on new capacity." [pdf p.12]

7.2 Please explain further what makes the Power Purchase Agreement between FBC and BC Hydro the appropriate basis for estimating the Program's implicit incremental power purchase costs.

Response:

The BC Hydro PPA, and specifically the Tranche 1 price under BC Hydro RS 3808, has served as a proxy for incremental power purchase costs, and has been accepted by the BCUC, in other FBC rates such as RS 37 (Stand-by Service) and RS 95 (Net Metering). On an operational basis, incremental load will be served by either additional purchases under the PPA, or from the market, which can vary in pricing. FBC used this rate as a basis for estimating the Program's implicit incremental power purchase costs as it is the most likely source, and maintains consistency with other rates currently in effect.

8.0 Topic: Reporting

Reference: Exhibit B-1, 2.4 Reporting Requirements

FBC states that in addition to reporting on the Program to the Minister of Energy and Mines as required by the Clean Energy Act sections 18(4) and (5), FBC "intends to provide information on the Program to the BCUC as part of its Annual Reviews for Rates." [pdf p.13].

8.1 Please outline the expected contents of FBC's reporting on the Program as part of FBC's Annual Reviews for Rates.

Response:

As part of the Annual Review process, FBC would provide details of the deferral account balance within the financial schedules, which will include the actual costs of the program from prior years and the forecast costs, consistent with how FBC reports on all of its deferral accounts.

9.0 Topic: Recovery in Rates

Reference: Exhibit B-1, 3.1 Rate Recovery Considerations

FBC states:

> "The costs incurred by FBC under the Program will be incremental expenditures to the levels of deferral, capital, and operating and maintenance expenses included in FBC's 2022 Annual Review for Rates approved by Order G-374-21." [pdf p.14]

9.1 Can FBC confirm that all of FBC's Program costs are or will be incremental to the levels of deferral, capital, and operating and maintenance expenses included in FBC's Multi-year Rate Plan for 2020 to 2024?

<u>Response:</u>

Confirmed.

10.0 Topic: Rate Base Treatment

Reference: Exhibit B-1, 3.2 Rate Base Treatment of Program Costs

FBC begins section 3.2 of the Application by stating:

> "The proposed prescribed undertaking is made up of contributions to FBC fleet customers to construct Level 2 electric vehicle chargers." [pdf p.14, underline added].

10.1 Are contributions for Workplace EV charging included in 3.2 Rate Base Treatment of Program Costs?

Response:

Yes, contributions to Workplace EV charging customers would be treated the same as contributions made to fleet customers; both contributions would be included in the rate base deferral account.

11.0 Topic: Amortization Period

Reference: Exhibit B-1, 3.4 Amortization Period

FBC proposes a 10-year amortization period for the proposed deferral account based on a 10-year expected useful life of the Level 2 EV chargers acquired by Program participants. FBC states:

> "FBC considers a ten-year amortization period to be an appropriate time frame for amortization as this approximates the expected useful life of the Level 2 EV charger as well as the period over which the benefits of the program will be experienced." [pdf p.15]

11.1 Is FBC confident in the expected 10-year useful life of the Level 2 EV chargers the purchase of which will be incented under the Program? Please provide supporting evidence.

Response:

Please refer to the response to BCUC IR1 7.4.

11.2 Please discuss the consequences (if any) for benefits matching and the Program itself if the average useful life of the Level 2 EV chargers turns out to be less than 10 years.

Response:

The consequences for benefit matching and the Program itself are quite low if the average useful life of the Level 2 EV chargers turns out to be less than 10 years. The Program runs from the time of approval until 2030, which at a maximum is an 8-year lifecycle, so the stations should easily last until the end of the GGRR program (2030). However, the life of the charging stations is not as relevant as the period over which FBC will receive revenues from them, which will exceed 10 years.