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August 23, 2022

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, B.C. V6Z 2N3

Attention: Ms. Sara Hardgrave, Acting Commission Secretary

Dear Ms. Hardgrave:

Re: FortisBC Inc. (FBC)

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

Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 1

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

In the preparation of the responses to BCUC IR1, FBC has made two clarifications to the Program. First, FBC clarifies that the contributions provided under the Program will be the lesser of $2,150 per charger, or an amount that results in total funding not to exceed 75 percent of all installation costs when stacked with other sources of funding such as from the CleanBC and ZEVIP initiatives (BCUC IR1 7.3.1 and 8.4). Second, the Program funding will be available to customers installing chargers in Multi-Unit Residential Buildings (BCUC IR1 8.6).

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

FBC respectfully submits the attached response to BCUC IR No. 1.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC INC.

Original signed:

Diane Roy

Attachments

cc (email only): Registered Parties

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A. ELECTRIC VEHICLE (EV) WORKPLACE AND FLEET CHARGING PROGRAM

1.0 Reference: EV Workplace and Fleet Charging Program

Exhibit B-1, Sections 1.1.1 and 1.1.2, p. 1, Section 2.3.1 p. 7; Greenhouse Gas Reduction (Clean Energy) Regulation (GGRR), Sections 4 and 5

Prescribed Undertaking

On page 1 of the Application, 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.
>
> […]the need to remove barriers associated with EV charging will become increasingly important to give consumers confidence in the value of their EV investment.
>
> […]
>
> The Program is designed to be a prescribed undertaking pursuant to section 18 of the Clean Energy Act (CEA) by meeting the requirements of the undertaking prescribed in section 4 of the *Greenhouse Gas Reduction (Clean Energy) Regulation (GGRR)*.

On page 7 of the Application, FBC states:

> […] the Program will encourage FBC's customers, or persons who may become customers of FBC, to use electricity, instead of other sources of energy that produce more greenhouse gas emissions, by providing funds to these persons to assist in the acquisition, installation, or use of EV charging infrastructure. The Program, therefore, meets the conditions for a prescribed undertaking 4(3)(a)(ii) of the GGRR.

Section 4 (1) of the GGRR definitions states:

"**cost-effective**" means that the present value of the benefits of all of the public utility's undertakings within the classes defined in subsection (3) (a) or (b) 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;

Section 4(3)(a)(ii) of the GGRR states:

(3) Subject to subsection (4), a public utility's undertaking that is in a class defined in one of the following paragraphs is a prescribed undertaking for the purposes of section 18 of the Act:

(a) a program to encourage the public utility's customers, or persons who may become customers of the public utility, to use electricity, instead of other sources of energy that produce more greenhouse gas emissions, by

(ii) providing funds to those persons to assist in the acquisition, installation or use of equipment that uses or affects the use of electricity; […]

Section 4(4) of the GGRR states:

An undertaking is within a class of undertakings defined in paragraph (a) or (b) of subsection (3) only if, at the time the public utility decides to carry out the undertaking, the public utility reasonably expects the undertaking to be cost-effective.

Section 5 of the GGRR describes **Prescribed undertaking — electric vehicle charging stations.**

1.1 Please discuss whether FBC's proposed Program is the first of its kind in British Columbia. Please include in the discussion whether any similar programs have been offered in other jurisdictions in Canada or in the United States.

Response:

While there are other Fleet and Workplace EV-related programs available in British Columbia, none are structured exactly like the one proposed by FBC. For example, BC Hydro offers three fleet electrification programs: EV fleet strategy, Electrical infrastructure upgrades (which provides incentives up to 50 percent of the costs of installing the electrical infrastructure required to support EV charging stations), and EV fleet pilot projects[1]. The Electrical infrastructure upgrades program at BC Hydro is most similar to what is being proposed by FBC, but it does not include any funding toward the charging equipment itself. According to BC Hydro's F2022 to F2026 Electrification

[1] https://www.bchydro.com/powersmart/electric-vehicles/industry/fleets.html.

Plan, these programs are part of BC Hydro's *Commercial Fleet & Mobile Diesel Electrification Program,* and are being delivered pursuant to Section 4 of the GGRR.[2]

Other jurisdictions also offer funding programs for EV related infrastructure costs such as the *EnergIIZE Commercial Vehicles (Energy Infrastructure Incentives for Zero- Emission Commercial Vehicles)* available in California.[3]

1.2 Please discuss whether British Columbia Hydro and Power Authority (BC Hydro) has offered any EV charging programs under Section 4 of the GGRR.

Response:

Please refer to the response to BCUC IR1 1.1.

1.3 Please explain why Level 2 chargers meet the criteria for a prescribed undertaking under Section 4 of the GGRR considering that Section 5 specifically refers to EV charging stations.

Response:

Section 4 and section 5 of the GGRR describe two different classes of prescribed undertakings.

Section 5 of the GGRR applies to EV charging stations that meet the criteria contained in that section. In this Application, FBC is not proposing to carry out any activities within the class of prescribed undertaking described in section 5 of the GGRR. Therefore, the requirements of section 5 of the GGRR are not relevant to this Application.

FBC's Electric Vehicle Workplace and Fleet Charging Program meets the criteria for a prescribed undertaking under section 4 of the GGRR.

1.4 Please confirm, or explain otherwise, that there are no benefit or cost limits for prescribed undertakings under the GGRR.

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2 See Table V-2, https://docs.bcuc.com/Documents/Proceedings/2021/DOC_64328_B-2-3-1-REDACTED-BCH-F23-F25-RRA-Chapter-10-Appendices-U-V-W.pdf

3 https://energiize.org/static/media/EV%20Fast%20Track%20Lane%20Factsheet.39d603ec.pdf

Response:

FBC understands this IR to be asking about section 4 of the GGRR, as this is the section that is relevant to this Application. Under section 4(4) of the GGRR, the test for cost-effectiveness requires that costs be at least matched by benefits on an NPV basis, which does place a limit on the level of costs that can be included.

1.4.1 Please explain whether FBC has any internal targets or limits for the Program under the GGRR.

Response:

FBC has not proposed any limits on the number of applicants for the Program, although FBC has an internal target of 50 applications in year 1 of the Program. FBC set this target through discussions with potential applicants, in which it was determined that year 1 demand for the Program would be over 50 individual site applications and FBC conservatively reduced the target to 50. FBC forecasts the year 1 demand to grow by the growth rate of EV registrations in the FBC service area.

1.5 Please confirm, or explain otherwise, that FBC has developed the Program to encourage persons to invest in EV fleets and/or individuals to drive EVs to work.

Response:

As stated in Section 1.1.1 of the Application, FBC has developed the Program to "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."

1.6 Please discuss whether the Program would still be considered a prescribed undertaking if the charging equipment is not used once installed. Please include whether there are minimum usage limits for the equipment, below which the Program would not be a prescribed undertaking.

Response:

If in the highly unlikely scenario the charging units were not used once installed, the Program would still be considered a prescribed undertaking since FBC reasonably expects the undertaking to be cost-effective at the time it decided to carry out the undertaking.

As stated in section 4(4) of the GGRR: "An undertaking is within a class of undertakings defined in paragraph (a) or (b) of subsection (3) only if, at the time the public utility decides to carry out the undertaking, the public utility reasonably expects the undertaking to be cost-effective." [Emphasis added.]

FBC fully expects that the Program will be cost-effective using the assumptions described in the Application, including the usage amounts upon which the funding amount is based and that are subject to minimum billing provisions.

As explained on page 2 of the Application, 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 on an annual basis, 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.

1.7 Please explain whether the Program would be considered cost effective and a prescribed undertaking under the GGRR if the Net Present Value (NPV) of the Program is less than or equal to zero.

Response:

The definition of cost-effectiveness in the GGRR requires that, at the time the public utility decides to carry out the undertaking, the public utility reasonably expects the present value of the benefits of the undertaking to exceed the costs over a period that ends no later than a specified year, which is defined as 2030[4], and not necessarily the duration of when the incentives are offered as part of the Program (i.e., the time period of 2022 to 2025). As such, it is possible for an undertaking to be cost-effective on an expected basis to 2030, therefore meeting the criteria to be a prescribed undertaking under section 4 of the GGRR, but to have a program NPV that is less than or equal to zero. As demonstrated in Section 2.3.2 of the Application, FBC fully expects the Program to meet the cost-effectiveness test.

[4] Specified year as defined in section 4 of the GGRR is 2030 if the minister does not make a determination with respect to an identified public utility. FBC notes the minister has not currently made a determination.

Please also refer to the response to BCUC IR1 2.1.1 which demonstrates that even under scenarios where the forecast of average chargers per applicant or the number of applicants are reduced, FBC continues to expect the Program to meet the cost-effectiveness test as set out in the GGRR.

2.0 Reference: EV Workplace and Fleet Charging Program

Exhibit B-1, Section 1.1.2, p. 2, Section 2.3.2.4, Table 5, p. 9

Program Applicant Assumptions

On page 2 of the Application, FBC states:

The FBC contribution of $2,150 per Level 2 EV charger has been set such that, based on reasonable assumptions, the Program satisfies the <u>cost-effective</u> test as required under section 4 of the GGRR. These reasonable assumptions are: *[Emphasis added]*

- That each charger will have an annual energy requirement of 2,500 kilowatt-hours (kWh), based on a light- duty EV vehicle driven for 10,000 km annually at 0.25 kWh per km;
- An average of four Level 2 chargers per applicant, based on customer outreach;
- Fifty applicants in year 1 (four chargers per applicant), with annual growth equal to the anticipated growth rate of EV registrations in the FBC service area; and
- The Program will be offered in 2022 through 2025.

On page 9 of the Application, FBC provides the following table:

Table 5: Cost-Effectiveness ($000's)

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Tariff Revenue	Application, Section 2.3.2.1	233	565	1,015	1,581	1,613	1,645	1,678	1,711	1,746
2	Cost of Energy	Application, Section 2.3.2.2	(163)	(388)	(687)	(1,070)	(1,092)	(1,114)	(1,136)	(1,159)	(1,182)
3	Incentive Cost	Application, Table 1-2	(430)	(576)	(740)	(920)	-	-	-	-	-
4	Program Costs	Application, Section 2.3.2.2	(61)	(62)	(63)	(64)	(66)	(67)	(68)	(70)	(71)
5	Total Costs & Benefits	Sum of Lines 1 through 4	(420)	(461)	(475)	(474)	455	464	474	483	493
6	PV Total Costs & Benefits	Line 5 / (1 + Line 8)^Yr	(398)	(413)	(403)	(381)	346	334	323	312	301
7	Sum of PV	Sum of Line 6	21								
8	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

On page 2 of the Application, FBC states:

Although firm commitments have not been made, there is a high level of interest in deploying Level 2 charging infrastructure.

2.1 Given that no firm commitments have been made, please explain how the assumptions for an "average of four Level 2 chargers per applicant" and "Fifty applicants in year 1" were made.

<u>Response:</u>

In 2021, FBC began working with five organizations on an application for federal funding under the Zero Emissions Vehicle Infrastructure Program (ZEVIP). The average number of chargers on the application was four per site across 17 sites. The assumption of 50 applicants in the first year of the program was derived from initial outreach with potential fleet and workplace customers, most with multiple sites.

2.1.1 Please provide a sensitivity analysis and the NPV of Table 5 for the following scenarios with all other factors remaining the same:

- An average of 3 chargers per applicant
- An average of 2 chargers per applicant
- 40 applicants in year 1
- 30 applicants in year 1

Response:

Please see the below tables for the revised NPV of Table 5 under the requested four scenarios with all other factors remaining the same.

With regard to scenarios 1 and 2 (i.e., an average of 3 chargers per applicant and 2 chargers per applicant), as shown in Tables 1 and 2 below, if the number of chargers per applicant is reduced from FBC's forecast of 4 chargers per applicant, the Program will be more cost-effective with a higher NPV over the period from 2022 to 2030. This is because the reduced number of chargers will also decrease the incremental cost of energy under the BC Hydro PPA required to serve the chargers, and together with the decreased overall amount of incentives provided, it outweighs the loss of tariff revenue resulting from reducing the number of chargers per applicant.

With regard to scenarios 3 and 4 (i.e., 40 applicants in year 1 and 30 applicants in year 1), FBC's annual administration costs would be lower if the number of applicants were to decrease substantially below the 2022-2030 forecast amounts. Under scenario 3, based on 40 applicants in year 1 escalated by the forecast growth rate, FBC estimated there would be an overall 20 percent decrease in the number of total applicants to the Program compared to the forecast shown in the Application. As such, FBC would also reduce administration costs by 20 percent under this scenario in response to the decreased number of applicants. Similarly, under scenario 4, based on 30 applicants in year 1 escalated by the forecast growth rate, there would be an overall 40 percent decrease in the number of total applicants to the Program. In this scenario, FBC would then reduce administration costs by 40 percent in response to the decreased number of applicants. As such, given these reduced administration costs, FBC has provided two additional tables below – Tables 5 and 6 – which incorporated the reduced administration costs as a result of a 20 percent and 40 percent decrease in the forecast number of total applicants.

Table 1: An Average of 3 Chargers per Applicant

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Tariff Revenue		184	445	800	1,246	1,271	1,296	1,322	1,348	1,375
2	Cost of Energy		(122)	(291)	(515)	(803)	(819)	(835)	(852)	(869)	(886)
3	Incentive Cost		(323)	(432)	(555)	(690)	-	-	-	-	-
4	Program Costs		(61)	(62)	(63)	(64)	(66)	(67)	(68)	(70)	(71)
5	Total Costs & Benefits	Sum of Lines 1 through 4	(321)	(340)	(334)	(312)	386	394	402	410	418
6	PV Total Costs & Benefits	Line 5 / (1 + Line 8)^Yr	(304)	(305)	(283)	(251)	294	284	274	264	255
7	Sum of PV	Sum of Line 6	228								
8	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

Table 2: An Average of 2 Chargers per Applicant

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Tariff Revenue		134	325	584	910	928	947	966	985	1,005
2	Cost of Energy		(81)	(194)	(344)	(535)	(546)	(557)	(568)	(579)	(591)
3	Incentive Cost		(215)	(288)	(370)	(460)	-	-	-	-	-
4	Program Costs		(61)	(62)	(63)	(64)	(66)	(67)	(68)	(70)	(71)
5	Total Costs & Benefits	Sum of Lines 1 through 4	(223)	(219)	(192)	(150)	317	323	330	336	343
6	PV Total Costs & Benefits	Line 5 / (1 + Line 8)^Yr	(211)	(196)	(163)	(120)	241	233	225	217	210
7	Sum of PV	Sum of Line 6	435								
8	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

Table 3: 40 Applicants in Year 1

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Tariff Revenue		187	454	815	1,270	1,295	1,321	1,348	1,375	1,402
2	Cost of Energy		(130)	(312)	(552)	(860)	(877)	(895)	(912)	(931)	(949)
3	Incentive Cost		(344)	(464)	(593)	(740)	-	-	-	-	-
4	Program Costs		(61)	(62)	(63)	(64)	(66)	(67)	(68)	(70)	(71)
5	Total Costs & Benefits	Sum of Lines 1 through 4	(348)	(384)	(393)	(394)	353	360	367	374	382
6	PV Total Costs & Benefits	Line 5 / (1 + Line 8)^Yr	(330)	(344)	(334)	(317)	268	259	250	242	233
7	Sum of PV	Sum of Line 6	(72)								
8	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

Table 4: 30 Applicants in Year 1

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Tariff Revenue		140	338	605	938	957	976	996	1,016	1,036
2	Cost of Energy		(98)	(232)	(410)	(635)	(648)	(661)	(674)	(688)	(701)
3	Incentive Cost		(258)	(344)	(439)	(542)	-	-	-	-	-
4	Program Costs		(61)	(62)	(63)	(64)	(66)	(67)	(68)	(70)	(71)
5	Total Costs & Benefits	Sum of Lines 1 through 4	(276)	(300)	(306)	(303)	243	248	253	258	264
6	PV Total Costs & Benefits	Line 5 / (1 + Line 8)^Yr	(262)	(269)	(260)	(244)	185	179	173	167	161
7	Sum of PV	Sum of Line 6	(170)								
8	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

Table 5: 40 Applicants in Year 1 with 20% Lower Administration Costs

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Tariff Revenue		187	454	815	1,270	1,295	1,321	1,348	1,375	1,402
2	Cost of Energy		(130)	(312)	(552)	(860)	(877)	(895)	(912)	(931)	(949)
3	Incentive Cost		(344)	(464)	(593)	(740)	-	-	-	-	-
4	Program Costs		(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)
5	Total Costs & Benefits	Sum of Lines 1 through 4	(336)	(372)	(381)	(381)	366	373	380	388	396
6	PV Total Costs & Benefits	Line 5 / (1 + Line 8)^Yr	(318)	(333)	(323)	(306)	278	269	259	251	242
7	Sum of PV	Sum of Line 6	17								
8	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

Table 6: 30 Applicants in Year 1 with 40% Lower Administration Costs

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Tariff Revenue		140	338	605	938	957	976	996	1,016	1,036
2	Cost of Energy		(98)	(232)	(410)	(635)	(648)	(661)	(674)	(688)	(701)
3	Incentive Cost		(258)	(344)	(439)	(542)	-	-	-	-	-
4	Program Costs		(37)	(38)	(38)	(39)	(40)	(41)	(41)	(42)	(43)
5	Total Costs & Benefits	Sum of Lines 1 through 4	(252)	(276)	(281)	(278)	269	275	280	286	292
6	PV Total Costs & Benefits	Line 5 / (1 + Line 8)^Yr	(239)	(247)	(239)	(223)	205	198	191	185	178
7	Sum of PV	Sum of Line 6	9								
8	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

2.2 Please explain whether FBC would extend the Program beyond 2025 if there was more interest than originally forecasted.

Response:

FBC would consider extending the Program on a similar basis to the proposed Program if there is continued interest from customers and the cost-effectiveness test period were extended beyond 2030, which is currently not permitted by the GGRR.

2.2.1 If so, please confirm, or explain otherwise, whether FBC would continue to include these costs in the deferral account.

Response:

As noted in the response to BCUC IR1 2.2, the GGRR does not currently permit an extension to the cost-effectiveness test period beyond 2030. However, if such an extension to the test period were permitted and FBC decided to extend the Program, FBC would determine at that time if recovery of the prescribed undertaking in FBC's revenue requirements through the deferral account requested in this Application continued to be the best approach and would apply for approval of the cost recovery mechanism with the BCUC. FBC also notes that while the Program incentives will not be offered beyond 2025, FBC will continue to incur administration costs until 2030 associated with ensuring that FBC is recovering its minimum billing revenues per incented charging station on an annual basis.

2.3 Please explain whether FBC could extend the Program for a longer time period, to more applicants, and potentially obtain more revenue if the contributions were decreased, for example, from $2,150 to $1,000 per charger. Please provide recalculation of Table 5 to show the NPV and cost effectiveness of these changes.

Response:

Table 1 below shows, if all else is equal, extending the Program to 2030 but with contributions reduced to $1,000 per charger and assuming a higher number of applicants, a similar amount of total contribution results (i.e., $2.666 million per Table 1 of the Application vs. $2.748 million[5] in Table 1 below) but with a higher NPV, therefore meeting the cost-effectiveness test as set out by the GGRR. The higher NPV is primarily due to the increased tariff revenues through RS 21 from more applicants.

Table 1: Cost-Effectiveness Test with Program Extended to 2030 and Contribution of $1,000 per Charger

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Tariff Revenue		107	261	470	734	1,082	1,539	2,133	2,898	3,869
2	Cost of Energy		(75)	(179)	(318)	(497)	(733)	(1,042)	(1,444)	(1,962)	(2,619)
3	Incentive Cost		(92)	(124)	(160)	(200)	(256)	(328)	(416)	(524)	(648)
4	Program Costs		(61)	(62)	(63)	(64)	(131)	(133)	(136)	(139)	(141)
5	Total Costs & Benefits	Sum of Lines 1 through 4	(120)	(104)	(71)	(27)	(37)	36	137	273	460
6	PV Total Costs & Benefits	Line 5 / (1 + Line 8)^Yr	(114)	(94)	(61)	(22)	(28)	26	93	177	281
7	Sum of PV	Sum of Line 6	258								
8	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

However, FBC does not believe the outcome shown in Table 1 is likely. In FBC's experience, it is reasonable to assume that lowering the incentive would reduce the number of applicants and therefore reduce the number chargers that would be installed in FBC's service territory.

For illustrative purposes, FBC has included a scenario with fewer applicants as a result of reducing the incentive to $1,000. As shown in Table 2 below, the Program would still be considered cost-effective (i.e., an NPV of almost zero); however, there would be a lower overall level of contribution (i.e., $1.276 million per Line 5 in Table 2 below vs. $2.666 million per Table 1 of the Application) offered during the Program period from 2022 to 2030 and only nine more total applicants due to the longer time period during which the Program is offered (i.e., 319 per sum of Line 1 in Table 2 below vs. 310 per Table 1 of the Application).

Table 2: Cost-Effectiveness Test with Program Extended to 2030 and Contribution of $1,000 per Charger with Year 1 Applicants Reduced to 11

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	New Applications		11	15	19	24	30	38	48	60	74
2	Number of Chargers per Applicant		4	4	4	4	4	4	4	4	4
3	Incentive Paid per Charger ($000)		1	1	1	1	1	1	1	1	1
4	Program Incentive Costs ($000s)	Line 1 x Line 2 x Line 3	44	60	76	96	120	152	192	240	296
5	Total Program Inentive Costs ($000s)	Sum of Line 4	1,276								
6											
7	Tariff Revenue		51	126	225	352	515	727	1,001	1,353	1,796
8	Cost of Energy		(36)	(86)	(152)	(238)	(349)	(492)	(678)	(916)	(1,216)
9	Incentive Cost	-Line 4	(44)	(60)	(76)	(96)	(120)	(152)	(192)	(240)	(296)
10	Program Costs		(61)	(62)	(63)	(64)	(66)	(67)	(68)	(70)	(71)
11	Total Costs & Benefits ($000s)	Sum of Lines 7 through 10	(89)	(83)	(67)	(47)	(19)	16	63	127	213
12	PV Total Costs & Benefits ($000s)	Line 11 / (1 + Line 14)^Yr	(85)	(74)	(56)	(38)	(15)	11	43	82	130
13	Sum of PV ($000s)	Sum of Line 12	(1)								
14	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

As discussed in the response to BCUC IR1 7.2, FBC has determined that a contribution of $2,150 is an appropriate amount that FBC could offer based on the forecast number of applicants while still keeping the Program cost-effective as per the requirement of the GGRR. FBC notes that, as highlighted in Section 1 of the Application, the recently released and updated CleanBC Roadmap to 2030, the stated target of 90 percent new zero emission vehicles (ZEV) is by 2030. Therefore, in order to better align with this government policy target, FBC believes it is important to accelerate

[5] Sum of Line 3.

the installation of EV charging at workplaces to address the barrier that insufficient EV charging infrastructures poses to the rapid adoption of ZEV. FBC notes that although both approaches (i.e., FBC's proposed program to 2025 with higher incentive per charger vs. the approach of reduced incentive per charger but longer program period) may be cost-effective, FBC's proposed approach provides greater incentive to enable the rapid adoption of ZEVs, consistent with provincial policy direction.

3.0 Reference: EV Workplace and Fleet Charging Program

Exhibit B-1, Section 1.1.3, Table 1, p. 2; Attachment C - FBC Contribution Calculation, "Incremental kWh" tab; FBC Rate Design and Rates for EV Direct Current Fast Charging (DCFC) Service Application (FBC EV DCFC Rates Application), Exhibit B-1, Section 3.4.1, p. 18

Growth Rate

On page 2 of the Application, FBC provides the following table and states:

Table 1: Funding Timeline and Program Expenditure

Line		Reference	2022	2023	2024	2025	Total
1	New Applications		50	67	86	107	310
2	Number of Chargers per Applicant		4	4	4	4	
3	Incentive Paid Per Charger		$ 2,150	$ 2,150	$ 2,150	$ 2,150	
4	Yearly Program Expenditure	Line 1 x Line 2 x Line 3	$ 430,000	$ 576,200	$ 739,600	$ 920,200	2,666,000

> FBC forecasts that it will receive 50 applications in year 2022 and that number will grow by the growth rate of EV registrations in the FBC service area. <u>The growth rate of EV registrations in the FBC service area for 2023-2025 used in Table 1 is also the growth rate used in calculating the FBC EV DCFC station rates approved by BCUC Order G-350-21</u>. *[Emphasis added]*

In the "Incremental kWh" tab in Attachment C - FBC Contribution Calculation to the Application, FBC provides the following growth rate percentages:

	2022	2023	2024	2025
New Applications	50	67	86	107
Growth Rate %		34%	28%	24%
Incremental Energy (kWh)	2,500	2,500	2,500	2,500
Number of Chargers	4	4	4	4

On page 18 of the FBC EV DCFC Rates Application, FBC states:

> FBC has used the more conservative estimate from the Powertech Labs report of compound annual growth rate of 22.8 percent to escalate demand in its analysis.

3.1 Please explain why the same growth rate for DCFC stations is appropriate for Level 2 chargers.

Response:

The growth rate is based on projected EV registrations in the FBC electric service territory and is not specific to DCFC stations. Since DCFC and L2 stations are both primarily used by light-duty vehicles, FBC has assumed that the infrastructure needed to support them will grow linearly with the number of EVs on the road.

3.2 Please clarify why the growth rate percentage shown in FBC's Contribution Calculation is not the same as the 22.8 percent as shown in the DCFC Rates Application.

Response:

For clarity, the 22.8 percent growth rate was used in FBC's initial DCFC rates application dated December 22, 2017 and not its more recent DCFC application filed on September 30, 2020.

The referenced growth rates in Attachment C of the Application use the updated growth rates from FBC's revised and updated DCFC rates application dated September 30, 2020, and approved by Order G-350-21[6]. This update assumed that the growth rate in EV registrations within FBC's service area would be reflected in the growth rate of EV DCFC usage, which was supported by the 2018 and 2019 data from FBC's DCFC network.

3.3 Please confirm, or explain otherwise, the growth rate used to calculate <u>EV registrations in the FBC service area for 2023–2025 in this Application.</u>

Response:

Please refer to the response to BCUC IR1 3.2.

3.3.1 With all other factors remaining the same, please provide a sensitivity analysis, including the NPV of Table 5 by minus five percent and minus ten percent of the growth rate.

[6] Revised and Updated EV DCFC Rates Application dated September 30, 2020, BCUC IR1 8.4 and 8.4.1, and CEC IR1 8.2.

Response:

Please refer to Tables 1 and 2 below for the requested sensitivity analysis of minus five percent and minus ten percent growth rates, with all other factors remaining the same.

If such decreases in the growth rate were to occur, FBC would also reduce the administration costs as discussed in the response to BCUC IR1 2.1.1. Therefore, to provide a more reasonable analysis of the impact of decreased growth rates on the NPV, FBC has also provided Tables 3 and 4 below which reflect a decrease in the administration costs by 5 percent and 10 percent, respectively.

Table 1: Minus 5% Growth Rate

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Tariff Revenue		233	549	977	1,515	1,545	1,576	1,608	1,640	1,672
2	Cost of Energy		(163)	(377)	(661)	(1,026)	(1,046)	(1,067)	(1,088)	(1,110)	(1,132)
3	Incentive Cost		(430)	(547)	(703)	(874)	-	-	-	-	-
4	Program Costs		(61)	(62)	(63)	(64)	(66)	(67)	(68)	(70)	(71)
5	Total Costs & Benefits	Sum of Lines 1 through 4	(420)	(438)	(450)	(449)	433	442	451	460	469
6	PV Total Costs & Benefits	Line 5 / (1 + Line 8)^Yr	(398)	(392)	(382)	(361)	330	318	307	297	287
7	Sum of PV	Sum of Line 6	6								
8	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

Table 2: Minus 10% Growth Rate

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Tariff Revenue		233	533	939	1,448	1,477	1,507	1,537	1,568	1,599
2	Cost of Energy		(163)	(366)	(635)	(981)	(1,000)	(1,020)	(1,041)	(1,062)	(1,083)
3	Incentive Cost		(430)	(519)	(666)	(828)	-	-	-	-	-
4	Program Costs		(61)	(62)	(63)	(64)	(66)	(67)	(68)	(70)	(71)
5	Total Costs & Benefits	Sum of Lines 1 through 4	(420)	(414)	(426)	(425)	411	420	428	437	445
6	PV Total Costs & Benefits	Line 5 / (1 + Line 8)^Yr	(398)	(371)	(361)	(341)	313	302	292	282	272
7	Sum of PV	Sum of Line 6	(10)								
8	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

Table 3: Minus 5% Growth Rate with 5% Reduction in Administration Costs

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Tariff Revenue		233	549	977	1,515	1,545	1,576	1,608	1,640	1,672
2	Cost of Energy		(163)	(377)	(661)	(1,026)	(1,046)	(1,067)	(1,088)	(1,110)	(1,132)
3	Incentive Cost		(430)	(547)	(703)	(874)	-	-	-	-	-
4	Program Costs		(58)	(59)	(60)	(61)	(63)	(64)	(65)	(66)	(68)
5	Total Costs & Benefits	Sum of Lines 1 through 4	(417)	(434)	(447)	(446)	437	445	454	463	473
6	PV Total Costs & Benefits	Line 5 / (1 + Line 8)^Yr	(395)	(389)	(380)	(359)	332	321	310	299	289
7	Sum of PV	Sum of Line 6	28								
8	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

Table 4: Minus 10% Growth Rate with 10% Reduction in Administration Costs

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Tariff Revenue		233	533	939	1,448	1,477	1,507	1,537	1,568	1,599
2	Cost of Energy		(163)	(366)	(635)	(981)	(1,000)	(1,020)	(1,041)	(1,062)	(1,083)
3	Incentive Cost		(430)	(519)	(666)	(828)	-	-	-	-	-
4	Program Costs		(55)	(56)	(57)	(58)	(59)	(60)	(62)	(63)	(64)
5	Total Costs & Benefits	Sum of Lines 1 through 4	(414)	(408)	(420)	(418)	418	426	435	444	452
6	PV Total Costs & Benefits	Line 5 / (1 + Line 8)^Yr	(392)	(365)	(356)	(336)	318	307	297	286	277
7	Sum of PV	Sum of Line 6	35								
8	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

4.0 Reference: EV Workplace and Fleet Charging Program

Exhibit B-1, Section 1.1.3, p. 2, Sections 2.3.2.1 and 2.3.2.2, p. 8; Attachment C - FBC Contribution Calculation, "Elec Rates_RS21" tab; FBC Electric Tariff for Service in the West Kootenay and Okanagan Areas, Rate Schedule 21 - Commercial Service, p. R-21.1

Energy Consumption and Peak Demand

On page 2 of the Application, FBC states:

> The annual energy consumption and peak demand per charger are key assumptions that underpin the derivation of the Program funding amount.

On page 8 of the Application, 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 the based on the sum of the maximum demand from each incented charging station. *[Emphasis added]*
>
> […]
>
> 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 [Long term Electric Resource Plan], which is the incremental cost for FBC to take on new capacity. [*Emphasis added]*

In the "Elec Rates_RS21" tab in Attachment C - FBC Contribution Calculation to the Application, FBC provides the following demand charge and maximum demand factors:

FortisBC INC.
Electricity Revenue

	1	2
Year	**2021**	**2022**
Electricity Rates (RS 21 Commercial Service)		
Demand Charge (per kVA > 45 kVA)	-	11.14
Energy Charge	0.07527	0.07527
Basic charge (monthly)	58.90	58.90
Electricity Inflation factor		3.50%
Maximum Demand		
Maximum Demand per charging station (kVA)	69	69
Less: 45 kVA	45	45
Billing demand > 45 kVA per station	24.00	24.00
Number of Meters	-	50

Page R-21.1 of FBC's Electric Tariff for Service in the West Kootenay and Okanagan Areas[7] provides the following Demand charge for Rate Schedule 21 - Commercial Service:

FORTISBC INC.
ELECTRIC TARIFF

RATE SCHEDULE 21 - COMMERCIAL SERVICE

APPLICABLE: To Commercial Customers whose electrical Demand is generally greater than 40 kW but less than 500 kW and can be supplied through one meter. Where there is more than one service to the same location and they are of the same voltage and phase classification and they were connected prior to January 5, 1977, the electrical energy and Demands registered for such services will be combined and billed at this rate.

MONTHLY RATE: A Demand Charge of:

$12.39 per kW of "Billing Demand" above 40 kW

plus:

4.1 Please explain how FBC will meter the energy consumed at each site. Please include whether the metering will be done from each charger installed or based on the total usage of the site.

Response:

An FBC meter will be installed at the main breaker of the electrical panel for the charger branch circuits. The meter will only measure total usage of all chargers connected to this electrical panel, meaning that the total amount delivered for all downstream installed chargers will be used for the annual consumption requirement, regardless of which ones are most used.

[7] FBC Electric Tariff for Service in the West Kootenay and Okanagan Areas, retrieved on July 18, 2022: https://www.cdn.fortisbc.com/libraries/docs/default-source/about-us-documents/regulatory-affairs-documents/electric-utility/fortisbcelectrictariff.pdf?sfvrsn=62823969_63.

4.1.1 If the metered energy is from the total usage of the site, please explain how FBC will distinguish EV charging and non-EV electricity use.

4.1.1.1 If EV charging cannot be distinguished from non-EV electrical use, please explain how revenue from the EV chargers can be determined.

Response:

The electrical panel that is metered will only feed EV chargers via its branch circuits. It is common to install dedicated electrical panels for the purpose of EV charging.

4.2 Please clarify whether FBC is referring to customer demand or the demand charge in the following sentences: "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 the based on the sum of the maximum demand from each incented charging station."

4.2.1 If FBC is referring to customer demand, please explain why FBC assumes that demand from all incented chargers at a site will be coincident at some point during the billing period.

4.2.2 If FBC is referring to the demand charge, please clarify whether FBC's description is for per charger or per site – "demand revenue is the based on the sum of the maximum demand from each incented charging station".

Response:

FBC is referring to customer electricity demand (as measured in kVA or kW). It is assumed that demand from all incented chargers at a site will be coincident at some point during the billing period based on their intended usage. For employee chargers at a workplace, charging will take place during business hours while employees are utilizing the office space. Employees typically work similar hours, meaning their vehicles will be plugged in to charge at the same time. For light-duty fleet vehicles, it is assumed that at least once in a billing period multiple vehicles will return to base from field work for charging within a typical charge period (6-10 hours).

4.3 Please confirm, or explain otherwise, that the 69 kilovolt-ampere (kVA) (highlighted in the green box above) is the maximum demand per charging station. If so, please explain whether this is an assumption or a capacity limit for the model of charger.

Response:

FBC did not assume that 69 kVA is the maximum demand per charging station (despite the labelling in the "Elec Rates_RS21" tab in Attachment C). The label should state "Estimated Demand with charging stations (kVA)".

FBC assumed the following:

1. The existing service under RS 21 would already have a peak billing demand of at least 45 kVA thus the new chargers would result in incremental peak demand only;
2. Each existing service (i.e., station) would have four new chargers installed; and
3. Each charger is 6 kVA, which is based on an assumption of a Level 2 charger for fleet and workplace connected to a 30 Amp breaker (24 Amp/5 kW output) or 40 Amp breaker (32 Amp/6.7 kW output). Based on a 0.95 power factor, the average between the two outputs is 6.13 kVA and has been rounded to 6 kVA for simplicity.

For four new chargers per station at an estimated 6 kVA each, the total incremental demand due to the new chargers per station would be 24 kVA, resulting in a total peak billing demand at the existing service of 69 kVA (existing 45 kVA plus the incremental 24 kVA).

4.4 Please confirm, or explain otherwise, that the Demand Charge for RS 21 FBC Contribution Calculation (Attachment C) of $11.14/kVA (highlighted in the blue box above) is the equivalent to the demand charge for RS 21 in FBC Electric Tariff of $12.39/kW. If not confirmed, please explain why not.

Response:

Confirmed. Please refer to page R-21.1 of FBC's current electric tariff[8] as referenced in the preamble above which shows the Demand Charge expressed in both $/kW and $/kVA terms, with the $/kVA amount to be $11.14 with a threshold to be 45 kVA.

[8] FBC Electric Tariff: https://www.cdn.fortisbc.com/libraries/docs/default-source/about-us-documents/regulatory-affairs-documents/electric-utility/fortisbcelectrictariff.pdf?sfvrsn=62823969_63.

4.5 Please confirm, or explain otherwise, that “> 45 kVA” (highlighted in blue above) in FBC Contribution Calculation (Attachment C) is the equivalent to “above 40 kW” in FBC Electric Tariff. If not confirmed, please explain why not.

Response:

Confirmed. Please refer to the response to BCUC IR1 4.4.

4.6 Please explain how the coincidence factor of 73.5 percent is consistent with the results of FBC’s most recent Cost of Service Analysis filed with the BCUC.

Response:

One of the determinations made during the cost of service analysis (COSA) is the group coincidence factor for each rate class, which is a measure of the likelihood that individual classes are peaking at the time of the system peak. The COSA filed with the BCUC in 2020 included a group coincidence factor of 73.51 percent when averaged over the course of 12 months. FBC has rounded this value to 73.5 percent for use in the model included with the Application.

4.6.1 Please explain whether FBC is able to distinguish 73.5 percent coincidence factor between EV charging and non-EV electrical uses. If so, please explain why 73.5 percent coincidence peak is appropriate for Level 2 chargers.

Response:

The coincidence factor that is determined during the COSA does not distinguish between any particular load characteristics, including load size, location, or end-use. It is a broad measure, or average, that is applied within the COSA as one part of assigning cost responsibility. While FBC cannot distinguish the coincidence factor between EV chargers and other RS 21 load, it also does not distinguish coincidence factor between any other types of load included in RS 21 when setting rates. In the view of FBC, it is therefore consistent and appropriate to apply the same approach to EV load.

5.0 Reference: EV Workplace and Fleet Charging Program

FBC EV DCFC Rates Decision and Order G-341-21 dated November 25, 2021, p. 12

Carbon Credits

On page 12 of FBC EV DCFC Rates Decision and Order G-341-21, the assumptions of the cost-of-service analysis for RS 96 proposed rates include:

> Carbon Credits: FBC forecast $200/credit for revenue that can be generated under the Renewable and Low Carbon Fuel Requirements Regulation (RLCFRR). The $200/credit is based on the penalty that fuel suppliers are required to pay to become compliant under the RLCFRR*. [Footnote omitted]*

5.1 Please explain whether FBC has considered additional revenues from Low Carbon Fuel Sale credits in its analysis of the Program. If so, please explain whether FBC or Program Applicants will get to retain the credits. If not, please explain why not.

5.1.1 If FBC will retain the credits, please explain where this has been factored into FBC Contribution Calculations in Attachment C.

Response:

FBC has considered that there will be additional revenues accruing to FBC's customers from Low Carbon Fuel Sale credits. However, as the applicants to the Program will own the EV chargers, they will be entitled to the Low Carbon Fuel Sale credits and the associated revenue instead of FBC; therefore, no amounts have been included in the financial analysis.

6.0 Reference: EV Workplace and Fleet Charging Program

Exhibit B-1, Section 1.1.2, p. 2, Section 2.3.2, p. 7, Section 2.3.2.4, Table 5, p. 9, Section 3.5, Table 6, p. 12; Section 3.3, p. 11

Program Length

On page 2 of the Application, FBC states:

> The Program will be offered in 2022 through 2025.

On page 7 of the Application, FBC states:

> […] a "specified year", in relation to an undertaking within a class defined in subsection (3), means either (a) a year determined by the minister with respect to an identified public utility, or (b) if the minister does not make a determination for the purposes of paragraph (a), 2030.
>
> The minister has made no determination of a specified year for FBC for the purpose of section 4 of the GGRR. Therefore, the specified year to be incorporated into the cost effectiveness test is 2030.

On page 9 of the Application, FBC provides the following table:

Table 5: Cost-Effectiveness ($000's)

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Tariff Revenue	Application, Section 2.3.2.1	233	565	1,015	1,581	1,613	1,645	1,678	1,711	1,746
2	Cost of Energy	Application, Section 2.3.2.2	(163)	(388)	(687)	(1,070)	(1,092)	(1,114)	(1,136)	(1,159)	(1,182)
3	Incentive Cost	Application, Table 1-2	(430)	(576)	(740)	(920)	-	-	-	-	-
4	Program Costs	Application, Section 2.3.2.2	(61)	(62)	(63)	(64)	(66)	(67)	(68)	(70)	(71)
5	Total Costs & Benefits	Sum of Lines 1 through 4	(420)	(461)	(475)	(474)	455	464	474	483	493
6	PV Total Costs & Benefits	Line 5 / (1 + Line 8)^Yr	(398)	(413)	(403)	(381)	346	334	323	312	301
7	Sum of PV	Sum of Line 6	21								
8	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

In Table 6 on page 12 of the Application, FBC states:

> The term to capture new additions to the account will be from 2022 to the GGRR specified year of 2030.[9]

6.1 Please confirm, or explain otherwise, that the Program will be offered until 2025.

6.1.1 If confirmed, please clarify whether FBC will continue to add costs from the Program into the deferral account until 2030 or only costs up to 2025 will be included in the deferral account.

6.1.1.1 If the former, please explain why it is appropriate to continue to add costs of the Program to the deferral account after the Program expires in 2025.

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[2] Footnote in Application, GGRR, page 9.

Response:

FBC confirms that the Program will be available to applicants until 2025. As explained in Table 6 of the Application, FBC will continue to capture new additions in the deferral account until 2030. These new additions subsequent to 2025, as shown on Line 4 of Table 5 in the Application, will be FBC's administration costs incurred to run the Program. This is appropriate because FBC will continue to incur administrative costs associated with the Program until 2030 to ensure that each site generates its minimum billing revenues, as discussed in the response to BCUC IR1 10.5.

6.2 Please confirm, or explain otherwise, whether the Program would be considered a prescribed undertaking under the GGRR if the cost effectiveness test was calculated until 2025.

Response:

Confirmed. The test for cost-effectiveness contained in the GGRR specifies that the timeframe to be considered is over a period that ends <u>no later than</u> a specified year, or in the absence of a specified year, 2030. While the Program could still be a prescribed undertaking using 2025 rather than 2030, the Program specifics, such as the funding amount, would need to be revised in order for the cost-effectiveness test to be satisfied. FBC did not calculate cost-effectiveness using 2025 as these customers will provide tariff revenue to FBC beyond 2025 and, indeed, well past the 2030 date currently used in the Program.

On page 11 of the Application, FBC states:

> The deferral account, and the accumulated balance on a net of tax basis within it, would then be transferred to rate base on January 1 of the following year, and amortized over a ten-year period into the rates of all customers. <u>Once transferred to rate base, this account will continue to capture the ongoing incentives and Program costs as additions to the account, on a net of tax basis, and amortize them over a subsequent ten-year period into the rates of all customers</u>. [*Emphasis added*]

6.3 Please confirm, or explain otherwise, whether FBC is proposing to begin amortizing the deferral account for ten years from either 2023, 2025, 2030 or from another date.

Response:

FBC is proposing to commence amortization of the deferral account on January 1, 2023. Additions to the deferral account will be captured annually and will be amortized starting in the subsequent year over 10 years. Additions in each year will be amortized concurrently into rates each year (e.g., the additions in 2023 will be amortized from 2024 to 2033, the additions in 2024 will be amortized from 2025 to 2034, etc.). This is similar to how FBC's existing Demand Side Management (DSM) deferral account works.

6.4 Please confirm, or explain otherwise, whether FBC plans to capture additions to the account concurrently to amortizing the balance into rates.

Response:

Please refer to the response to BCUC IR1 6.3.

6.5 Given that the Program will be offered until 2025 or 2030, please explain why a ten-year amortization period is appropriate.

Response:

FBC's rationale for the 10-year amortization period is set out in the Application, Section 3.4 as follows:

> 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.

FBC considers that these factors are more relevant to the setting of the amortization period than the period over which the Program itself is offered.

7.0 Reference: EV Workplace and Fleet Charging Program

Exhibit B-1, Sections 1.1.1 and 1.1.2, p. 1

Program Specifics

On page 1 of the Application, 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. FBC is proposing to offer a one-time, non-repayable contribution towards the purchase and installation of Level 2 EV chargers for customer fleet and employee workplace charging. The FBC contribution will be $2,150 per Level 2 EV charger and will be capped at seven chargers per site. Applicants will also be required, for each metered charging site, to generate minimum billing revenues per incented charging station on an annual basis.
>
> […]
>
> The Program is designed to be a prescribed undertaking pursuant to section 18 of the *Clean Energy Act* (CEA) by meeting the requirements of the undertaking prescribed in section 4 of the *Greenhouse Gas Reduction (Clean Energy) Regulation* (GGRR).

7.1 Please explain and provide the definition of the following terms used in the Program:

- Organizations
- Customer Fleet
- Employee Workplace
- Workplace charging
- Per site
- Level 2 EV charger

Response:

The following provides general definitions of the referenced words used in the Application:

- "Organizations" includes a company, business, building ownership group, government, society, association, etc.
- "Customer Fleet" means a group of vehicles belonging to an organization.

- “Employee Workplace” means a facility, fleet depot, or location at which employees or contractors of an organization work.
- “Workplace charging” refers to the charging of an electric vehicle that takes place at an Employee Workplace.
- The “seven charges per site” maximum allows organizations with multiple Workplaces an opportunity to receive rebates for up to seven chargers at each of their sites. A site is a particular Employee Workplace.
- Level 2 EV charger: A level 2 electric vehicle charger is powered by a 208V or 240V electric source and supplies AC power to a vehicle, typically at 12-80 amps.

7.2 Please explain how the amount of $2,150 per Level 2 EV charger was determined and what this amount will cover. For example, is this payment only for the equipment or infrastructure to upgrade the facility to handle the Level 2 charger? And since customers have to generate minimum revenue, does this amount include the management and collection of payments?

Response:

$2,150 was what FBC determined to be a reasonable amount it could offer and still be cost effective after establishing the forecast number of applicants, costs to administer the Program, and the energy consumption. There is no restriction on how the payment is used; however, the costs incurred by the customer must be directly related to electrical infrastructure, charging equipment, and associated installation costs. The Program administration costs of $60,000 per year include the costs associated with ensuring FBC is recovering its minimum billing revenues per incented charging station on an annual basis.

7.3 Please explain whether there is a list of eligible models of Level 2 chargers that applicants may choose from. Please provide each model’s current retail price.

Response:

FBC does not intend to provide a list of eligible Level 2 chargers that applicants may choose from. However, the installed charger must be properly certified for use in Canada (e.g., CSA approved).

7.3.1 Please explain how the Program will work if the model selected has a retail price below $2,150.

Response:

The maximum funding from all sources (federal, provincial, municipal, and FBC) is 75 percent of all charger installation costs, with FBC's Program offering up to $2,150 per charger installation. FBC has provided a revised Draft form of Order in Attachment 7.3.1 which includes revisions to clarify the maximum funding per charger installation (also discussed in the response to BCUC IR1 8.4) in addition to clarifying that FBC will include Multi-Unit Residential Buildings (MURB) as discussed in the response to BCUC IR1 8.6.

7.4 Please provide the useful life of the Level 2 chargers.

Response:

FBC estimates the service life of a Level 2 charger as 10 years based on guidance provided by its vendor for internal fleet and workplace chargers, AddEnergie (FLO). AddEnergie is the leader in deployed EV charging hardware across the country, providing Level 2 and Level 3 chargers for Electric Circuit (Hydro Quebec), BC Hydro, Canadian Tire, and more. Furthermore, AddEnergie enables more than 750,000 charging events each month with 60,000 chargers on their FLO branded charging network.

7.5 Please explain how the cap of seven chargers per site was determined and why a cap was included.

Response:

FBC determined seven chargers to be a reasonable limit consistent with the CleanBC Workplace and Fleet streams. The cap also helps ensure the average number of installed chargers across all participants is close to the assumed value (four) that was proven to be cost effective.

7.6 Please explain whether the specifics of $2,150 per Level 2 EV charger and the cap of seven chargers per site were based on any program precedent from another utility's program.

7.6.1 If so, please provide the jurisdiction and a brief summary of the Program.

Response:

No, FBC did not base the incentive of $2,150 per Level 2 EV charger or the cap of seven chargers per site on any program from another utility.

7.7 Considering the Program was designed to be a prescribed undertaking, please provide FBC's view on whether the BCUC would have jurisdiction to decide the amount of the one-time contribution or the charger cap per site.

Response:

FBC's view is that since its Program is within the parameters established by the GGRR, the BCUC's role does not extend to directing FBC to change any of the components of the Program, such as the amount of the one-time contribution or the charger cap per site. Rather, pursuant to section 18 of the CEA, the BCUC must allow FBC to recover the costs of its prescribed undertakings, and not exercise any power that would prevent FBC from carrying out a prescribed undertaking, which includes the Program as FBC designed it.

FBC considers this to be the same issue determined by the BCUC in respect of FEI's NGT Incentives Program, where, in its Decision and Order G-56-13, the BCUC determined that it did not have jurisdiction to change the terms and conditions of FEI's incentive agreements with NGT customers. The BCUC's Decision and Order G-56-13 states at page 16:[10]

> In Exhibit B-6, p. 5 FEI seeks confirmation that where "FEI is employing fuelling service agreements that fall within the parameters established by the GGRR, the Commission's role does not include reviewing whether FEI ought to have negotiated different terms and conditions with NGT customers."
>
> The Commission Panel agrees and confirms the Commission's role does not include reviewing whether FEI ought to have negotiated different terms and conditions for those agreements with NGT customers.

However, if the BCUC determines that FBC's Program as designed does not meet the parameters of the GGRR, then FBC's view is that the BCUC could provide direction on the modifications that would bring the Program in line with those parameters.

[10] Decision and Order G-56-13, April 11, 2013. Online: https://docs.bcuc.com/Documents/Proceedings/2012/DOC_32243_G-161-12_FEI-GGRR-Phases-1-and-2-Determination.pdf.

8.0 Reference: EV Workplace and Fleet Charging Program

Exhibit B-1, Section 1.1.1, p. 1, Section 1.1.2, p. 2; Section 2.2.2, Table 4, p. 5

Commitments to the Program

On page 1 of the Application, 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… The FBC contribution will be $2,150 per Level 2 EV charger and will be capped at seven chargers per site.
>
> […]
>
> The Program will offer contributions that are in addition to funding available through the Zero Emission Vehicle Infrastructure Program (ZEVIP) cost-sharing contribution agreements, and rebates available through the CleanBC Go Electric program.

On page 2 of the Application, 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.

On page 5 of the Application, FBC states with the follow table:

> The CleanBC Go Electric program includes multiple streams for the installation of EV chargers in single-family homes, multi-unit residential buildings, workplaces, and fleets.

Table 4: CleanBC Go Funding Maximums

Stream	Maximum Funding	Eligible Costs
Single-Family Homes	$350	Charging equipment and installation
Workplace	$14,000	Charging equipment and installation, site assessments, design, signage, and network fees
Multi-Unit Residential Buildings	$97,000	EV Ready Plans, infrastructure upgrades, charging equipment, and installation
Fleets	$60,000	Fleet assessments, infrastructure assessments, infrastructure upgrades, and charging equipment and installation

8.1 Please list the five organizations that FBC consulted with and discuss the nature of the organizations and how they are representative of FBC's service area and the potential users of the Program.

Response:

FBC consulted with three municipal entities, one school district, and one First Nations Band as part of the development of this Application. They are:

- Regional District of Central Okanagan (RDCO);
- Regional District of Okanagan-Similkameen (RDOS);
- Town of Oliver;
- School District 23 (SD23); and
- Lower Kootenay Band (LKB).

As part of the development of FBC's application to NRCan ZEVIP for funding for light-duty fleet charging infrastructure, the organizations listed above expressed strong interest in deploying infrastructure to support both light-duty fleet electrification as well as to provide workplace charging for employees. Given this level of interest, the range of organizational size and sophistication of these customers, as well as their broad geographic distribution, FBC considers their input on program design as representative of potential users of the Program.

8.2 Please explain whether FBC will continue with the Program whether the deferral account is approved or not.

Response:

As per section 18 of the CEA, FBC must be allowed to recover the costs incurred with respect to the prescribed undertaking. If the BCUC determines the Program as proposed meets the criteria for a prescribed undertaking but denies the creation of the deferral account, FBC assumes the BCUC would provide direction on the appropriate treatment to recover the costs of the Program. FBC believes the only other alternative is to capture the costs of the Program as flow-through O&M in each year, but this approach would result in volatility in rates as the level of incentives varies each year and would not align with the benefits of the program, i.e., the tariff revenues resulting from the EV charging stations over the life of the stations.

8.3 Given there are no firm commitments, please explain whether the revenue from the chargers will cover the $2,150 contributions or whether the Program costs are expected to be subsidized by other federal, provincial, or municipal government programs and/or recovered from all FBC ratepayers.

Response:

The contribution amount of $2,150 was determined as per the cost-effectiveness test in the GGRR, which includes the incremental revenues to be collected as a result of the proposed Program. As discussed in Section 2.3.2 of the Application, FBC expects to collect sufficient net revenue to recover the costs incurred for the prescribed undertaking. Although FBC intends to work with Program applicants to access additional funding streams from other federal, provincial, and municipal programs, FBC does not expect its own Program costs to be subsidized from these additional funding sources.

8.3.1 If the Program is expected to be, in part, subsidized by non-EV customers, please explain whether FBC has considered implementing a new rate schedule specifically for workplace L2 charging for this Program.

Response:

Please refer to the response to BCUC IR1 11.2 where FBC explains that, over the life of the EV Program, it is expected that the costs directly related to the Program will be offset by the additional tariff revenue received from the Program participants. In other words, the Program is not expected to be subsidized by non-EV customers.

FBC has not considered implementing a new rate specifically for this Program. The load associated with the EV chargers meets the eligibility criteria for the existing RS 21 Commercial rate, and FBC does not have the adequate load-related information that would be required to determine if this specific EV load was distinct enough to warrant segmentation as a rate, or to design such a rate on a cost recovery basis. In addition, the Program has a limited duration that will conclude prior to the time required to research the load characteristics required to design an appropriate rate should they exist.

8.4 Please explain whether an applicant to the Program could still receive funding from the ZEVIP and CleanBC Go Electric program. If so, please explain how FBC will ensure that applicants are not receiving more funds than are required for the equipment and installation.

Response:

An applicant to the Program can stack funding with the provincial and federal government programs up to 75 percent of total project costs. To ensure applicants are not receiving more funds than permitted, FBC will require applicants to declare any additional sources of funding applied for or received, similar to the existing process used for the CleanBC Go Electric programs, including the Home and Workplace streams currently administered by FBC. Please also refer to the response to BCUC IR1 7.3.1.

8.5 Please confirm, or explain otherwise, which stream of CleanBC Go Electric program FBC is referring to in the Application.

Response:

FBC is referring to both the CleanBC Go Electric Fleets program, as well as the workplace stream of the CleanBC Go Electric Home and Workplace Charger Rebate program as potential supplemental funding sources for customers applying to FBC's EV Workplace and Fleet Charging Program.

8.5.1 Please explain how FBC's proposal will complement this stream of the CleanBC Go Electric program.

Response:

The CleanBC Go Electric program offers varying levels of rebates for each stream associated with different aspects of a project such as design, electrical infrastructure, and charging equipment. Total funding from all levels of government (i.e., federal, provincial/territorial and/or municipal) and the FBC Program cannot exceed 75 percent of the total project costs. FBC's proposed Program will complement the government rebates by offering funding for the aspects of a project that are less supported by the provincial and federal programs.

8.6 Please clarify whether FBC has considered expanding the Program for Multi-Unit Residential buildings (MURB). If so, why are MURBs excluded? If not, why not?

Response:

FBC will include MURBs in the Program. FBC believes that the load characteristics of a MURB will be similar to those of electric fleet and workplace charging for the purpose of the Program (i.e., charging will take place on the existing service demand peak).

B. PROGRAM COSTS AND RECOVERY RATES

9.0 Reference: Program Costs and Recovery Rates

Exhibit B-1, Section 1.2, p. 3, Section 2.3.2.2, p. 8, Section 2.3.2.4, Table 5, p. 9, Section 3.5, Table 6, p. 14

Eligible Costs

On page 9 of the Application, FBC provides the following table:

Table 5: Cost-Effectiveness ($000's)

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Tariff Revenue	Application, Section 2.3.2.1	233	565	1,015	1,581	1,613	1,645	1,678	1,711	1,746
2	Cost of Energy	Application, Section 2.3.2.2	(163)	(388)	(687)	(1,070)	(1,092)	(1,114)	(1,136)	(1,159)	(1,182)
3	Incentive Cost	Application, Table 1-2	(430)	(576)	(740)	(920)	-	-	-	-	-
4	Program Costs	Application, Section 2.3.2.2	(61)	(62)	(63)	(64)	(66)	(67)	(68)	(70)	(71)
5	Total Costs & Benefits	Sum of Lines 1 through 4	(420)	(461)	(475)	(474)	455	464	474	483	493
6	PV Total Costs & Benefits	Line 5 / (1 + Line 8)^Yr	(398)	(413)	(403)	(381)	346	334	323	312	301
7	Sum of PV	Sum of Line 6	21								
8	Annual Discount Rate (After-Tax WACC)	Application, Section 2.3.2.3	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%

On page 8 of the Application, FBC states:

> Costs that FBC considers in the evaluation of cost-effectiveness include the cost of the incremental power required to meet the load associated with the Program, administration, and costs related the regulatory process associated with approval of this Application.

On page 14 of the Application, FBC provides Table 6 with Deferral Account Filing Considerations and states:

> Eligible costs include:
>
> - Incentives paid for EV chargers…;
> - Program administration costs …; and
> - BCUC's direct costs and other costs that may be applicable including notice publication, fees for consultants or experts, external legal counsel fees, courier and miscellaneous administrative costs, and participant assistance cost awards incurred in the preparation, filing and regulatory review of the Applications…

9.1 Please confirm the total amount of costs FBC is forecasting to include in the deferral account by the end of the Program in 2025 or 2030.

Response:

Please see the table below for the total amount of costs FBC is forecasting to include in the deferral account by 2030.

Line	Particulars	Reference	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Incentive Cost	Application, Table 1-2	430	576	740	920	-	-	-	-	-
2	Program Costs	Application, Section 2.3.2.2	61	62	63	64	66	67	68	70	71
3	Total Yearly Costs	Sum of Lines 1 through 2	491	638	803	985	66	67	68	70	71
4	Total Costs to Date	Sum of Years to Date Line 3	491	1,129	1,932	**2,917**	2,982	3,049	3,118	3,187	**3,259**

9.2 Please confirm, or explain otherwise, that Table 5 in the preamble above shows all the forecasted costs to be included in the deferral account as opposed to only the $2,150 per charge cost.

9.2.1 If confirmed, please confirm, or explain otherwise, whether the Tariff Revenue from the EV chargers and cost of energy will also be included in the deferral account.

9.2.1.1 If not confirmed, please explain why not.

Response:

FBC confirms Lines 3 and 4 of Table 5 as shown in the preamble above contain all the forecast costs to be included in the deferral account.

The associated Tariff Revenue and the cost of energy will not be included in the deferral account. The Tariff Revenue is generated through FBC's Rate Schedule 21 commercial service. RS 21 rates are not designed to recover EV incentive costs in an FBC deferral account, and as such FBC would be strongly opposed to including this revenue in this deferral account. The cost of energy is a matching expense to FBC's Tariff Revenue and therefore FBC does do not believe it would be appropriate to include these amounts in the requested deferral account.

9.3 Please provide the justification for including all the costs listed on page 14 and whether there is a limit to the costs per the GGRR to be included in the deferral account.

Response:

In considering which costs are eligible to be included as part of the Program, FBC has taken guidance from the definition of costs contained in section 4 of the GGRR. In section 4 of the GGRR, "cost" means "costs the public utility reasonably expects to incur to implement the undertaking, including, without limitation, development and administration costs."

All of the costs listed on page 14 of the Application and as referenced in the preamble above are costs that FBC would expect to incur for the purpose of implementing the Program. It is therefore reasonable that all of the listed costs be included in the deferral account. The amount of costs that can be included in the deferral account, and the Program generally, is limited by the expected tariff revenues resulting from the Program which are also part of the cost-effectiveness test specified by the requirement in the GGRR.

On page 3 of the Application, FBC states:

> FBC seeks approval of a non-rate base deferral account (EV Fleet and Workplace Charging Funding Account), attracting <u>allowance for funds used during construction (AFUDC)</u>, to capture all costs incurred to implement the undertaking, including the funding itself, as well as administration, and regulatory proceeding costs. [Emphasis added]

9.4 Please confirm, or explain otherwise, whether there are any construction costs associated with the EV Program and installation of the chargers.

9.4.1 If confirmed, please explain whether these costs will be included in the deferral account.

9.4.2 If confirmed, please explain whether a contingency is included in the construction costs and if so, how much.

9.4.3 If not confirmed, please explain why it is appropriate to charge AFUDC on the deferral account balance.

<u>Response:</u>

FBC clarifies that there are no construction costs directly incurred or borne by FBC associated with the Program. Applicants to the Program will be responsible for the installation costs associated with their respective infrastructure deployments.

With regard to question posed by this IR, FBC clarifies that a non-rate base AFUDC return is equivalent to a rate base Weighted Average Cost of Capital (WACC) return. While FBC has requested the account be included in rate base the year after the Application is approved, where the forecast rate base will implicitly attract a WACC return from that point forward, FBC requires an equivalent return for the time-period before the account enters rate base. This return is required given the deferral account is being financed by FBC using a mix of debt and equity, no different than any other cash-based deferral account or plant under construction, and therefore, FBC requires a return of the associated interest costs and a return on the equity costs used to finance the deferral account. Whether an account is included in rate base or non-rate base should not change the underlying return attributed to the deferral.

9.5 Please provide the rate used to charge AFUDC.

Response:

As clarified in the response to BCUC IR1 9.4, an AFUDC return is equivalent to a rate base WACC return (after-tax). FBC's current approved after-tax WACC is 5.62 percent[11].

[11] FBC 2022 Annual Review Decision and Order G-374-21.

10.0 Reference: Program Costs and Recovery Rates

Exhibit B-1, Section 1.1.1, p. 1, Section 1.1.3, p. 2

Minimum Billing

On page 1 of the Application, FBC states:

> […] Applicants will also be required, for each metered charging site, to generate <u>minimum billing revenues</u> per incented charging station on an annual basis. *[Emphasis added]*

On page 2 of the Application, FBC 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.

10.1 Please clarify whether “minimum billing revenues” mean that the eligible Level 2 chargers will have a payment system installed for the Organization (or workplace) to bill EV users.

10.1.1 If so, please clarify whether eligible Level 2 chargers will be available to the general public.

10.1.2 If not, please clarify whether FBC is receiving the “minimum billing revenues” from the Organization (or workplace) customer. How will FBC enforce this requirement under the general terms and conditions of its tariff and/or rate schedules?

<u>Response:</u>

Minimum billing revenues means revenues received by FBC from Program participants for the provision of service related to the EV chargers and billed under RS 21. Organizations are free to choose whether, and how, to bill for use of the installed chargers.

The proposed Program is intended to support Level 2 charger deployments for fleets and workplaces (i.e., employees). It is possible, however, that organizations may also choose to make their chargers available for use by the general public.

10.2 Please clarify whether the revenue generated from the Level 2 chargers will go to FBC or to the Organization which installs the chargers.

Response:

Please refer to the response to BCUC IR1 10.1.

10.3 Please explain whether the minimum billing revenues are gross billed amounts or net of any payments including any uncollected amounts.

10.3.1 Please explain whether a shortfall in the minimum billing revenue would be based on the gross or net amount.

Response:

FBC assumes "uncollected amounts" refers to the amount short of the minimum billing revenue, not amounts resulting from customers not paying their bills. Customers who have not paid their bills (i.e., uncollected) will be handled through the same collection processes as other customers.

The minimum billing revenue will be based on the gross billed amount. To be clear, the shortfall to be recovered annually will be the minimum billing revenue per year less any revenue already recovered during the year (but cumulatively less than or equal to the minimum billing revenue amount). FBC will determine the shortfall for each customer annually.

10.4 Please confirm, or explain otherwise, whether this minimum billing revenue is expected to assist in the funding or payment of the Program. For example, do beneficiaries of the chargers (the Organizations) have any commitments to pay back FBC via revenue from electricity rates?

10.4.1 If not confirmed, please explain the reason for the minimum billing revenue and one-time charge for the shortfall.

Response:

The minimum revenue per charger requirement and the associated annual shortfall recovery is designed to ensure that the Program is cost-effective regardless of the level of usage through the charger that received a contribution from the Program.

Please also refer to the response to BCUC IR1 10.1.

10.5 Please explain whether this one-time charge for the shortfall would be in place for the duration of the Program (until 2025) or for as long as the chargers are in use at the site.

Response:

The annual shortfall recovery will apply until 2030 since this is the period upon which expected revenues from the Program are incorporated into the cost-effectiveness test and used to derive the funding amount.

11.0 Reference: Program Costs and Recovery Rates

Exhibit B-1, Section 1.2, p. 3, Sections 3 and 3.1, p. 10, Section 3.2, p. 11

Recovery Rates

On page 3 of the Application, FBC states:

> FBC seeks approval of a non-rate base deferral account (EV Fleet and Workplace Charging Funding Account)…

On page 10 of the Application, FBC states:

> […] FBC is seeking approval of the rate recovery mechanism described below rather than specific year-to-year expenditure amounts allocated under the prescribed undertaking. The reasons for this approach are that the prescribed undertaking is optional for a public utility, and there is some latitude within the scope of this prescribed undertaking to move expenditures between years and among categories. This flexibility is essential, as the Program is a new offering, and FBC needs to be able to respond to the changes and developments in the market.
>
> As a result, FBC is only seeking approval of the regulatory accounting and rate recovery treatment for these expenditures.
>
> […] the legal framework for this Application is section 18 (2) of the CEA, which requires the BCUC to "set rates that allow the public utility to collect sufficient revenue in each fiscal year to enable it to recover its costs incurred with respect to the prescribed undertaking".
>
> […]
>
> 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.

On page 11 of the Application, FBC states:

> […] FBC believes that it is appropriate to recover the costs of the EV Program from all customers, because <u>all customers will benefit directly from the additional revenue derived from the EV Program load</u> as well as the societal benefit of a reduction in GHG emissions and air contaminants. [*Emphasis added]*

11.1 Please clarify whether FBC is seeking approval of the rate recovery method in this Application or at a later date.

Response:

FBC is seeking approval of the regulatory accounting and rate recovery treatment for the expenditures related to the Program as part of the current Application.

11.2 If approval is being sought in this Application, , please explain how all customers will benefit directly from the additional revenue derived from the EV Program Load.

11.2.1 Please explain whether any revenues generated from the Level 2 chargers will assist in the recovery of costs of the EV Program.

Response:

FBC notes the requirement of the GGRR is that the program be cost-effective in terms of the present value from the beginning of the program to 2030, i.e., NPV equal to zero at the minimum. There is no requirement that all customers will be benefiting from the program with additional revenue. Nevertheless, over the life of the EV Program, FBC expects that the costs directly related to the Program will be offset by the incremental tariff revenue received from the Program participants for the use of their EV chargers. While the early years of the Program will require support from other customers, no additional FBC funding will be provided after 2025 and the incremental load and revenues resulting from the Program will be embedded and will persist into the future. Additional load on the FBC system that is added with little or no capital expenditures from FBC better utilizes the system and provides rate mitigation which is a benefit to all customers.

For clarity, the incremental load due to the use of the EV chargers enabled by the proposed Program will result in incremental tariff revenue under FBC's RS 21 commercial service and will be included in FBC's annual revenue requirement. This incremental revenue will continue as long as these EV chargers remain in use and will serve to offset the amortization of the deferral account. As the incentives offered by the proposed Program end in 2025, once the deferral account is fully amortized, the incremental revenue from the EV chargers will be a benefit to all customers with no more associated costs from the deferral account.

11.3 If approval is being sought in this Application, given that not all of FBC's customers own EVs, please explain the fairness and rationale for recovering all costs of the EV Program from all of FBC's customers rather than only the users of the chargers or applicants in the Program.

Response:

FBC is not proposing to recover all costs of the EV Program from all FBC customers, although this is not prohibited by the GGRR as long as the EV Program is determined to meet the requirement of a prescribed undertaking. Consistent with the GGRR, FBC fully expects that by 2030, costs directly related to the EV Program will be recovered from Program participants through the incremental tariff revenues. As such, until the incremental tariff revenues overtime completely offset it, the costs related to the deferral account specific to the undertaking will have to be recovered from all of FBC's customers.

11.4 If approval is sought at a later date, please explain when this rate recovery method will be reviewed.

Response:

Please refer to the response to BCUC IR1 11.1.

12.0 Reference: Program Costs and Recovery Rates

Exhibit B-1, Section 1.2, p. 3, Section 3, p. 10, Section 3.3, p. 11

Amortization Period

On page 3 of the Application, FBC states:

> FBC seeks approval of a non-rate base deferral account (EV Fleet and Workplace Charging Funding Account) …

On page 10 of the Application, FBC states:

> FBC is seeking approval of the rate recovery mechanism described below...

On page 11 of the Application, FBC states:

> […] The deferral account, and the accumulated balance on a net of tax basis within it, would then be transferred to rate base on January 1 of the following year, and amortized over a ten-year period into the rates of all customers. <u>Once transferred to rate base, this account will continue to capture the ongoing incentives and Program costs as additions to the account, on a net of tax basis, and amortize them over a subsequent ten-year period into the rates of all customers</u>. *[Emphasis added]*

12.1 Please clarify whether FBC is seeking approval of the deferral account and a 10-year amortization period.

<u>Response:</u>

Confirmed. FBC is seeking approval of the deferral account treatment and a 10-year amortization period as described in the Application and Draft Order included as Appendix A.

12.2 If approval is being sought in this Application, please confirm, or explain otherwise, whether FBC is proposing to begin amortizing the deferral account for ten years from either 2023, 2025, 2030 or from another date.

<u>Response:</u>

FBC is proposing to begin amortizing the rate-base deferral account beginning in 2023. This is reflected in items 2 and 3 of the Draft Order (attached as Appendix A to the Application), as follows:

> 2. FBC is approved to transfer the EV Fleet and Workplace Charging Funding Account, and the accumulated balance on a net of tax basis within it, to rate base

on January 1 of 2023, and amortized over a ten-year period into the rates of all customers.

3. Once transferred to rate base, FBC is approved to continue to capture in the EV Fleet and Workplace Charging Funding Account the ongoing incentives and Program costs in the accounts, on a net of tax basis, and amortize them over a subsequent ten-year period into the rates of all customers.

Please also refer to the response to BCUC IR1 6.3.

12.3 If approval is being sought in this Application, please confirm, or explain otherwise, whether FBC plans to capture additions to the account concurrently to amortizing the balance into rates.

Response:

Please refer to the response to BCUC IR1 6.3.

12.4 If approval is being sought in this Application, given that the Program will be offered until 2025 or 2030, please explain why a ten-year amortization period is appropriate.

Response:

Please refer to the response to BCUC IR1 6.5.

12.5 If approval will be sought at a later date, please explain the proposed length of the amortization period and the timing of such approval.

Response:

Please refer to the response to BCUC IR1 6.5 for an explanation of the proposed amortization period. FBC is seeking approval of the deferral account as part of this Application and anticipates a decision on the Application in the latter half of 2022.

13.0 Reference: Program Costs and Recovery Rates

Exhibit B-1, Section 1.2, p. 3, Section 3.2, p. 10, Section 3.3, p. 11, Section 2.4, p. 9

Rate Base

On page 3 of the Application, FBC states:

> FBC seeks approval of a non-rate base deferral account (EV Fleet and Workplace Charging Funding Account), attracting allowance for funds used during construction (AFUDC), to capture all costs incurred to implement the undertaking*… [Emphasis added]*

On page 10 of the Application, FBC states:

> FBC's proposed treatment for all expenditures under this prescribed undertaking is to include them in a rate base deferral account and amortize the expenditures in delivery rates of all customers over a ten-year period. […] *[Emphasis added]*

On page 11 of the Application, FBC states:

> […] FBC proposes that all costs, including the regulatory proceeding costs, related to the prescribed undertaking be captured in a non-rate base deferral account, named the "EV Fleet and Workplace Charging Funding Account", attracting AFUDC until the end of the year in which this application is approved. The deferral account, and the accumulated balance on a net of tax basis within it, would then be transferred to rate base on January 1 of the following year, and amortized over a ten-year period into the rates of all customers. Once transferred to rate base, this account will continue to capture the ongoing incentives and Program costs as additions to the account, on a net of tax basis, and amortize them over a subsequent ten-year period into the rates of all customers. […] *[Emphasis added]*

On page 9 of the Application, FBC states:

> […] FBC intends to provide information on the Program to the BCUC as part of its Annual Reviews for Rates. […]

13.1 Please confirm, or explain otherwise, whether FBC is proposing a non-rate base deferral account that transfers into a rate base deferral account.

13.1.1 If confirmed, please explain why FBC is proposing to change the deferral account from non-rate base to rate base following the installation of the charger.

13.1.2 If confirmed, please explain whether the deferral account would continue to attract AFDUC or another rate would be used.

13.1.3 If not confirmed, please clarify whether FBC is proposing a non-rate base deferral account or a rate base deferral account.

Response:

Confirmed. Once the non-rate base deferral account is transferred to the rate base deferral account the non-rate base deferral account would no longer be used (i.e., it would be discontinued) and would therefore no longer attract AFUDC. All future activity (i.e., additions, deferral amortization) would be forecast in the rate base deferral account when FBC applies to set its rates and would attract a rate base (i.e., Weighted Average Cost of Capital or WACC) return. FBC notes that the AFUDC rate is equal to the after-tax WACC.

FBC proposes to initially use a non-rate base deferral account because of timing. FBC will incur actual costs in this deferral account prior to the account's inclusion in rate base. Please also refer to the response to BCUC IR1 9.4.

13.2 Please confirm, or explain otherwise, that FBC will not own the Level 2 chargers once they are installed.

13.2.1 If confirmed, please explain why rate base treatment of the deferral account, if sought, is appropriate.

Response:

Confirmed, FBC will not own the Level 2 chargers once they are installed.

While FBC does not own the assets, pursuant to the *Clean Energy Act*, cost recovery is assured as discussed in Section 2.1 of the Application. FBC considers that a deferral mechanism proposed by FBC best aligns the amortization of the incentive with the enduring benefits of increased load which aligns with the life of the assets for which FBC will have provided the incentive.

13.3 Please confirm, or explain otherwise, whether the accumulated balances in that deferral account will be reviewed by the BCUC on an annual basis as part of the Annual Review or in an annual compliance filing as part of FBC's annual report to the BCUC.

Response:

The annual changes (i.e., additions, amortization) to the deferral account balance will be included as part of FBC's financial schedules which are filed as part of FBC's Annual Reviews (or revenue requirement application depending on future rate setting methods). The deferral account will therefore be reviewed by the BCUC as part of that process, consistent with all of FBC's other approved deferral accounts. FBC notes that the deferral account would also be included in its Annual Report to the BCUC and could therefore also be reviewed at that time by BCUC staff.

13.4 Please confirm what, if any, responsibilities FBC has with respect to maintenance and operation of these Level 2 chargers once they are installed. Please confirm whether FBC proposes to capture such costs, if any, in the deferral account.

Response:

All chargers incented under the proposed Program will remain the property and responsibility of the funding applicant. As such, FBC has not included any costs related to maintenance and operation of the chargers in the proposed deferral account.

Attachment 7.3.1

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Utilities Commission

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ORDER NUMBER
G-xx-xx

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

FortisBC Inc.
Application for Approval of the Electric Vehicle Fleet Charging Funding Deferral Account
BEFORE:
[Panel Chair]
Commissioner
Commissioner

on Date

ORDER

WHEREAS:

A. On May 13, 2022, FortisBC Inc. (FBC) filed an Application with the British Columbia Utilities Commission (BCUC), pursuant to sections 59 to 61 of the *Utilities Commission Act* (UCA), for the approval of a new non-rate base deferral account for the Electric Vehicle (EV) Fleet Charging Funding Program (Program) entitled EV Fleet and Workplace Charging Funding Account, to implement FBC's EV Fleet Charging Program (Program), pursuant to section 18 of the *Clean Energy Act*, as a prescribed undertaking under the Province's *Greenhouse Gas Reduction (Clean Energy) Regulation* (GGRR) (Application);

B. The Program will provide funding to organizations to assist in the acquisition and installation of EV charging infrastructure to encourage the use of electric vehicles to reduce greenhouse gas emissions. FBC proposes a one-time, non-repayable contribution of up to $2,150 per Level 2 EV charger, capped at seven chargers per site;

C. The Application seeks approval of a non-rate base deferral account, entitled the EV Fleet and Workplace Charging Funding Account, attracting Allowance for Funds Used During Construction (AFUDC) until the end of the year in which this Application is approved. The EV Fleet and Workplace Charging Funding Account will capture all costs incurred to implement the Program, including development, administration, and Application costs. FBC proposes that the EV Fleet and Workplace Charging Funding Account, and the accumulated balance on a net of tax basis within it, would be transferred to rate base on January 1 of the year following approval, and be amortized over a ten-year period into the rates of all customers. Once transferred to rate base, this account will continue to capture the ongoing incentives and Program costs as additions to the accounts, on a net of tax basis, and amortize them over a subsequent ten-year period into the rates of all customers;

D. By Order G-152-22, the BCUC established a regulatory timetable for review of the Application.

Deleted: xx

E. The BCUC has reviewed the Application and considers that approval is warranted.

NOW THEREFORE pursuant to sections 59 to 61 of the UCA, the BCUC orders as follows:

1. FBC is approved to establish a new non-rate base deferral account, entitled the EV Fleet and Workplace Charging Funding Account, attracting AFUDC, to capture all costs incurred to implement FBC's EV Fleet Charging Program as a prescribed undertaking under the GGRR, including development, administration, and Application costs.
2. FBC is approved to transfer the EV Fleet and Workplace Charging Funding Account, and the accumulated balance on a net of tax basis within it, to rate base on January 1 of 2023, and amortized over a ten-year period into the rates of all customers.
3. Once transferred to rate base, FBC is approved to continue to capture in the EV Fleet and Workplace Charging Funding Account the ongoing incentives and Program costs in the accounts, on a net of tax basis, and amortize them over a subsequent ten-year period into the rates of all customers.

DATED at the City of Vancouver, in the Province of British Columbia, this (XX) day of (Month Year).

BY ORDER

(X. X. last name)
Commissioner