



Diane Roy
Vice President, Regulatory Affairs

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

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

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

February 25, 2021

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

Attention: Mr. Patrick Wruck, Commission Secretary

Dear Mr. Wruck:

Re: FortisBC Inc. (FBC)

Project No. 1598940

**Application for Approval of Rate Design and Rates for Electric Vehicle (EV)
Direct Current Fast Charging (DCFC) Service – Revised Application dated
September 30, 2020 (Revised Application)**

**Response to the British Columbia Utilities Commission (BCUC) Information
Request (IR) No. 2**

On September 30, 2020, FBC filed the Revised Application referenced above. In accordance with BCUC Order G-33-21 setting out a further Regulatory Timetable for the review of the Revised Application, FBC respectfully submits the attached response to BCUC IR No. 2.

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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1 **A. FBC EV STATIONS AND THE GGRR**

2 **18.0 Reference: OVERVIEW OF GGRR CRITERIA**

3 **Exhibit B-5 (Revised Application), pp. 22–23; Exhibit B-7, BCUC IR**
4 **3.8.1, 3.8.4, 16.2**

5 **Limited Municipality Site Limit Test**

6 In response to British Columbia Utilities Commission (BCUC) Information Request (IR)
7 3.8.2, FortisBC Inc. (FBC) stated:

8 Generally, the decision date in section 5(2)(b) of the GGRR [*Greenhouse Gas*
9 *Reduction (Clean Energy) Regulation*] will only be relevant if there is reason to
10 believe that a station will not be constructed before December 31, 2025 or will
11 not meet the limited municipality requirement. If the station will not meet these
12 requirements, the public utility may nonetheless provide evidence to establish
13 that, on the date it made its decision to construct or purchase the station, it
14 reasonably expected it would meet the requirements.

15 [...]

16 As all of FBC’s currently-planned charging stations will be in operation well
17 before December 31, 2025, and meet the limited municipality requirement, the
18 date of FBC’s decision to construct or purchase the charging stations is
19 irrelevant. However, as noted in the response to BCUC IR1 3.8, FBC considers
20 the “date the public utility decides to construct or purchase an eligible charging
21 station” is the date that a financial commitment to purchase, construct or install
22 the required charging station infrastructure has been made. While possible that a
23 decision could have been made earlier, an executed and dated contract or letter
24 of intent clearly demonstrates that a decision was made by the date of the
25 contract or letter of intent. The reasonableness of the expectation that the station
26 will come into operation by December 31, 2025 and meet the limited municipality
27 requirement, if applicable, can then be determined by reference to whether there
28 is enough time from the decision date to construct or purchase the charging
29 station, and reasonably available information at that time about the location of
30 charging stations.

31 18.1 Please discuss whether a contract or letter of intent making the financial
32 commitment to purchase, construct or install the electric vehicle (EV) charging
33 station infrastructure must include the specific site where the infrastructure will be
34 installed. Is it possible to have a contract or letter of intent to acquire charging
35 station infrastructure without determining the location where the infrastructure will
36 be installed or for the location to change after the execution of the contract or
37 letter of intent?

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1 18.1.1 If it is possible to have a contract or letter of intent to acquire EV
2 charging station infrastructure without determining the location of the
3 infrastructure installation or for the location to change after the
4 execution of the contract or letter of intent, please discuss how the date
5 of the contract or letter of intent can be considered “the date the public
6 utility decides to construct or purchase an eligible charging station” as
7 set out in section 5(2)(b) of the GGRR.

8

9 **Response:**

10 FBC expects that the contract or letter of intent will include information on the location of the site
11 or sites of the eligible charging station(s). FBC is not, however, limited in the evidence that it
12 can file to demonstrate how an eligible charging station meets the criteria of section 5 of the
13 GGRR. If the contract or letter of intent did not include the requisite information regarding the
14 location of the station, or other information, FBC could file other evidence to demonstrate how it
15 meets the GGRR requirements.

16 In the case where the location changed after the original contract or letter of intent was
17 executed, such that a different municipal site limit was applicable, FEI would show that, at the
18 time it changed the site location, FBC reasonably expected that the station would both come
19 into operation by December 31, 2025 and not exceed the site limit for the municipality on that
20 date.

21

22

23

24 In response to BCUC IR 3.8.4, FBC stated:

25 An eligible charging station is required to be in operation to be a prescribed
26 undertaking, as section 5(2)(a) of the GGRR requires that the public utility must
27 construct and operate, or purchase and operate, the eligible charging station.
28 However, this does not prevent the BCUC from considering on a forecast basis
29 whether, on a balance of probabilities, a charging station will be a prescribed
30 undertaking. [...]

31 18.2 Under a scenario, where on a balance of probabilities, the BCUC determines on
32 a forecast basis that an EV charging station meets the criteria to be a prescribed
33 undertaking, but subsequently when the station becomes operational, it does not
34 actually meet the criteria, please discuss whether this charging station would be
35 excluded from FBC’s rate base and its associated costs and revenues would be
36 excluded from recovery from or refund to ratepayers. Why or why not?

37 18.2.1 If so, please discuss whether FBC would need further BCUC approval
38 to have the EV charging station become a regulated asset.

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1 18.2.2 If not, please discuss whether it would be in ratepayers' interest for the
2 BCUC to wait until an EV charging station comes into operation before
3 it determines whether the station is a prescribed undertaking under the
4 GGRR. Why or why not?
5

6 **Response:**

7 FBC does not foresee a situation in which an EV charging station that it intends to construct and
8 operate as an eligible charging station would fail to meet the criteria to qualify as a prescribed
9 undertaking. However, if this were to occur, and if FBC could not remedy the situation to make
10 the eligible charging station meet the requirements of the GGRR, then:

- 11 • the charging station would be excluded from FBC's rate base and its associated costs
12 and revenues would be excluded from recovery from or refund to ratepayers; and
- 13 • further approval from the BCUC would be required for the charging station to be included
14 in FBC's rate base and its associated costs and revenues included for recovery from or
15 refund to ratepayers.

16
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19 18.3 Please discuss whether the BCUC can make a determination that an EV
20 charging station meets the criteria to be a prescribed undertaking and direct that
21 the station be excluded from rate base and its associated costs and revenues be
22 excluded from recovery from or refund to ratepayers in the event that the station
23 does not meet the criteria to be a prescribed undertaking when the station
24 becomes operational. As part of the response, please discuss the implications of
25 this approach to FBC and its ratepayers and shareholders, respectively.

26
27 **Response:**

28 FBC's intention is to only operate DCFC charging stations that meet the requirements of the
29 GGRR and does not believe it can reasonably be expected that any of its DCFC charging
30 stations would cease to meet the criteria of the GGRR when it became operational. As such, if
31 the BCUC were to make the determination described in the information request, FBC does not
32 believe it would have any implications to FBC, its ratepayers, or its shareholder.

33 Further, FBC does not believe it would be necessary to make the determination described in the
34 information request:

- 35 • In Order G-9-18, the BCUC already directed FBC "to separately track and account for all
36 costs associated with the DCFC stations and exclude all such costs from its utility rate
37 base until the Commission directs otherwise."
- 38 • FBC does not consider that the BCUC's approval of the rate for DCFC charging stations
39 and other relief sought in the Application would include or imply any approval to recover
40 costs of DCFC charging stations that are not prescribed undertakings; and

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- 1 • The BCUC will have the opportunity in FBC's annual reviews to exclude any charging
2 stations that are not prescribed undertakings.

3
4 Based on the above, if FBC identified any station that did not meet the criteria for prescribed
5 undertakings when they become operational, FBC would remedy the situation by bringing the
6 station within the requirements of the GGRR, exclude the station from rate base, or otherwise
7 seek approval or direction from the BCUC in its Annual Review.

8
9

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11

In response to BCUC IR 16.2, FBC stated:

12 As part of its Annual Review of rates, FBC intends to provide sufficient
13 information for the BCUC to assess whether any future stations not included in its
14 Revised Application meet the criteria to be a prescribed undertaking under the
15 GGRR. FBC would also provide information regarding the actual or planned
16 addition of DCFC [direct current fast charging] stations in the period since the
17 previous review. FBC is not proposing to advise the BCUC of each decision to
18 add a station or site, but rather will provide confirmation in the Annual Review
19 that costs associated with any additions since the previous review are eligible to
20 be included in rate base once in operation.

21 18.4 Please confirm, or explain otherwise, that FBC plans to provide sufficient
22 information in its Annual Review application for the BCUC to assess whether
23 stations that have come into service since the previous review have met the
24 criteria under the GGRR to be prescribed undertakings.

25 18.4.1 If confirmed, please provide the rationale for the proposed approach.

26 18.4.2 If not confirmed, please propose a regulatory process for the BCUC to
27 review whether a station that has come into service has met the criteria
28 to be prescribed undertaking and provide the rationale for the proposed
29 process.

30
31

Response:

32 Confirmed. At each annual review, the Company will present its plans regarding any future
33 stations being contemplated, and also a review of additions since the later of this proceeding or
34 last annual review, including information sufficient to demonstrate that they qualify as prescribed
35 undertakings. The rationale for such an approach is to provide sufficient evidence to enable the
36 BCUC to approve the inclusion of the assets in rate base and recovery of related costs in rates.

37
38

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1
2 On pages 22 to 23 of the Revised Application, FBC states:

3 As described above, over the term of the MRP, FBC will forecast costs and
4 revenues associated with EV charging in each Annual Review. The costs and
5 revenues associated with the provision of EV charging will be afforded flow-
6 through treatment. This means that any variances between forecast and actual
7 costs associated with the EV charging service will be accounted for in FBC's
8 existing Flow-through deferral account. This is consistent with the treatment
9 approved by the BCUC in its Decision attached to Orders G-165-20 and G-166-
10 20 in which at page 73 the Panel stated,

11 Subject to approval by the BCUC for inclusion of FBC's EV charging
12 stations in rate base, the Panel approves FBC's request to forecast costs
13 associated with EV charging stations and to record the related forecast
14 cost of service variances in the Flow-through deferral account. The Panel
15 also approves flow-through treatment for revenues related to EV
16 Charging stations.

17 18.5 Under a scenario where the costs and revenues associated with FBC's EV
18 charging stations were included in the revenue requirement on a forecast basis
19 and then those stations were subsequently found to not meet the criteria to be a
20 prescribed undertaking, please discuss the transactions necessary to "correct"
21 the revenue requirement by removing these costs and revenues in the
22 subsequent year revenue requirement. As part of the response, please discuss
23 how the Flow-through deferral account would, or would not, be able to
24 accommodate these transactions.

25
26 **Response:**

27 The Flow-through deferral account will be used to capture all the variances between forecast
28 and actual cost/revenue associated with the EV stations through the MRP term. In the unlikely
29 scenario that an EV station included in FBC's revenue requirement was subsequently found not
30 to meet the criteria to be a prescribed undertaking, the differences between the forecast of
31 cost/revenue (non-zero) and actual cost/revenue (zero¹) will be accounted for in the Flow-
32 through deferral account. When determining FBC's revenue requirement at each annual review,
33 the opening balance of the Flow-through deferral account will be trued-up to the actual prior
34 year balance, similar to all other deferral account balances, resulting in the actual variances
35 from prior years being returned to/recovered from customers through amortization of the
36 deferral account into rates.

37
38

¹ Zero because, if an EV station is determined to not be a prescribed undertaking, all related cost and revenue are set to equal zero for the regulated utility.



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1
2 18.5.1 If the Flow-through deferral account would not be able to accommodate
3 these transactions, please discuss whether a separate deferral account
4 could be established, or another mechanism put in place, to
5 accommodate these transactions.

6
7 **Response:**

8 Please refer to the response to BCUC IR2 18.5. While a separate deferral account could be
9 established, the Flow-through deferral account can accommodate these transactions, so a
10 separate deferral account is not necessary.

11
12
13
14 18.6 Please confirm, or explain otherwise, that FBC is proposing to utilize the Flow-
15 through deferral account to capture all forecast costs and revenues associated
16 with EV charging stations in subsequent Annual Reviews, including the variance
17 treatment for these costs and revenues. Please discuss whether a separate
18 deferral account would be more appropriate.

19
20 **Response:**

21 Not confirmed. The flow through deferral account will only capture the variances between actual
22 and forecast costs and revenues. Please also refer to the response to BCUC IR2 18.5 for
23 additional discussion.

24

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1 **19.0 Reference: OVERVIEW OF GGRR CRITERIA**

2 **Exhibit B-5, Section 4, p. 22; Exhibit B-7, BCUC IR 5.6, 15.2.1**

3 **Retrospective Application**

4 On page 22 of the Revised Application, FBC states:

5 FBC recognizes that since 2018, both expenses and revenues have been
6 accounted for in its non-regulated books. When FBC receives approval of this
7 Application, as discussed above, the assets associated with the EV charging
8 stations, and related revenues and expenses, will be reflected in FBC's regulated
9 accounts.

10 In response to BCUC IR 5.6, FBC stated:

11 [...] A statutory provision with “retrospective” effect operates on a forward-looking
12 basis but creates new results in respect of past events. Section 18 of the CEA
13 [*Clean Energy Act*] and section 5 of the GGRR have a “retrospective” effect, as
14 they require the recovery of the costs of all charging stations that come into
15 operation by December 31, 2025, which by definition includes stations in
16 operation prior to June 22, 2020.

17 The operative statutory provision is section 18(2) of the CEA, which states:

18 In setting rates under the *Utilities Commission Act* for a public utility
19 carrying out a prescribed undertaking, the commission must set rates that
20 allow the public utility to collect sufficient revenue in each fiscal year to
21 enable it to recover its costs incurred with respect to the prescribed
22 undertaking. [Emphasis added]

23 As emphasized in the quote above, the CEA requires the recovery of “costs
24 incurred” (in the past tense). It does not require the recovery of only forecast
25 costs or only those costs incurred *after* a certain date. [...]

26 In response to BCUC IR 15.2.1, FBC stated:

27 FBC plans to propose a method to recover actual costs (less revenues)
28 associated with its EV charging stations in its Annual Review. FBC will consider
29 the option of transferring net cumulative historical credits as set out in response
30 to BCUC IR1 15.2 as well as a projection for 2021 to its Flow-through deferral
31 account in 2021, and will bring forward this or another proposal for the BCUC's
32 review in the Annual Review process for setting 2022 rates.

33 19.1 Please clarify whether FBC's interpretation of the CEA requires the recovery of
34 costs incurred and the refund of surpluses (e.g. where the revenue collected from
35 charging stations exceeds the costs incurred) associated with FBC's EV charging



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1 stations that meet the criteria to be prescribed undertakings. Is there any
2 discretion on the part of the BCUC or FBC in the recovery or refund of past and
3 future costs and revenues?
4

5 **Response:**

6 Section 18(2) of the CEA specifies that “the commission must set rates that allow the public
7 utility to collect sufficient revenue in each fiscal year to enable it to recover its costs incurred
8 with respect to the prescribed undertaking.” To enable the BCUC to discharge this statutory
9 obligation, FBC will be forecasting its costs incurred with respect to its DCFC charging stations
10 that are prescribed undertakings in its annual reviews so that rates can be set each year that
11 are sufficient to recover those costs. As described in FBC’s response to BCUC IR2 18.5, any
12 variances between forecast and actual costs of these prescribed undertakings will be captured
13 in the Flow-through deferral account to be returned to or recovered from customers. As a result,
14 FBC’s customers will only pay for FBC’s actual cost incurred on its DCFC charging stations that
15 are prescribed undertakings. FBC considers this is sufficient to address the requirements of
16 section 18(2) of the CEA.

17 The CEA does not require the setting of a specific rate for DCFC charging stations or the refund
18 of surpluses, e.g. where the revenue collected from charging stations exceeds costs incurred.
19 Under FBC’s proposed rates, the revenues from DCFC charging stations will not match the
20 costs incurred each year, but are instead levelized so that over their life they will reasonably
21 recover FBC’s costs incurred. Any difference between the revenue and costs in any given year
22 will be to the credit or debit of all of FBC’s other customers, so that the requirements of section
23 18(2) will be met each year regardless of any variance between DCFC charging station costs
24 and revenues.

25

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1 **B. RATES AND RATE DESIGN**

2 **20.0 Reference: RATE DESIGN**

3 **Exhibit B-7, BCUC IR 2.1, 6.3, 6.4, 6.7 and 6.8; Exhibit B-8-1, British**
4 **Columbia Old Age Pensioners' Organization, Council of Senior**
5 **Citizens' Organizations of BC, Active Support Against Poverty,**
6 **Disability Alliance BC, and the Tenant Resource and Advisory**
7 **Centre et al. (BCOAPO) IR 19.2 and 19.3**

8 **Rates**

9 In response to BCUC IR 6.3 and 6.4, FBC submitted that the levelized DCFC rate would
10 not be subject to general rate increases or decreases, and that the Rate Schedule (RS)
11 96 tariff should specify as such. FBC stated:

12 FBC is proposing that RS 96 be exempt from general rate changes because the
13 model used to determine the levelized rate already includes reasonable
14 estimates of the annual general rate change to RS 21, which represents the cost
15 of electricity in the calculation, and also includes inflation factors for O&M and
16 property taxes which would factor into a general rate change impacting all rates.

17
18 In response to BCUC IR 6.7, FBC submits that it would periodically review RS 96 as part
19 of its Cost of Service Analysis (COSA) to consider whether the revenues from RS 96
20 were reasonably recovering the cost of service under RS 96. FBC is also proposing a
21 general review of the DCFC Program as part of its Annual Review under the Multi-year
22 Rate Plan (MRP). In response to BCUC IR 6.8, FBC stated:

23 FBC's Annual Review will include updated annual forecasts for the EV Program.
24 In this review, the BCUC and interveners can inquire into any aspect of the
25 program, including comparative station usage, demand and consumption
26 statistics, revenue and cost figures as well as customer feedback and site
27 buildout. The criteria against which each measure would be evaluated would be
28 the forecast values included in the Revised Application.

29 20.1 Please provide the proposed amended tariff page(s) to reflect that RS 96 would
30 not be subject to general rate increases or decreases.

31
32 **Response:**

33 FBC is not proposing to include language specific to the general rate increase or decrease
34 treatment in the RS 96 tariff pages. Rather, FBC will include language in the requested
35 approvals related to the general rate increase or decrease that RS 96 not be impacted.

36
37



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1
2 20.2 Instead of reviewing the EV Program in the MRP Annual Review process, please
3 discuss the pros and cons if the review is conducted on a standalone basis
4 considering that RS 96 is proposed to be exempt from general rate changes.
5 Please include the review frequency, timing, and content of such standalone
6 filings.

7
8 **Response:**

9 FBC does not view the fact that it has requested an exemption for RS 96 from general rate
10 changes to be determinative of when a review of the EV program should occur. FBC believes
11 that it will be most efficient to conduct an annual review of the EV program at a time when other
12 programs offered by the Company, as well as general performance, are also occurring.
13 Interveners and the BCUC are already gathered and have set aside time to review Company
14 materials and presentations, and a separate process for an EV Program review would simply
15 add an additional process to an already busy calendar. The only potential downside of
16 reviewing the EV Program alongside a broader annual review is the potential for less scrutiny to
17 be afforded to it. However, FBC believes that there is enough interest in the program that this is
18 unlikely. FBC believes that if a standalone review were to occur, it should be done on an annual
19 basis with a 12 month interval but that the specific timing within the year could be set at the
20 convenience of the BCUC.

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22
23
24 In response to BCOAPO IR 19.2 and 19.3, FBC provided two schedules for the
25 derivation of the annual values of electricity cost based on RS 21 for 50 kW stations and
26 100 kW stations, respectively. By Order G-298-20, the BCUC approved FBC's
27 application for a 4.36 percent general rate increase, on an interim and refundable basis,
28 effective January 1, 2021.

29 In response to BCUC IR 2.1, FBC proposed that the RS 96 included in the Revised
30 Application be effective within 30 days of the date the BCUC renders its final decision.

31 20.3 Please confirm, or otherwise explain, that the 4.36 percent general rate change
32 will increase the rates under RS 21, effective January 1, 2021.

33
34 **Response:**

35 In response to BCUC IR2 20.6, FBC updated the financials related to this Revised Application
36 and recalculated the RS 96 rate with the 4.36 percent² general rate change effective January 1,
37 2021.

² Approved on a permanent basis effective January 1, 2021 with Order G-42-21.



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1 Following the BCUC's decision on this Revised Application, FBC proposes that the BCUC-
2 approved RS 96 rates will become effective within 30 days of the decision. Due to the nature of
3 EV charging and the fact that EV customers cannot be contacted to refund/recover differences
4 between the interim rate and the final rate approved in this Revised Application, it is not possible
5 to make effective, at January 1, 2021, the approved general rate increase of 4.36 percent within
6 the RS 96 rate. EV customers will continue paying the interim rate until a decision is rendered
7 and FBC puts in place the approved RS 96. Consequently, any difference between the
8 approved interim RS 96 rates and the permanently approved RS 96 rates will not have an
9 impact on EV customers.

10
11

12

13 20.4 Please clarify whether the RS 21 cost of electricity used in calculating the
14 proposed RS 96 includes the 4.36 percent general rate change, effective January
15 1, 2021.

16

17 **Response:**

18 Please refer to the response to BCUC IR2 20.6 for the updated calculation of the RS 96 rates
19 that includes the 4.36 percent general rate increase.

20 The proposed RS 96 rates as filed in the Revised Application did not include the 4.36 percent
21 general rate change effective January 1, 2021 since the Revised Application was filed on
22 September 30, 2020, before the interim 4.36 percent general rate increase approved by BCUC
23 Order G-298-20 on November 24, 2020 as referenced in the preamble to the information
24 request.

25 At the time of responding to this information request, FBC's general rate change of 4.36 percent
26 has been approved on a permanent basis by BCUC Order G-42-21, dated February 12, 2021.
27 As such, the updated calculation of RS 96 provided in the response to BCUC IR2 20.6 is based
28 on the permanently approved 4.36 percent general rate increase, which was effective January
29 1, 2021.

30

31

32

33 20.5 If applicable, please update the two schedules in response to BCOAPO IR 19.2
34 and 19.3 that show the derivation of the annual values of electricity cost based
35 on FBC's proposed general rate increase, effective January 1, 2021.

36

37 **Response:**

38 Please refer to Attachment 20.5A for the updated electricity cost schedules for the 50 kW
39 stations and Attachment 20.5B for the updated electricity cost schedules for the 100 kW
40 stations.

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1 The following changes are included to the updated electricity cost schedules:

- 2
- 3 • FBC's approved general rate increase of 4.36 percent, effective January 1, 2021, per BCUC Order G-42-21; and
 - 4 • When responding to BCOAPO IR2 37.4.2, FBC identified an error in the total electricity
5 calculation for the 50 kW stations. The 2027-2030 calculations were inadvertently not
6 using the correct average energy per charging event of 20 kWh. FBC has corrected the
7 average energy per charging event in the updated electricity cost schedules for the 50
8 kW stations.
- 9

10

11

12 20.6 If applicable, please re-calculate the RS 96 rates for 50 kW stations and 100 kW
13 stations based on the updated electricity costs.

14

15 **Response:**

16 As discussed in the response to BCUC IR2 20.5, FBC recalculated the RS 96 rates to reflect the
17 updated electricity charges and the correction of an error. The results are as follows:

	As applied for Station Rate (Per Min)	Updated Station Rate (Per Min)
50 kW Stations	\$0.27	\$0.26
100 kW Stations	\$0.55	\$0.54

18

19 Please refer to Schedule 2 of the updated financial schedules in Attachment 20.6A and
20 Attachment 20.6B for the updated EV charging rates for the 50 kW and 100 kW stations,
21 respectively. A revised Final Order reflecting this update is provided in Attachment 20.6C.

22

23

24

25 20.7 If applicable, in light of FBC's proposed effective date for RS 96 and the nature of
26 levelized rates, should the BCUC approve the RS 96 rates that are calculated
27 based on electricity rates effective January 1, 2021? Why or why not?

28

29 **Response:**

30 Yes, it would be appropriate for the BCUC to approve the RS 96 as applied for inclusive of the
31 4.36 percent general rate increase effective January 1, 2021, and the nature of levelized rates.

32 The financial models included with the response to BCUC IR2 20.5 include financial information
33 based on costs and EV station loads back to 2018, up to and beyond the January 2021 date,



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1 including the rate increase, which has been made permanent pursuant to Order G-42-21. In
2 addition, the rate increases in subsequent years are estimates that may differ from actual
3 increases in those years, and there are other forecast quantities in the model that add to the
4 variability it contains. All of these factors suggest that the just and reasonable approach is to
5 accept the RS 96 rate as revised, and to review the EV Program in the annual review as
6 proposed by the Company.

7

1 **21.0 Reference: RATE DESIGN**

2 **Exhibit B-9, BC Sustainable Energy Association (BCSEA) IR 5.1;**
 3 **Exhibit B-7, BCUC IR 17.7**

4 **Rate Design**

5 In response to BCSEA IR 5.1, FBC stated, “FBC intends to explore the use of rates that
 6 at least partially incorporate an energy use rate (kWh) when Measurement Canada
 7 approved metering is available for DCFC energy metering and billing purposes.”

8 In response to BCUC IR 17.7, FBC provided the following table which shows the DCFC
 9 fee structure for the Keremeos and Princeton locations.

Table 1: Keremeos and Princeton DCFC Fee Structure

Location	Existing Rate ¹	Proposed Rate(s)
Keremeos (702 4 th St.)	\$0.35/kWh with \$2 minimum	\$0.27 per minute (50 kW)
Princeton (114 Tapton Ave.)	\$0.35/kWh with \$2 minimum	\$0.27 per minute (50 kW) \$0.55 per minute (100 kW)

Note:

¹ Energy-based rates set by the local municipality as the station operator and are not subject to BCUC review. FBC is not aware of any municipal exemption from Measurement Canada standards.

10
 11
 12 21.1 To the best of FBC’s knowledge, please clarify how local municipalities charge
 13 energy-based rates for EV charging. What type of meter is being used, and what
 14 is the process for measurement disputes?

15
 16 **Response:**

17 FBC understands that local municipalities charge energy-based rates for EV charging using the
 18 internal metering of the installed EV charging stations. Although this metering is not accredited
 19 by Measurement Canada, it does allow for billing to be determined on an energy-basis.

20 FBC does not have any detailed technical knowledge of the type of meter being used to bill
 21 customers on an energy basis. Customers are able to file a measurement-related complaint
 22 with Measurement Canada at https://www.ic.gc.ca/eic/site/mc-mc.nsf/eng/h_1m00007.html.

23
 24
 25
 26 21.2 Please discuss whether there are alternative methods to determine or set
 27 reasonable standards for the purposes of measuring the quantity of electricity
 28 sold through FBC’s EV charging service.

29



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1 **Response:**

2 FBC is not aware of any reasonable alternative methods that are available to bill customers
3 based on the quantity of electricity supplied through FBC's DCFC stations.

4

1 **22.0 Reference: RATES**
 2 **Exhibit B-5, Appendix B; Exhibit B-7, BCUC IR 9.1, 9.4 and 9.6**
 3 **Carbon Credits**

4 In response to BCUC IR 9.1, FBC indicated that it has not yet sold any of the carbon
 5 credit related to its public DCFC stations. FBC provides the following table that shows
 6 the FBC DCFC carbon credits volumes.

Table 1: FBC DCFC Carbon Credits Volumes

	Compliance Period (January 1 – December 31)	
	2018	2019
Credits	25	50

7
 8 In response to BCUC IR 9.4, FBC has confirmed that it used \$200 per tonne to account
 9 for the sale of carbon credits to calculate the proposed EV rates.

10 22.1 If available, please provide the carbon credit volume for the January 1, 2020 to
 11 December 31, 2020 compliance period.

12
 13 **Response:**

14 Although FBC has not yet submitted its compliance report for 2020, it is estimated that
 15 approximately 120 carbon credits were generated by FBC’s DCFCs in 2020.

16
 17

18
 19 22.2 Please confirm, or otherwise explain, that \$200 per tonne is equal to \$200 per
 20 credit.

21 22.2.1 If confirmed, would the carbon credits then be worth \$5,000 for the
 22 2018 compliance period and \$10,000 for the 2019 compliance period if
 23 valued at \$200 per tonne (or per credit)³ ?

24
 25

25 **Response:**

26 FBC confirms that \$200 per tonne is equal to \$200 per credit. As a result, the carbon credits
 27 would be worth \$5,000 and \$10,000 for 2018 and 2019, respectively, as noted.

28
 29

³ 2018 Calculation: \$200 per tonne (or per credit) * 25 credits = \$5,000; 2019 Calculation: \$200 per tonne (or per credit) * 50 credits = \$10,000.

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1
2 In response to BCUC IR 9.6, FBC stated:

3 FBC is not currently a recognized fuel supplier under Part 3 of the RLCFRR
4 [*Renewable and Low Carbon Fuel Requirements Regulation*], but is in the
5 registration process. However, FBC anticipates that FEI (who is registered) will
6 be able to sell the credits on behalf of FBC to reduce administrative costs.
7 Further, by bundling their credits together, FBC and FEI will be able to increase
8 their sales volume in order to pursue a higher price per credit, thereby
9 maximizing credit sales revenue for both entities.

10 22.3 Please specify when FBC applied to become a designated Part 3 fuel supplier
11 under Part 3 of the RLCFRR and when FBC is expected to become a designated
12 Part 3 fuel supplier.

13
14 **Response:**

15 FBC's application for access to the Transportation Fuel Reporting System was granted in early
16 February 2021. FBC has since submitted its first compliance report for 2019, and expects to
17 become a designated Part 3 fuel supplier once the compliance report is validated later this year.

18 As an update to FBC's response to BCUC IR1 9.6, FBC no longer anticipates that FEI will sell
19 the credits on behalf of FBC, as it is not feasible for FEI to validate credits on FBC's behalf.
20 Going forward, FBC will report and sell carbon credits on its own behalf.

21
22

23
24 22.4 As FBC is not yet a designated Part 3 fuel supplier, please clarify whether FBC's
25 DCFC carbon credits of 25 units in 2018 and 50 units in 2019 are only estimates
26 that FBC has calculated or if these carbon credits have been validated by the
27 director⁴ as defined in the RLCFRR.

28
29 **Response:**

30 While the 2018 credits reported by FEI on FBC's behalf were validated by the Ministry, FBC was
31 not a designated fuel supplier under Part 3 of the *Greenhouse Gas Reduction (Renewable and*
32 *Low Carbon Fuel Requirements) Act* at the time and FBC no longer anticipates that FEI may
33 sell the 2018 credits on its behalf. FBC now plans to sell these credits on its own behalf, and
34 FBC is working with FEI to apply under section 11.11 of the *Renewable and Low Carbon Fuel*
35 *Requirements Regulation* for a transfer of the credit generated in 2018 back to FBC.

⁴ In accordance with the RLCFRR, "director" means the government employee designated by the minister as the director for the purposes of this Act.



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1 FBC's 2019 credits are estimates and, as noted in response to BCUC IR2 22.3, FBC has
2 submitted its compliance report for 2019. FBC will continue to report and sell carbon credits on
3 its own behalf going forward. Once sold, revenues associated with these credits will flow to FBC
4 ratepayers.

5
6

7

8 22.5 As FBC is not yet designated as a Part 3 fuel supplier, please confirm, or
9 otherwise explain, that FBC's DCFC carbon credits can be validated on a
10 retroactive basis.

11

12 **Response:**

13 Confirmed. As discussed in the response to BCUC IR2 22.3, FBC has received approval for
14 access to the Transportation Fuel Reporting System and has submitted its 2019 compliance
15 report for validation.

16
17

18

19 22.6 Please clarify how FEI will be able to sell carbon credits on behalf of FBC. Under
20 what section(s) of the RLCFRR is this type of transaction permitted?

21

22 **Response:**

23 FBC no longer anticipates that FEI will sell carbon credits on behalf of FBC. Please refer to the
24 response to BCUC IR2 22.3.

25
26

27

28 22.7 Please elaborate and quantify on the administrative costs that FBC may incur if it
29 sells the carbon credits as a standalone entity. Are these administrative costs
30 reflected in the calculation of RS 96? If not, why, and what would be the rate
31 impact if these administrative costs are included?

32

33 **Response:**

34 The administrative costs for reporting and selling carbon credits are captured as part of the
35 costs for the 0.5 FTE included in the cost of service analysis for RS 96.

36
37

38



FortisBC Inc. (FBC or the Company) Application for Approval of Rate Design and Rates for Electric Vehicle (EV) Direct Current Fast Charging (DCFC) Service (Application)	Submission Date: February 25, 2021
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1 As per the RS 96 Tariff proposed in Appendix B of the Revised Application, FBC states
2 that RS 96 is “Available for electric vehicle charging at FortisBC-owned Direct Current
3 Fast Charging stations.”

4 22.8 Please discuss whether it may possible that customers (e.g. fleet customers or
5 large volume customers) would request to retain the carbon credits for their own
6 benefit. How would FBC address this request and have these requests occurred
7 to date?
8

9 **Response:**

10 With respect to the public DCFC stations which are the subject of this Application, it will not be
11 possible for fleet or large volume customers to request the carbon credits for their own benefit.

12 FBC will consider such requests for fleet or large volume customers that request FBC to provide
13 dedicated private charging infrastructure for their exclusive use.

14

FortisBC Inc. (FBC or the Company) Application for Approval of Rate Design and Rates for Electric Vehicle (EV) Direct Current Fast Charging (DCFC) Service (Application)	Submission Date: February 25, 2021
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1 **C. OTHER MATTERS**

2 **23.0 Reference: OTHER MATTERS**

3 **Exhibit B-5, Section 1.2, p. 3, Section 2.6, p. 10; Exhibit B-7, BCUC IR**
4 **17.7, 17.9**

5 **FBC New Denver and Nakusp Stations for BC Hydro Keremeos and**
6 **Princeton Stations**

7 On page 3 of the Revised Application, FBC states that it “plans to transfer ownership of
8 the sites in New Denver and Nakusp to BC Hydro in exchange for sites in Keremeos and
9 Princeton.”

10 In response to BCUC IR 17.9, which asked FBC to clarify whether FBC is seeking BCUC
11 approval of this exchange of site and station ownership with British Columbia Hydro and
12 Power Authority (BC Hydro), FBC stated, “FBC clarifies that it is seeking BCUC approval
13 pursuant to section 52 of the *Utilities Commission Act* to transfer ownership and
14 operation of the DCFC stations in New Denver and Nakusp to BC Hydro. The transfer
15 will facilitate each utility operating the charging stations in their respective service areas.”

16 On page 10 of the Revised Application, FBC states:

17 ... site ownership and operation of the DCFC stations in New Denver and
18 Nakusp are to be transferred to BC Hydro prior to March 31, 2021. FBC will
19 assume ownership and operation of equivalent existing BC Hydro sites in
20 Keremeos and Princeton in exchange, resulting in a total of 23 sites planned for
21 operation by Q2 2021. [Emphasis added]

22
23 23.1 Please clarify whether FBC requires BCUC approval under section 52 of the
24 Utilities Commission Act, prior to March 31, 2021, in order to transfer the site
25 ownership and operation of FBC’s DCFC stations in New Denver and Nakusp to
26 BC Hydro.

27
28 **Response:**

29 FBC requires BCUC approval under section 52 of the *Utilities Commission Act* in order to
30 transfer the site ownership and operation of FBC’s DCFC stations in New Denver and Nakusp
31 to BC Hydro. While the timeframe initially envisioned by FBC would have effected the transfer
32 by the March 31, 2021 date, the Company will not effect the transfer until BCUC approval to do
33 so is received.

34
35
36

Attachment 20.5

Fortis BC
50 kW Electricity Cost Schedule

Line	Particulars	Reference	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Electricity Rates (G521 Commercial Service)														
2	Demand Charge (per kVA > 45 kVA)		\$ 8.55	\$ 9.47	\$ 9.47	\$ 10.77	\$ 11.15	\$ 11.54	\$ 11.94	\$ 12.18	\$ 12.42	\$ 12.67	\$ 12.93	\$ 13.18	\$ 13.45
3	Energy Charge (First 8,000 kW.h)		\$ 0.08026	\$ 0.07497	\$ 0.07497	\$ 0.07275	\$ 0.07530	\$ 0.07793	\$ 0.08066	\$ 0.08227	\$ 0.08392	\$ 0.08560	\$ 0.08731	\$ 0.08905	\$ 0.09084
4	Energy Charge (balance kW.h)		\$ 0.07086	\$ 0.07084	\$ 0.07084	\$ 0.07275	\$ 0.07530	\$ 0.07793	\$ 0.08066	\$ 0.08227	\$ 0.08392	\$ 0.08560	\$ 0.08731	\$ 0.08905	\$ 0.09084
5															
6	Basic Charge (monthly)		\$ 28.99	\$ 41.92	\$ 41.92	\$ 56.92	\$ 58.91	\$ 60.97	\$ 63.11	\$ 64.37	\$ 65.66	\$ 66.97	\$ 68.31	\$ 69.68	\$ 71.07
7															
8	Electricity Inflation Factor						3.50%	3.50%	3.50%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
9															
10	Single 50 kW Station														
11	Forecasted Maximum Demand for Single 50 kW Station in KVA		54	54	54	54	54	54	54	54	54	54	54	54	54
12	Less: 45 kVA		45	45	45	45	45	45	45	45	45	45	45	45	45
13	Billing Demand > 45 kVA per Station		9	9	9	9	9	9	9	9	9	9	9	9	9
14															
15	Double 50 kW Station														
16	Forecasted Maximum Demand for Double 50 kW Station in KVA			85	85	108	108	108	108	108	108	108	108	108	108
17	Less: 45 kVA			45	45	45	45	45	45	45	45	45	45	45	45
18	Billing Demand > 45 kVA per Station			40	40	63	63	63	63	63	63	63	63	63	63
19															
20	Split Stations 100 kW Station/50 kW Station														
21	Forecasted Maximum Demand for 50kW Side of Split			54	54	54	54	54	54	54	54	54	54	54	54
22	Less: (45 kVA/2) for Split Stations with 100 kW and 50 kW Charging					23	23	23	23	23	23	23	22.5	22.5	22.5
23	Billing Demand > 45/2 kVA per Station					32	32	32	32	32	32	32	32	32	32
24															
25	Basic Monthly Charge Accrual			335											
26															
27	Single 50 kW Station														
28	Months Hitting Maximum Demand		12	12	12	12	12	12	12	12	12	12	12	12	12
29	Months Eligible for 25% Reduction in Demand Charge		-	-	-	-	-	-	-	-	-	-	0	0	0
30	Billing Demand Reduction at 25% (1-.25)		75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
31															
32	Double 50 kW Stations														
33	Months Hitting Maximum Demand			1	1	12	12	12	12	12	12	12	12	12	12
34	Months Eligible for 25% Reduction in Demand Charge		-	6	11	-	-	-	-	-	-	-	-	-	-
35	Billing Demand Reduction at 25% (1-.25)		75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
36															
37	Split Stations 100 kW Station/50 kW														
38	Months Hitting Maximum Demand					1	12	12	12	12	12	12	12	12	12
39	Months Eligible for 25% Reduction in Demand Charge					11	-	-	-	-	-	-	-	-	-
40	Billing Demand Reduction at 25% (1-.25)					75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
41															
42	Number of Charging Events		508	3,134	13,078	25,311	33,784	45,406	58,185	72,147	91,978	117,836	140,329	147,780	149,022
43	Energy Consumption for all Stations (kWh)		40,831	131,174	373,997	723,951	893,418	1,125,860	1,381,446	1,660,676	2,057,292	2,574,458	3,024,319	3,173,341	3,198,178
44	First Tier kWh (First 8,000 kWh per station)		40,000	48,000	128,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000	40,000	40,000
45	Second Tier kWh		831	83,174	245,997	587,951	757,418	989,860	1,245,446	1,524,676	1,921,292	2,438,458	2,984,319	3,133,341	3,158,178
46	Number of Single Stations 50 kW		5	5	9	5	5	5	5	5	5	5	5	5	5
47	Number of Double 50 kW Stations			1	7	12	12	12	12	12	12	12	12	12	12
48	Number of Double Stations -split (100 kW)/(50 kW)					5	5	5	5	5	5	5	5	5	5
49	Annual for all Stations														
50	Demand Charge (\$) Split Stations - 100kW/50kW	(Line 2 x Line 23 x Line 38 x Line 48) + (Line 2 x Line 23 x Line 39 x Line 40 x Line 48)	-	-	-	15,691	21,068	21,805	22,568	23,020	23,480	23,950	24,429	24,917	25,416
51	Demand Charge (\$) Double 50 kW Stations	(Line 2 x Line 18 x Line 33 x Line 47) + (Line 2 x Line 18 x Line 34 x Line 35 x Line 47)	-	2,083	24,527	97,705	101,125	104,665	108,328	110,494	112,704	114,958	117,257	119,603	121,995
52	Demand Charge (\$) Single Stations 50 kW	(Line 2 x Line 13 x Line 28 x Line 46) + (Line 2 x Line 13 x Line 29 x Line 30 x Line 46)	4,617	5,114	9,205	5,816	6,019	6,230	6,448	6,577	6,709	6,843	6,980	7,119	7,262
53	Energy Charge (First 8,000 kW.h) (\$)	Line 3 x Line 44	3,210	3,599	9,596	9,894	10,240	10,599	10,970	11,189	11,413	11,641	3,492	3,562	3,633
54	Energy Charge (balance kW.h)	Line 4 x Line 45	59	5,892	17,426	42,773	57,031	77,141	100,457	125,439	161,231	208,723	260,555	279,038	286,874
55															
56	Basic Charge (Annual)	(Line 6 x 12) x (Line 46 + Line 47 + (Line 48/2)) + Line 25	1,739	3,354	8,049	13,319	13,785	14,268	14,767	15,063	15,364	15,671	15,985	16,304	16,630
57	Total Annual Electricity Cost (\$)	Sum of Line 50 to Line 56	9,626	20,041	68,803	185,199	209,269	234,708	263,538	291,781	330,900	381,786	428,698	450,543	461,810

Fortis BC
100 kW Electricity Cost Schedule

Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Electricity Rates (GS21 Commercial Service)											
2	Demand Charge (per kVA > 45 kVA)		\$ 10.77	\$ 11.15	\$ 11.54	\$ 11.94	\$ 12.18	\$ 12.42	\$ 12.67	\$ 12.93	\$ 13.18	\$ 13.45
3	Energy Charge (First 8,000 kW.h)		\$ 0.07275	\$ 0.07530	\$ 0.07793	\$ 0.08066	\$ 0.08227	\$ 0.08392	\$ 0.08560	\$ 0.08731	\$ 0.08905	\$ 0.09084
4	Energy Charge (balance kW.h)		\$ 0.07275	\$ 0.07530	\$ 0.07793	\$ 0.08066	\$ 0.08227	\$ 0.08392	\$ 0.08560	\$ 0.08731	\$ 0.08905	\$ 0.09084
5												
6	Basic Charge (monthly)		\$ 56.92	\$ 58.91	\$ 60.97	\$ 63.11	\$ 64.37	\$ 65.66	\$ 66.97	\$ 68.31	\$ 69.68	\$ 71.07
7												
8	Electricity Inflation Factor			3.50%	3.50%	3.50%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
9												
10	Single 100 kW Station											
11	Forecasted Maximum Demand for Single 100 kW Station in KVA		85	85	85	108	108	108	108	108	108	108
12	Less: 45 kVA		45	45	45	45	45	45	45	45	45	45
13	Billing Demand > 45 kVA per Station		40	40	40	63	63	63	63	63	63	63
14												
15	Split Stations 100 kW Station/50 kW											
16	Forecasted Maximum Demand for 100kW Side of Split		108	108	108	108	108	108	108	108	108	108
17	Less: (45 kVA/2) for Split Stations with 100 kW and 50 kW Charging		23	23	23	23	23	23	23	23	23	23
18	Billing Demand > 45/2 kVA per Station		86	86	86	86	86	86	86	86	86	86
19												
20	Single 100 kW Station											
21	Months Hitting Maximum Demand		12	12	12	12	12	12	12	12	12	12
22	Months Eligible for 25% Reduction in Demand Charge		-	-	-	-	-	-	-	-	-	-
23	Billing Demand Reduction at 25% (1-.25)		75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
24												
25	Split Stations 100 kW Station/50 kW											
26	Months Hitting Maximum Demand		1	12	12	12	12	12	12	12	12	12
27	Months Eligible for 25% Reduction in Demand Charge		11	-	-	-	-	-	-	-	-	-
28	Billing Demand Reduction at 25% (1-.25)		75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
29												
30	Number of Charging Events		4,109	5,962	8,013	10,268	12,732	16,231	20,795	26,448	32,434	34,626
31	Energy Consumption for all Stations (kWh)		120,610	157,662	198,681	243,785	293,060	363,052	454,316	567,383	687,108	730,938
32	First Tier kWh (First 8,000 kWh per station)		48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000
33	Second Tier kWh		72,610	109,662	150,681	195,785	245,060	315,052	406,316	519,383	639,108	682,938
34												
35	Number of Single Stations (100 kW)		1	1	1	1	1	1	1	1	1	1
36	Number of Split Stations - (100 kW)/(50 kW)		5	5	5	5	5	5	5	5	5	5
37	Annual for all Stations											
38	Demand Charge (\$) Split Stations - 100kW/50kW	(Line 2 x Line 18 x Line 26 x Line 36) + (Line 2 x Line 18 x Line 27 x Line 28 x Line 36)	42,589	57,184	59,185	61,257	62,482	63,732	65,006	66,306	67,632	68,985
39	Demand Charge per (\$) Single Stations 100 kW	(Line 2 x Line 13 x Line 21 x Line 35) + (Line 2 x Line 13 x Line 22 x Line 23 x Line 35)	5,170	5,351	5,538	9,027	9,208	9,392	9,580	9,771	9,967	10,166
40	Energy Charge (First 8,000 kW.h (\$))	Line 3 x Line 32	3,492	3,614	3,741	3,872	3,949	4,028	4,109	4,191	4,275	4,360
41	Energy Charge (balance kW.h)	Line 4 x Line 33	5,282	8,257	11,743	15,792	20,162	26,438	34,779	45,346	56,915	62,035
42												
43	Basic Charge (Annual)	Line 6 x 12 x (Line 35 + (Line 36/2))	2,391	2,474	2,561	2,651	2,704	2,758	2,813	2,869	2,926	2,985
44	Total Annual Electricity Cost (\$)	Sum of Line of 38 to Line 43	58,923	76,880	82,768	92,598	98,504	106,348	116,287	128,484	141,716	148,531

Attachment 20.6

FortisBC Inc.
EV Charging Stations Review - 50 kW Stations
Schedule 1
September 2020
(\$000s), unless otherwise stated

Line	Particulars	Reference	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
1	Cost of Service															
2	Power Purchase		2	7	19	38	46	60	76	94	120	154	187	202	209	
3	Operation & Maintenance	Line 27	0	2	26	154	187	191	194	198	191	195	199	203	207	
4	Property Taxes	Line 32	-	-	(0)	(3)	2	6	5	4	4	4	3	3	2	
5	Depreciation Expense	Line 58	-	60	197	312	401	401	401	401	403	406	409	351	227	
6	Amortization Expense on CIAC	Line 71	-	(35)	(70)	(106)	(211)	(211)	(211)	(211)	(211)	(211)	(211)	(211)	(211)	
7	Other Revenue - Carbon Credits	-Line 125	(6)	(20)	(57)	(110)	(135)	(171)	(209)	(252)	(312)	(390)	(458)	(481)	(485)	
8	NRCan Repayment	Line 149	-	-	193	36	-	-	-	-	-	-	-	-	213	
9	Income Taxes	Line 111	(9)	(361)	(220)	143	81	81	80	77	74	72	70	46	(1)	
10	Earned Return	Line 95	6	53	114	123	101	89	77	65	54	43	32	22	19	
11	Incremental Annual Revenue Requirement	Sum of Line 2 to Line 10	(6)	(295)	204	585	472	445	411	377	323	272	229	134	180	
12	PV of Revenue Requirement (After-tax WACC of 5.87%)	Line 11 / (1 + Line 97)^Yr	(6)	(263)	172	467	357	318	278	241	195	155	124	69	87	
13	Total PV of Annual Revenue Requirement	Sum of Line 12	2,194													
14																
15	2021 Approved Revenue Requirement (2021 Advanced Materials)		356,340	370,534	370,534	362,255	362,255	362,255	362,255	362,255	362,255	362,255	362,255	362,255	362,255	
16	% Increase on 2021 Rate	Line 11 / Line 15	0.00%	-0.08%	0.05%	0.16%	0.13%	0.12%	0.11%	0.10%	0.09%	0.08%	0.06%	0.04%	0.05%	
17																
18	PV of Annual 2021 Approved Revenue Requirement	Line 15 / (1 + Line 97)^Yr	336,571	330,470	313,177	289,519	273,743	258,826	244,722	231,387	218,779	206,857	195,585	184,928	174,851	
19	Total PV of 2021 Approved Revenue Requirement	Sum of Line 18	3,259,414													
20	Levelized % Increase (13 yrs) on 2021 Rate	Line 13 / Line 19	0.07%													
21																
22	Operation & Maintenance															
23	Labour Costs		-	-	-	53	64	65	66	68	69	71	72	73	75	
24	Non-Labour Costs		0	2	26	101	123	125	128	131	122	124	127	129	132	
25	Total Gross O&M Expenses	Line 23 + Line 24	0	2	26	154	187	191	194	198	191	195	199	203	207	
26	Less: Capitalized Overhead	Overhead Rate of 0%	-	-	-	-	-	-	-	-	-	-	-	-	-	
27	Net O&M Expenses	Line 25 + Line 26	0	2	26	154	187	191	194	198	191	195	199	203	207	
28																
29	Property Taxes															
30	General, School and Other		-	-	-	-	-	-	-	-	-	-	-	-	-	
31	1% in Lieu of General Municipal Tax ¹	1% of Line 11	-	-	(0)	(3)	2	6	5	4	4	4	3	3	2	
32	Total Property Taxes	Line 30 + Line 31	-	-	(0)	(3)	2	6	5	4	4	4	3	3	2	
33	1 - Calculation is based on the second preceding year, e.g. 2020 is based on 2018 revenue															
34																

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Line	Particulars	Reference	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
35	Capital Spending															
36	Project Capital Spending ²		599	1,644	1,238	965	-	-	-	25	26	26	27	27	28	
37	AFUDC		-	-	37	29	-	-	-	-	-	-	-	-	-	
38	Total Annual Capital Spending & AFUDC	Sum of Line 36 to 39	599	1,644	1,274	994	-	-	-	25	26	26	27	27	28	
39	Cost of Removal		-	-	-	-	-	-	-	-	-	-	-	-	-	
40	Contributions in Aid of Construction (CIAC)		(423)	(415)	(434)	(1,251)	-	-	-	-	-	-	-	-	-	
41	Total Annual Project Cost - Capital	Line 38 + Line 39	176	1,229	840	(257)	-	-	-	25	26	26	27	27	28	
42																
43	Total Project Cost (incl. AFUDC)	Sum of Line 38	4,669													
44	Net Project Cost (incl. Removal and/or CIAC)	Sum of Line 41	2,146													
45	2 - Excluding capitalized overhead; First year of analysis includes all prior year spending															
46																
47	Gross Plant in Service (GPIS)															
48	GPIS - Beginning ³	Preceding Year, Line 52	-	599	2,243	3,517	4,511	4,511	4,511	4,511	4,536	4,562	4,588	4,015	2,770	
49	Additions to Plant ⁴		599	1,644	1,274	994	-	-	-	25	26	26	27	27	28	
50	Retirements		-	-	-	-	-	-	-	-	-	-	(599)	(1,272)	(1,092)	
51	Net Addition to Plant	Sum of Line 49 to 50	599	1,644	1,274	994	-	-	-	25	26	26	(572)	(1,245)	(1,065)	
52	GPIS - Ending	Line 48 + Line 51	599	2,243	3,517	4,511	4,511	4,511	4,511	4,536	4,562	4,588	4,015	2,770	1,705	
53	3 - Consistent with treatment of PCPN, additions (when work complete and placed in-service) is shown in the opening balance of plant on Jan 1 of following year)															
54	4 - Includes capitalized overhead															
55																
56	Accumulated Depreciation															
57	Accumulated Depreciation - Beginning	Preceding Year, Line 60	-	-	(60)	(257)	(569)	(970)	(1,371)	(1,772)	(2,173)	(2,577)	(2,983)	(2,792)	(1,872)	
58	Depreciation Expense ⁵	Line 48 @ 8.37%	-	(60)	(197)	(312)	(401)	(401)	(401)	(401)	(403)	(406)	(409)	(351)	(227)	
59	Retirements		-	-	-	-	-	-	-	-	-	-	599	1,272	1,092	
60	Accumulated Depreciation - Ending	Sum of Line 57 to 59	-	(60)	(257)	(569)	(970)	(1,371)	(1,772)	(2,173)	(2,577)	(2,983)	(2,792)	(1,872)	(1,006)	
61	5 - Depreciation & Amortization Expense calculation is based on opening balance x composite depreciation rate; The composite rate of all assets addition to plant is 8.37%															
62																
63	Contributions in Aid of Construction (CIAC)															
64	CIAC - Beginning	Preceding Year, Line 67	-	(423)	(838)	(1,272)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	
65	Additions		(423)	(415)	(434)	(1,251)	-	-	-	-	-	-	-	-	-	
66	Retirements		-	-	-	-	-	-	-	-	-	-	-	-	423	
67	CIAC - Ending	Sum of Line 64 to 66	(423)	(838)	(1,272)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,100)	
68																
69	Accumulated Amortization of Contributions in Aid of Construction (CIAC)															
70	Accumulated Amortization of CIAC - Beginning	Preceding Year, Line 73	-	-	35	106	212	423	634	846	1,057	1,268	1,479	1,690	1,902	
71	Amortization (over 11.95 yrs)	Line 64 @ 8.37%	-	35	70	106	211	211	211	211	211	211	211	211	211	
72	Retirements		-	-	-	-	-	-	-	-	-	-	-	-	(423)	
73	Accumulated Amortization of CIAC - Ending	Sum of Line 70 to 72	-	35	106	212	423	634	846	1,057	1,268	1,479	1,690	1,902	1,690	
74																

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Line	Particulars	Reference	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
75	Rate Base and Earned Return														
76	Gross Plant in Service - Beginning	Line 48	-	599	2,243	3,517	4,511	4,511	4,511	4,511	4,536	4,562	4,588	4,015	2,770
77	Gross Plant in Service - Ending	Line 52	599	2,243	3,517	4,511	4,511	4,511	4,511	4,536	4,562	4,588	4,015	2,770	1,705
78															
79	Accumulated Depreciation - Beginning	Line 57	-	-	(60)	(257)	(569)	(970)	(1,371)	(1,772)	(2,173)	(2,577)	(2,983)	(2,792)	(1,872)
80	Accumulated Depreciation - Ending	Line 60	-	(60)	(257)	(569)	(970)	(1,371)	(1,772)	(2,173)	(2,577)	(2,983)	(2,792)	(1,872)	(1,006)
81															
82	CIAC - Beginning	Line 64	-	(423)	(838)	(1,272)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)
83	CIAC - Ending	Line 67	(423)	(838)	(1,272)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,523)	(2,100)
84															
85	Accumulated Amortization of CIAC - Beginning	Line 70	-	-	35	106	212	423	634	846	1,057	1,268	1,479	1,690	1,902
86	Accumulated Amortization of CIAC - Ending	Line 73	-	35	106	212	423	634	846	1,057	1,268	1,479	1,690	1,902	1,690
87															
88	Net Plant in Service, Mid-Year	(Sum of Lines 76 to Line 86) / 2	88	778	1,737	1,862	1,536	1,346	1,156	979	813	645	476	334	283
89	Adjustment to 13-month average	⁶	-	-	-	-	-	-	-	-	-	-	-	-	-
90	Cash Working Capital	Line 52 x FBC CWC/Closing GPIS %	<u>2</u>	<u>7</u>	<u>10</u>	<u>13</u>	<u>13</u>	<u>13</u>	<u>13</u>	<u>13</u>	<u>13</u>	<u>13</u>	<u>12</u>	<u>8</u>	<u>5</u>
91	Total Rate Base	Sum of Line 88 to 90	90	785	1,747	1,875	1,549	1,359	1,170	992	827	659	487	342	288
92															
93	Equity Return	Line 91 x ROE x Equity %	3	29	64	69	57	50	43	36	30	24	18	13	11
94	Debt Component	⁷	<u>3</u>	<u>24</u>	<u>50</u>	<u>54</u>	<u>45</u>	<u>39</u>	<u>34</u>	<u>29</u>	<u>24</u>	<u>19</u>	<u>14</u>	<u>10</u>	<u>8</u>
95	Total Earned Return	Line 93 + Line 94	6	53	114	123	101	89	77	65	54	43	32	22	19
96	Return on Rate Base %	Line 95 / Line 91	6.69%	6.71%	6.54%	6.54%	6.54%	6.54%	6.54%	6.54%	6.54%	6.54%	6.54%	6.54%	6.54%
97	After- Tax Weighted Average Cost of Capital (WACC)	⁸	5.87%	5.89%	5.77%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%
98	6 - (Line 51 + Line 58 + Line 65) x [(Days In-service/365)-1/2]														
99	7 - Line 91 x (LTD Rate x LTD% + STD Rate x STD %)														
100	8 - ROE Rate x Equity Component + [(STD Rate x STD Portion) + (LTD Rate x LTD Portion)] x (1- Income Tax Rate)]														
101															

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Line	Particulars	Reference	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
102	Income Tax Expense														
103	Earned Return	Line 95	6	53	114	123	101	89	77	65	54	43	32	22	19
104	Deduct: Interest on debt	Line 94	(3)	(24)	(50)	(54)	(45)	(39)	(34)	(29)	(24)	(19)	(14)	(10)	(8)
105	Add: Depreciation Expense	Line 58	-	60	197	312	401	401	401	401	403	406	409	351	227
106	Deduct: CIAC Amortization	Line 71	-	(35)	(70)	(106)	(211)	(211)	(211)	(211)	(211)	(211)	(211)	(211)	(211)
107	Deduct: Capital Cost Allowance	Line 119 (Include CCA from 2018)	(26)	(1,028)	(785)	112	(27)	(21)	(17)	(18)	(22)	(25)	(27)	(28)	(30)
108	Taxable Income After Tax	Sum of Line 103 to 107	(23)	(975)	(594)	386	219	218	215	208	200	194	188	124	(3)
109	Income Tax Rate		27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%
110															
111	Total Income Tax Expense	Line 108 / (1 - Line 109) x Line 109	(9)	(361)	(220)	143	81	81	80	77	74	72	70	46	(1)
112															
113	Capital Cost Allowance														
114	Opening Balance	Proceeding Year, Line 120	-	150	350	369	195	168	146	129	136	139	140	140	138
115	Additions to Plant	Line 38	599	1,644	1,274	994	-	-	-	25	26	26	27	27	28
116	Less: AFUDC	Line 37	-	-	(37)	(29)	-	-	-	-	-	-	-	-	-
117	Less: CIAC	Line 40	(423)	(415)	(434)	(1,251)	-	-	-	-	-	-	-	-	-
118	Net Addition for CCA	Sum of Line 115 through 117	176	1,229	804	(286)	-	-	-	25	26	26	27	27	28
119	CCA	[Line 114 + (Line 118/2)] x CCA Rate	(26)	(1,028)	(785)	112	(27)	(21)	(17)	(18)	(22)	(25)	(27)	(28)	(30)
120	Closing Balance	Line 114 + Line 118 + Line 119	150	350	369	195	168	146	129	136	139	140	140	138	136
121															
122	Carbon Credit														
123	Credit (Tonne)		31	99	283	549	677	853	1,047	1,259	1,559	1,951	2,292	2,405	2,424
124	Carbon Price (\$/tonne)		200	200	200	200	200	200	200	200	200	200	200	200	200
125	Carbon Credit Revenue (\$)	Line 123 x Line 124	6	20	57	110	135	171	209	252	312	390	458	481	485
126															

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Line	Particulars	Reference	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
127	NR Can Repayment														
128	Revenue	NR Can Stations Usage x Schedule 2, Line 15	-	9	57	130	173	233	298	370	471	604	719	758	764
129															
130	Expenses														
131	Cost of Electricity	NR Can Stations	-	8	47	151	170	190	212	234	264	303	340	357	365
132	Operation & Maintenance	NR Can Stations	-	2	17	110	143	146	149	152	146	149	152	155	158
133	Property Taxes	NR Can Stations	-	-	-	(3)	2	5	4	4	3	3	3	2	2
134	Depreciation Expense	NR Can Stations	-	-	138	242	331	331	331	331	333	336	338	341	217
135	Amortization Expense on CIAC	NR Can Stations	-	-	(35)	(71)	(176)	(176)	(176)	(176)	(176)	(176)	(176)	(176)	(176)
136	Other Revenue - Carbon Credits	NR Can Stations	-	(8)	(37)	(84)	(104)	(131)	(160)	(192)	(238)	(298)	(351)	(368)	(371)
137	Total Expenses	Sum of Lines 131 through 136	-	2	130	345	367	365	360	352	333	317	306	311	195
138															
139	Operating Income	Line 128 - Line 137	-	7	(73)	(215)	(193)	(132)	(62)	18	139	287	413	446	568
140	Interest	NR Can Stations	-	19	47	48	39	35	30	26	22	18	15	11	8
141	Earnings Before income taxes	Line 139 - Line 140	-	(12)	(120)	(263)	(233)	(167)	(92)	(8)	116	268	398	436	560
142	Income tax (recovery)	NR Can Stations	-	(355)	(183)	135	72	70	68	65	62	60	58	56	9
143	Net Earnings	Line 141 - Line 142	-	344	63	(398)	(304)	(237)	(160)	(73)	54	209	341	380	552
144															
145	Cumulative Net Earnings	Cumulative Sum of Line 143	-	344	407	9	(296)	(532)	(692)	(766)	(712)	(503)	(162)	217	769
146	Repayment to Canada (True/False)	If both Line 143 & 145 are positive, then TRUE	FALSE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	TRUE
147															
148	Repayment Ratio	NR Can funding as ratio of Capital	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%
149	Repayment Amount	If Line 146 = TRUE, then Line 148 x Line 143	-	193	36	-	-	-	-	-	-	-	-	213	310

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Line	Particulars	Reference	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1															
2	Incremental Annual Revenue Requirement	Cost of Service, Line 11	(6)	(295)	204	585	472	445	411	377	323	272	229	134	180
3	Subtract: FBC Power Purchase	-1 x Cost of Service, Line 2	(2)	(7)	(19)	(38)	(46)	(60)	(76)	(94)	(120)	(154)	(187)	(202)	(209)
4	Add: FBC Commercial Service Rate (RS 21)		10	20	69	185	209	235	264	292	331	382	429	451	462
5	Total Annual Revenue Requirement from EV Customer	Sum of Line 2 to Line 4	1	(282)	254	732	635	620	599	575	535	500	471	383	433
6	PV of Revenue Requirement (After-tax WACC of 5.87%)	Line 2 / (1 + Line 20)^Yr	1	(251)	214	585	480	443	405	367	323	285	254	196	209
7	Total PV of Annual Revenue Requirement	Sum of Line 6	3,512												
8															
9															
10	Levelized \$ per Minute Rate														
11	Number of Charging Minutes per Year		15,309	94,386	393,881	762,328	1,017,534	1,367,578	1,752,476	2,172,980	2,770,262	3,549,084	4,226,548	4,450,967	4,488,370
12	PV of Charging Minutes per year	Line 11 / (1 + Line 20)^Yr	14,459	84,181	332,910	609,262	768,913	977,115	1,183,890	1,387,972	1,673,059	2,026,620	2,281,957	2,272,174	2,166,414
13	Total PV of Charging Minutes per year	Sum of Line 12	15,778,924												
14															
15	Levelized \$ per minute rate to recover Cost of Service	Line 7 x 1,000 / Line 13	0.22												
16	Transaction Fee Percentage		15%												
17	Levelized \$ per minute rate (incl. Trans Fee)	Line 15 / (1 - Line 16)	0.26												
18															
19															
20	After- Tax Weighted Average Cost of Capital (WACC)	¹	5.87%	5.89%	5.77%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%
21	1 - ROE Rate x Equity Component + [(STD Rate x STD Portion) + (LTD Rate x LTD Portion)] x (1- Income Tax Rate)														

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Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Cost of Service											
2	Power Purchase		6	8	11	13	17	21	27	35	44	48
3	Operation & Maintenance	Line 27	16	33	34	34	35	34	34	35	36	36
4	Property Taxes	Line 32	-	-	(1)	1	1	1	1	1	0	0
5	Depreciation Expense	Line 58	-	67	67	67	67	67	67	67	67	67
6	Amortization Expense on CIAC	Line 71	-	(40)	(40)	(40)	(40)	(40)	(40)	(40)	(40)	(40)
7	Other Revenue - Carbon Credits	- Line 125	(18)	(24)	(30)	(37)	(44)	(55)	(69)	(86)	(104)	(111)
8	NR Can Repayment	Line 149	-	37	-	-	-	-	-	-	-	93
9	Income Taxes	Line 111	(87)	13	12	12	12	11	11	11	11	10
10	Earned Return	Line 95	10	19	17	15	13	12	10	8	6	5
11	Annual Revenue Requirement	Sum of Line 2 to Line 10	(73)	112	69	66	60	50	41	30	19	108
12	PV of Revenue Requirement (After-tax WACC of 5.76%)	Line 11 / (1 + Line 97)^Yr	(69)	100	58	52	45	36	28	19	12	62
13	Total PV of Annual Revenue Requirement	Sum of Line 12	343									
14												
15	2021 Approved Revenue Requirement (2021 Advanced Materials)		362,255	362,255	362,255	362,255	362,255	362,255	362,255	362,255	362,255	362,255
16	% Increase on 2021 Rate	Line 11 / Line 15	-0.02%	0.03%	0.02%	0.02%	0.02%	0.01%	0.01%	0.01%	0.01%	0.03%
17												
18	PV of Annual 2021 Approved Revenue Requirement	Line 15 / (1 + Line 97)^Yr	342,515	323,851	306,204	289,519	273,743	258,826	244,722	231,387	218,779	206,857
19	Total PV of 2021 Approved Revenue Requirement	Sum of Line 18	2,696,403									
20	Levelized % Increase (10 yrs) on 2021 Rate	Line 13 / Line 19	0.01%									
21												
22	Operation & Maintenance											
23	Labour Costs		6	11	12	12	12	12	12	13	13	13
24	Non-Labour Costs		11	22	22	23	23	21	22	22	23	23
25	Total Gross O&M Expenses	Line 23 + Line 24	16	33	34	34	35	34	34	35	36	36
26	Less: Capitalized Overhead	Overhead Rate of 0%	-	-	-	-	-	-	-	-	-	-
27	Net O&M Expenses	Line 25 + Line 26	16	33	34	34	35	34	34	35	36	36
28												
29	Property Taxes											
30	General, School and Other		-	-	-	-	-	-	-	-	-	-
31	1% in Lieu of General Municipal Tax ¹	1% of Line 11	-	-	(1)	1	1	1	1	1	0	0
32	Total Property Taxes	Line 30 + Line 31	-	-	(1)	1	1	1	1	1	0	0
33	1 - Calculation is based on the second preceding year, e.g. 2023 is based on 2021 revenue											
34												

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Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
35	Capital Spending											
36	Project Capital Spending ²		725	-	-	-	-	-	-	-	-	-
37	AFUDC		21	-	-	-	-	-	-	-	-	-
38	Total Annual Capital Spending & AFUDC	Sum of Line 36 to 39	746	-	-	-	-	-	-	-	-	-
39	Cost of Removal		-	-	-	-	-	-	-	-	-	-
40	Contributions in Aid of Construction (CIAC)		(450)	-	-	-	-	-	-	-	-	-
41	Total Annual Project Cost - Capital	Line 38 + Line 39	296	-	-	-	-	-	-	-	-	-
42												
43	Total Project Cost (incl. AFUDC)	Sum of Line 38	746									
44	Net Project Cost (incl. Removal and/or CIAC)	Sum of Line 41	296									
45	2 - Excluding capitalized overhead; First year of analysis includes all prior year spending											
46												
47	Gross Plant in Service (GPIS)											
48	GPIS - Beginning ³	Preceding Year, Line 52	-	746	746	746	746	746	746	746	746	746
49	Additions to Plant ⁴		746	-	-	-	-	-	-	-	-	-
50	Retirements		-	-	-	-	-	-	-	-	-	-
51	Net Addition to Plant	Sum of Line 49 to 50	746	-	-	-	-	-	-	-	-	-
52	GPIS - Ending	Line 48 + Line 51	746	746	746	746	746	746	746	746	746	746
53	3 - Consistent with treatment of CPCN, additions (when work complete and placed in-service) is shown in the opening balance of plant on Jan 1 of following year											
54	4 - Includes capitalized overhead											
55												
56	Accumulated Depreciation											
57	Accumulated Depreciation - Beginning	Preceding Year, Line 60	-	-	(67)	(134)	(201)	(268)	(335)	(401)	(468)	(535)
58	Depreciation Expense ⁵	Line 48 @ 8.97%	-	(67)	(67)	(67)	(67)	(67)	(67)	(67)	(67)	(67)
59	Retirements		-	-	-	-	-	-	-	-	-	-
60	Accumulated Depreciation - Ending	Sum of Line 57 to 59	-	(67)	(134)	(201)	(268)	(335)	(401)	(468)	(535)	(602)
61	5 - Depreciation & Amortization Expense calculation is based on opening balance x composite depreciation rate; The composite rate of all assets addition to plant is 8.97%											
62												
63	Contributions in Aid of Construction (CIAC)											
64	CIAC - Beginning	Preceding Year, Line 67	-	(450)	(450)	(450)	(450)	(450)	(450)	(450)	(450)	(450)
65	Additions		(450)	-	-	-	-	-	-	-	-	-
66	Retirements		-	-	-	-	-	-	-	-	-	-
67	CIAC - Ending	Sum of Line 64 to 66	(450)	(450)	(450)	(450)	(450)	(450)	(450)	(450)	(450)	(450)
68												
69	Accumulated Amortization of Contributions in Aid of Construction (CIAC)											
70	Accumulated Amortization of CIAC - Beginning	Preceding Year, Line 73	-	-	40	81	121	161	202	242	283	323
71	Amortization (over 11.15 yrs)	Line 64 @ 8.97%	-	40	40	40	40	40	40	40	40	40
72	Retirements		-	-	-	-	-	-	-	-	-	-
73	Accumulated Amortization of CIAC - Ending	Sum of Line 70 to 72	-	40	81	121	161	202	242	283	323	363
74												

FortisBC Inc.
EV Charging Stations Review - 100 kW Stations
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Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
75	Rate Base and Earned Return											
76	Gross Plant in Service - Beginning	Line 48	-	746	746	746	746	746	746	746	746	746
77	Gross Plant in Service - Ending	Line 52	746	746	746	746	746	746	746	746	746	746
78												
79	Accumulated Depreciation - Beginning	Line 57	-	-	(67)	(134)	(201)	(268)	(335)	(401)	(468)	(535)
80	Accumulated Depreciation - Ending	Line 60	-	(67)	(134)	(201)	(268)	(335)	(401)	(468)	(535)	(602)
81												
82	CIAC - Beginning	Line 64	-	(450)	(450)	(450)	(450)	(450)	(450)	(450)	(450)	(450)
83	CIAC - Ending	Line 67	(450)	(450)	(450)	(450)	(450)	(450)	(450)	(450)	(450)	(450)
84												
85	Accumulated Amortization of CIAC - Beginning	Line 70	-	-	40	81	121	161	202	242	283	323
86	Accumulated Amortization of CIAC - Ending	Line 73	-	40	81	121	161	202	242	283	323	363
87												
88	Net Plant in Service, Mid-Year	(Sum of Lines 76 to Line 86) / 2	148	282	256	229	203	176	150	123	97	70
89	Adjustment to 13-month average	⁶	-	-	-	-	-	-	-	-	-	-
90	Cash Working Capital	Line 52 x FBC CWC/Closing GPIS %	2	2	2	2	2	2	2	2	2	2
91	Total Rate Base	Sum of Line 88 to 90	150	285	258	232	205	179	152	125	99	72
92												
93	Equity Return	Line 91 x ROE x Equity %	5	10	9	8	8	7	6	5	4	3
94	Debt Component	⁷	4	8	7	7	6	5	4	4	3	2
95	Total Earned Return	Line 93 + Line 94	10	19	17	15	13	12	10	8	6	5
96	Return on Rate Base %	Line 95 / Line 91	6.54%	6.54%	6.54%	6.54%	6.54%	6.54%	6.54%	6.54%	6.54%	6.54%
97	After- Tax Weighted Average Cost of Capital (WACC)	⁸	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%
98	6 - (Line 51 + Line 58 + Line 65) x [(Days In-service/365)-1/2]											
99	7 - Line 91 x (LTD Rate x LTD% + STD Rate x STD %)											
100	8 - ROE Rate x Equity Component + [(STD Rate x STD Portion) + (LTD Rate x LTD Portion)] x (1- Income Tax Rate)]											
101												

FortisBC Inc.
EV Charging Stations Review - 100 kW Stations
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Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
102	Income Tax Expense											
103	Earned Return	Line 95	10	19	17	15	13	12	10	8	6	5
104	Deduct: Interest on debt	Line 94	(4)	(8)	(7)	(7)	(6)	(5)	(4)	(4)	(3)	(2)
105	Add: Depreciation Expense	Line 58	-	67	67	67	67	67	67	67	67	67
106	Deduct: CIAC Amortization	Line 71	-	(40)	(40)	(40)	(40)	(40)	(40)	(40)	(40)	(40)
107	Deduct: Capital Cost Allowance	Line 119 (Include CCA from 2018)	(240)	(3)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	(1)
108	Taxable Income After Tax	Sum of Line 103 to 107	(234)	34	33	33	32	31	30	29	29	28
109	Income Tax Rate		27%	27%	27%	27%	27%	27%	27%	27%	27%	27%
110												
111	Total Income Tax Expense	Line 108 / (1 - Line 109) x Line 109	(87)	13	12	12	12	11	11	11	11	10
112												
113	Capital Cost Allowance											
114	Opening Balance	Proceeding Year, Line 120	-	35	32	29	27	25	23	21	19	18
115	Additions to Plant	Line 38	746	-	-	-	-	-	-	-	-	-
116	Less: AFUDC	Line 37	(21)	-	-	-	-	-	-	-	-	-
117	Less: CIAC	Line 40	(450)	-	-	-	-	-	-	-	-	-
118	Net Addition for CCA	Sum of Line 115 through 117	275	-	-	-	-	-	-	-	-	-
119	CCA	[Line 114 + (Line 118/2)] x CCA Rate	(240)	(3)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	(1)
120	Closing Balance	Line 114 + Line 118 + Line 119	35	32	29	27	25	23	21	19	18	16
121												
122	Carbon Credit											
123	Credit (Tonne)		91	119	151	185	222	275	344	430	521	554
124	Carbon Price (\$/tonne)		200	200	200	200	200	200	200	200	200	200
125	Carbon Credit Revenue (\$)	Line 123 x Line 124	18	24	30	37	44	55	69	86	104	111
126												

FortisBC Inc.
EV Charging Stations Review - 100 kW Stations
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Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
127	NR Can Repayment											
128	Revenue	Schedule 2, Line 10 x Schedule 2, Line 14	33	48	65	83	103	132	169	214	263	281
129												
130	<u>Expenses</u>											
131	Cost of Electricity	Schedule 2, Line 4	59	77	83	93	99	106	116	128	142	149
132	Operation & Maintenance	Line 3	16	33	34	34	35	34	34	35	36	36
133	Property Taxes	Line 4	-	-	(1)	1	1	1	1	1	0	0
134	Depreciation Expense	Line 5	-	67	67	67	67	67	67	67	67	67
135	Amortization Expense on CIAC	Line 6	-	(40)	(40)	(40)	(40)	(40)	(40)	(40)	(40)	(40)
136	Other Revenue - Carbon Credits	- Line 125	(18)	(24)	(30)	(37)	(44)	(55)	(69)	(86)	(104)	(111)
137	Total Expenses	Sum of Lines 131 through 136	57	112	112	118	116	112	109	105	100	101
138												
139	Operating Income	Line 128 - Line 137	(24)	(64)	(47)	(34)	(13)	19	60	110	163	180
140	Interest	Line 94	4	8	7	7	6	5	4	4	3	2
141	Earnings Before income taxes	Line 139 - Line 140	(28)	(72)	(55)	(41)	(19)	14	55	106	160	178
142	Income tax (recovery)	Line 111	(87)	13	12	12	12	11	11	11	11	10
143	Net Earnings	Line 141 - Line 142	59	(85)	(67)	(53)	(31)	3	44	95	149	167
144												
145	Cumulative Net Earnings	Cumulative Sum of Line 143	59	(26)	(93)	(146)	(177)	(174)	(130)	(35)	114	282
146	Repayment to Canada (True/False)	If both Line 143 & 145 are positive, then TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	TRUE
147												
148	Repayment Ratio	NR Can funding as ratio of Capital	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%
149	Repayment Amount	If Line 146 = TRUE, then Line 148 x Line 143	37	-	-	-	-	-	-	-	93	104

FortisBC Inc.
EV Charging Stations Review - 100 kW Stations
Schedule 2
September 2020
(\$000s), unless otherwise stated

Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1												
2	Incremental Annual Revenue Requirement	Cost of Service, Line 11	(73)	112	69	66	60	50	41	30	19	108
3	Subtract: FBC Power Purchase	-1 x Cost of Service, Line 2	(6)	(8)	(11)	(13)	(17)	(21)	(27)	(35)	(44)	(48)
4	Add: FBC Commercial Service Rate (RS 21)		59	77	83	93	99	106	116	128	142	149
5	Total Annual Revenue Requirement from EV Customer	Sum of Line 2 to Line 4	(20)	180	141	145	142	135	130	124	117	209
6	PV of Revenue Requirement (After-tax WACC of 5.76%)	Line 2 / (1 + Line 19)^Yr	(19)	161	119	116	107	97	88	79	71	119
7	Total PV of Annual Revenue Requirement	Sum of Line 6	938									
8												
9	Levelized \$ per Minute Rate											
10	Number of Charging Minutes per Year		71,953	104,393	140,305	179,793	222,934	284,211	364,113	463,103	567,923	606,296
11	PV of Charging Minutes per year	Line 10 / (1 + Line 19)^Yr	68,032	93,326	118,596	143,693	168,463	203,065	245,978	295,803	342,989	346,211
12	Total PV of Charging Minutes per year	Sum of Line 11	2,026,154									
13												
14	Levelized \$ per minute rate to recover Cost of Service	Line 7 x 1,000 / Line 12	0.46									
15	Transaction Fee Percentage		15%									
16	Levelized \$ per minute rate (incl. Trans Fee)	Line 14 / (1 - Line 15)	0.54									
17												
18												
19	After- Tax Weighted Average Cost of Capital (WACC)	¹	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%
20	1 - ROE Rate x Equity Component + [(STD Rate x STD Portion) + (LTD Rate x LTD Portion)] x (1 - Income Tax Rate)]											

ORDER NUMBER

G-xx-xx

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

and

FortisBC Inc.
Application for Approval of Rate Design and Rates for
Electric Vehicle Direct Current Fast Charging Service

BEFORE:

[Panel Chair]
Commissioner
Commissioner

on **Date**

ORDER

WHEREAS:

- A. On December 22, 2017, FortisBC Inc. (FBC) submitted an application to the British Columbia Utilities Commission (BCUC) for Approval of Rate Design and Rates for Electric Vehicle (EV) Direct Current Fast Charging (DCFC) Service and Tariff Rate Schedule 96 (Original Application) pursuant to sections 59 to 61 and 90 of the *Utilities Commission Act* (UCA);
- B. On January 12, 2018, the BCUC issued Order G-9-18 and the associated Reasons for Decision that approved Rate Schedule 96 as set out in the Original Application on an interim basis, and adjourned the regulatory process until further notice;
- C. By Order G-10-18 dated January 12, 2018, the BCUC established an inquiry (Inquiry) into the regulation of EV charging service in British Columbia. The Inquiry was undertaken in two phases. On June 24, 2019, the BCUC issued the final report on the Inquiry. In that report, the Panel reviewed the role of the non-exempt public utility's participation in the EV charging market, and made recommendations to the Provincial Government concerning the regulatory framework for these non-exempt public utilities;
- D. By Order in Council No. 339 (OIC 339/20), as approved and issued on June 22, 2020, the Lieutenant Governor in Council amended the Greenhouse Gas Reduction (Clean Energy) Regulation (GGRR) to add Section 5 regarding prescribed undertaking – electric vehicle charging stations;
- E. By Order G-223-20, dated August 28, 2020, the BCUC established an amended regulatory timetable for the review of the Original Application including for FEI to file an evidentiary update to the Original Application;

- F. On September 30, 2020, FBC withdrew its Original Application and submitted a Revised Application (Application), including evidence showing that all of FBC's existing and planned EV charging stations are prescribed undertakings pursuant to section 18 of the *Clean Energy Act* and section 5 of the GGRR. The Application, as amended through responses to information requests, requests the following approvals pursuant to sections 59 to 61 of the UCA:
- i. permanent approval of Rate Schedule 96 for EV charging at FBC-owned EV charging stations, consisting of a rate of \$0.26 per minute for 50 kW stations and \$0.54 per minute at 100 kW stations;
 - ii. approval that Rate Schedule 96 shall not be subject to general rate increases, unless otherwise directed by the BCUC;
 - iii. approval of a straight line 10 percent depreciation rate for FBC's EV charging stations;
 - iv. approval for FBC to include the assets associated with the EV charging stations, and related revenues and expenses, in FBC's regulated accounts, as set out in Section 4 of the Application and
 - v. approval pursuant to section 52 of the UCA to transfer ownership and operation of the DCFC stations in New Denver and Nakusp to the British Columbia Hydro and Power Authority (BC Hydro); and
- G. The BCUC has reviewed and considered the Application and determines that the requested approvals should be granted.

NOW THEREFORE pursuant to sections 52, 59 to 61 and 90 of the UCA, the BCUC orders as follows:

1. Electric Tariff Rate Schedule 96 for EV charging is approved on a permanent basis for EV charging at FBC-owned EV DCFC charging stations, consisting of a rate of \$0.26 per minute for 50 kW stations and \$0.54 per minute at 100 kW stations, effective 30 days from the date of this Order.
2. Rate Schedule 96 will be exempt from general rate changes unless otherwise directed by the BCUC.
3. FBC is approved to include the assets associated with its EV DCFC charging stations, and related revenues and expenses, in FBC's regulated accounts as set out in Section 4 of the Application
4. FBC's proposed straight line 10 percent depreciation rate for FBC-owned EV DCFC charging stations is approved.
5. FBC is approved to transfer ownership and operation of the DCFC stations in New Denver and Nakusp to BC Hydro.
6. FBC is directed to comply with all other BCUC Directives as contained in the accompanying Decision.
7. FBC is directed to file Rate Schedule 96 with the BCUC for endorsement within 15 days from the date of this Order.

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