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March 28, 2019

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC
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Attention: Mr. Patrick Wruck, Commission Secretary and Manager, Regulatory Support

Dear Mr. Wruck:

**Re: British Columbia Utilities Commission (BCUC) Inquiry into the Regulation of Electric Vehicle (EV) Charging Service (Inquiry) – Phase 2 ~ Project No. 1598941
FortisBC Inc. (FBC) Final Argument**

In accordance with BCUC Order G-50-19 establishing the Regulatory Timetable for final and reply arguments on the revised scope in Phase 2 of the Inquiry, attached please find FBC's Final Argument.

If further information is required, please contact David Perttula at (604) 592-7470.

Sincerely,

FORTISBC INC.

Original signed:

Doug Slater

Attachment

cc (email only): Registered Parties

BEFORE THE BRITISH COLUMBIA UTILITIES COMMISSION

**AN INQUIRY INTO THE REGULATION OF
ELECTRIC VEHICLE CHARGING SERVICE**

**PHASE TWO FINAL SUBMISSION OF
FORTISBC INC.**

March 28, 2019

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PART ONE: INTRODUCTION

1. This submission addresses the ten scope items set out in BCUC Order G-50-19 (the “Phase Two Continuation Order”).
2. In response to the BCUC’s request in the Phase Two Continuation Order that the parties avoid unnecessary repetition in their submissions, in this submission FortisBC Inc.¹ (“FBC”) has provided short descriptions of its positions and grouped a number of the scope items together to focus on the following thematic matters:²
 - (a) Provision of electric vehicle (“EV”) charging service by non-exempt public utilities will stimulate the market rather than undercutting other providers (in response to Item 1 of the scope items);
 - (b) Cross-subsidization should not be an issue and can be revisited at a later date (in response to Items 3, 4 and 6 of the scope items);
 - (c) Regulatory matters such as the potential for stranded assets and the obligation to serve can be addressed in the ordinary course of regulatory proceedings (in response to Items 5 and 8 of the scope items);
 - (d) No new rate classes are required at this time (in response to Items 11 and 12 of the scope items);
 - (e) The *Electrical Safety Regulation* (the “ESR”) applies generally to EV charging equipment (in response to Item 13 of the scope items); and
 - (f) EV charging is already a prescribed undertaking under the *Greenhouse Gas Reduction (Clean Energy) Regulation* (the “GGRR”), but further clarity is desirable (in response to Item 14 of the scope items).

¹ EV charging service is more germane to FBC as an electric utility than FortisBC Energy Inc. For that reason, active intervention in the Inquiry therefore has been by FBC.

² However, FBC also relies on the more expansive responses to the scope items it provided in Exhibit C12-6, FBC’s Phase Two Evidentiary Filing.

PART TWO: SUBMISSIONS ON PHASE TWO SCOPE ITEMS

A. ITEM 1: PROVISION OF EV CHARGING SERVICE BY NON-EXEMPT PUBLIC UTILITIES WILL STIMULATE THE MARKET RATHER THAN UNDERCUTTING OTHER PROVIDERS

3. FBC believes that the main barrier to entry and subsequent participation in the EV charging market is profitability, which in turn depends on substantial EV adoption and higher utilization rates of charging stations. Charging stations owned and operated by non-exempt public utilities will help to accelerate EV adoption and as a result foster participation by other providers as EV adoption grows.³

4. There is no significant risk that non-exempt public utilities will undercut exempt service providers or that any incidental lower rates that may occasionally occur will be detrimental to market development of EV charging service.

5. One reason for this is that FBC expects to design rates that recover the costs of owning and operating direct current fast charging (“DCFC”) stations.⁴ FBC also expects that non-exempt public utilities such as BC Hydro and FBC will continue to be subject to rate regulation by the BCUC. Indeed, FBC’s currently approved interim rates for DCFC service (\$9 per half hour) are greater than rates charged by exempt providers such as the City of Vancouver (\$8 per half hour).⁵

6. As utilities are not typically considered to be low-cost service providers, it is much more likely that exempt service providers will be willing or able to undercut the rates offered by non-exempt providers. FBC believes that the exempt entities providing EV charging service will mostly be large and sophisticated organizations, such as municipalities, shopping malls, EV charging equipment providers such as Chargepoint and Greenlots, and automotive

³ Exhibit C-12-3, BCUC-FBC IR 1.1.2.

⁴ FBC believes it is appropriate to set utility-specific pooled rates for EV service on a program basis for a period of time (for example, five years). At the end of this period, the utility would re-apply for a new pooled rate in conjunction with an overall review of the evolution of the EV charging station market. This will contribute to making the EV program dynamic and responsive to changes in the marketplace. See Exhibit C12-3, BCUC-FBC IR 1.19.2.

⁵ Exhibit C-12-6, FBC Phase Two Evidence, p. 5.

manufacturers. Parties such as these will have many ways to incorporate the costs of providing EV charging service into their overall business models and may have access to capital at comparable costs to a public utility.⁶

7. FBC believes that non-exempt public utilities should provide DCFC charging services wherever there is existing or expected demand that is not being adequately served. The existing or expected demand may be in locations that are remote but where service is required to provide a continuous charging network, or in more populated areas with higher demand where existing services are insufficient.⁷

B. ITEMS 3, 4 AND 6: CROSS-SUBSIDIZATION IS NOT A SIGNIFICANT CONCERN AND CAN BE REVISITED

8. EV charging service offered by non-exempt public utilities should not constitute a separate class of service from which costs associated with EV charging infrastructure and service are recovered.⁸ FBC believes that requiring non-exempt public utilities to own and operate EV charging facilities in either a separate class of service or a non-regulated subsidiary would be a deterrent to their participation in growing the EV charging market and could interfere significantly with the achievement of public policy objectives such as reducing GHG emissions in the transportation sector.

9. Depending on how EV charging demand materializes over the coming years, there is potential that EV charging service revenues will exceed the incremental costs imposed on the electric system and generate net benefits for other ratepayers. FBC believes that the potential for net benefits for all ratepayers, as well as the achievement of public policy objectives which are beneficial to all, support the appropriateness of allocating net costs or benefits of non-exempt utility EV charging service on a broader basis than just to EV charging service customers.

⁶ Exhibit C-12-6, FBC Phase Two Evidence, pp. 5-6.

⁷ Exhibit C-12-6, FBC Phase Two Evidence, p. 6.

⁸ Exhibit C-12-6, FBC Phase Two Evidence, p. 8.

10. FBC's EV charging service application provides a tangible example of how this could occur. FBC's proposed rate to recover the capital and operating costs of its EV charging station service is based on the cost of service of stations, net of contributions in aid of construction received from other parties. It is likely that in early years of operation, costs will exceed revenues and could result in small deficits based on the conventional components of cost of service analysis. However, as the demand grows over the coming years, the service may generate a net benefit to general ratepayers over time, including the potential to generate additional net benefits under the province's *Renewable and Low Carbon Fuel Requirements Regulation*.⁹

11. Within the rates of a regulated utility, there exists some degree of inevitable and accepted inter-class and intra-class cross subsidization owing for example, to variations in customer location, load factor, and rate class cost recovery.¹⁰ The possibility of modest amounts of cross-subsidization for EV charging service needs to be balanced against the need to accelerate EV adoption, in support of government climate action goals and policy, as well as against the potential for net benefits to be provided to other rate classes.¹¹

12. Because of the expected growth in the EV market, FBC believes that the potential for significant cross-subsidization from other ratepayers is small. This situation with EV charging stations is analogous to other utility projects such as system extensions, or larger projects such as transmission lines or substations, where a project is constructed in advance of the load growth, and incremental revenues from sources such as new customer attachments do not fully recover the costs right away.¹²

13. However, FBC recognizes that the EV market is at an early stage and will monitor its development and rate-related issues that may emerge in its service area and elsewhere in BC, as well as in other jurisdictions. The issue of cross-subsidization should be revisited after 5-

⁹ Exhibit C12-2, FBC Phase One Evidence, p. 20.

¹⁰ Exhibit C-12-6, FBC Phase Two Evidence, p. 9.

¹¹ Exhibit C-12-6, FBC Phase Two Evidence, pp. 9-10.

¹² Exhibit C12-2, FBC Phase One Evidence, p. 20.

10 years when rate impacts of EV charging stations (positive or negative) become clearer. Until such time, it is difficult to predict, measure or verify with accuracy any level of cross-subsidization and therefore there is no need at this time to set a cap on any cross-subsidization, if any exists.

C. ITEMS 5 AND 8: STRANDED ASSETS AND OBLIGATION TO SERVE CAN BE ADDRESSED IN THE USUAL COURSE

14. Though EV charging service is an emerging area, the treatment of potential future stranded assets and the obligation to serve are well established. Established regulatory practices can continue to be applied with respect to these matters.

(a) Stranded Assets can be Addressed in the Usual Course (Item 5)

15. FBC believes that any determination regarding stranded assets should be made at the time the assets are found to be stranded and using the same or similar processes as for other utility assets. FBC believes that any such process should recognize and give considerable weight to the fact that its EV charging service assets were prudently incurred investments made in support of government policy.

16. To the extent that there are stranded assets at some point in the future, FBC does not believe that the financial impacts would be significant given the modest costs involved. For example, the cost to install a DCFC charging station is currently approximately \$50,000 to \$100,000.¹³

17. When considering the potential for stranded assets, it is important to note the current stage of market development. For example, in an expanding market, the risk is believed to be less of a factor as opposed to when the market has reached maturity or is shrinking. The EV market is in its infancy stage. This suggests that the older charging stations will still be needed and supports FBC's claim that stranded asset risk for EV charging stations is low.¹⁴

¹³ Exhibit C12-2, FBC Phase One Evidence, p. 4.

¹⁴ Exhibit C12-3, BCUC-FBC IR 1.15.1.

18. There are also other approaches for minimizing the possibility of stranded EV charging service assets for non-exempt public utilities and minimizing any related financial consequences.¹⁵ For example, existing DCFC equipment can be redeployed in another location in the event that reasons are found to place newer technology at a particular site. Older equipment could also be kept in place when new higher capacity chargers are installed to alleviate station congestion.¹⁶ Furthermore, existing EV charging stations may be upgradable to newer technologies at minor costs (since much of the infrastructure, such as the land, charging stalls, other civil work and electrical service) would remain in place.¹⁷

(b) Obligation to Serve can be Addressed in the Usual Course (Item 8)

19. If EV charging service is provided by a non-exempt public utility, then there is an obligation on an electric utility to provide an EV charging service as stated in section 39 of the *Utilities Commission Act* (the “UCA”). This obligation would apply once the EV charging infrastructure is built and is in-service for public use.¹⁸

20. The duty to serve would not, however, automatically compel a public utility to construct new charging stations. If there is a location that is uneconomic, and where no applicant is prepared to cover the extension costs (i.e., in keeping with applicable tariff provisions), the obligation to serve would not be present. However, the BCUC could still order that service be provided. This scenario strongly supports the FBC proposal that EV charging undertaken by a non-exempt public utility should remain within the regulated entity, with capital additions forming part of the regulated rate base. It is unclear to FBC how, short of direct government investment, these installations would otherwise be funded.

¹⁵ Exhibit C-12-6, FBC Phase Two Evidence, pp. 10-11.

¹⁶ Exhibit C1-4, BCUC-BC Hydro IR 1.14.3.

¹⁷ Exhibit C-12-6, FBC Phase Two Evidence, pp. 10-11.

¹⁸ Exhibit C12-3, BCUC-FBC IR 1.6.5.

D. ITEMS 11 AND 12: NO NEW TARIFFS ARE REQUIRED AT THIS TIME

21. In the Phase Two Continuation Order, the BCUC noted that it will provide high level guidance for future applications with respect to the wholesale provision of electricity for the purpose of EV charging.

22. This is consistent with FBC's view that EV charging does not require any special provision or rate for the supply of power to the EV charging station itself, and that electricity supply to these EV chargers can be accommodated utilizing existing rates, which include optional time of use (TOU) rates.¹⁹

23. FBC does not currently expect that EV charging stations will require rates for electricity service that are separate from the existing Residential or Commercial rates that would apply to the premises to which these chargers are attached or as standalone services.²⁰

24. However, FBC recognizes that the EV market is at an early stage and will monitor its development and rate-related issues that may emerge in its service area and elsewhere in BC, as well as in other jurisdictions.

E. ITEM 13: THE *ELECTRICAL SAFETY REGULATION* APPLIES GENERALLY TO EV CHARGING EQUIPMENT

25. As described in FBC's Phase Two Evidence, EV charging stations are located downstream of the utility meter, which has traditionally been the demarcation point between utility and customer equipment. While FBC acknowledges that there is some ambiguity as to whether the *UCA* definition of distribution equipment includes EV charging equipment, particularly in the case of non-exempt public utilities, this electrical equipment is not used directly in the distribution of electrical energy and therefore the exclusion of public utilities as set out in section 3 (1) of the *ESR* does not apply and instead section 3 (2) applies.

¹⁹ Exhibit C-12-6, FBC Phase Two Evidence, p. 16.

²⁰ Exhibit C-12-6, FBC Phase Two Evidence, p. 8.

26. EV charging equipment provides a specialized end-use service to allow the chemical storage of energy in an EV battery. As such, this equipment should still be subject to the *ESR* for both non-exempt and exempt utilities/providers.

27. This is consistent with the position taken by Technical Safety BC in its letter of comment that EV supply equipment is not “utility distribution equipment” and therefore is not exempt from the *ESR*, whether operated by an exempt or non-exempt utility.²¹

28. FBC’s Phase Two Evidence included a description of an alternative approach²² to the language that is used in the Exemption Order,²³ but would require an amendment to the *UCA*.

29. Regardless of the mechanism that is in place, FBC submits that the BCUC should refrain from exercising oversight of EV charging equipment to the extent that another agency is already providing oversight, so as to reduce any perceived restrictions that could limit the development of the EV charging market.

F. ITEM 14: EV CHARGING IS ALREADY A PRESCRIBED UNDERTAKING, BUT FURTHER CLARITY IS DESIRABLE

30. As described in FBC’s filings in both phases of the Inquiry, the existing electrification section of the *GGRR* already allows public utilities to install, own and operate EV charging stations as prescribed undertakings.²⁴

31. Projects or programs respecting technology that may enable a utility’s customers to use electricity instead of other sources of energy that produce more GHG emissions are considered to be a prescribed undertaking for the purposes of section 18 of the *Clean Energy Act*.

²¹ Exhibit E-22.

²² Exhibit C-12-6, FBC Phase Two Evidence, pp. 14-15.

²³ BCUC Order G-66-19.

²⁴ These and FBC’s other submissions with respect to the *GGRR* are set out in Exhibit C12-4, FBC’s Phase One Final Submission, paras. 14-24. More specifically, FBC identified in para. 17 that subsections (3)(c) and (3)(e) of section 4 of the *GGRR* are those most pertinent to EV charging service.

32. The development of EV charging infrastructure contributes toward the achievement of the provincial energy and climate action objectives. Deployment of EV charging stations promotes the use of EVs in BC and supports the use of clean or renewable resources, reduces BC GHG emissions, encourages individuals to switch to lower GHG emission fuel sources, encourages communities to reduce GHG emissions and use energy efficiently, and encourages economic development and the creation and retention of jobs.

33. The development of EV charging infrastructure stations is consistent with the intent of the existing prescribed undertakings, particularly considering that EV charging stations will enable customers to use electricity for transportation rather than more carbon-intensive fuel sources.

34. However, FBC agrees with the submissions that have been made by other parties that additional clarity on the provincial government's intentions in this area could be achieved through *GRR* amendments specific to EV charging service.

35. The parameters of any prescribed undertakings specific to EV charging programs would be publicly available for utilities, stakeholders and the BCUC to refer to in assessing non-exempt public utility participation in this sector. *GRR* amendments specific to EV charging service would help to make the ground rules applicable to non-exempt public utility participation in the sector clear to all stakeholders and the BCUC. With these ground rules being established, non-exempt public utilities would be able to proceed more effectively and efficiently to help achieve provincial policy goals pertaining to GHG emission reductions in the transportation sector.

36. A recommendation from the BCUC that the *GRR* be amended to specifically allow for the deployment of EV charging stations and related infrastructure by public utilities as prescribed undertakings would facilitate further investment in and development of EV charging infrastructure to accelerate the achievement of climate action and other government policy goals.

37. In Phase 1, BC Hydro proposed that an amendment be made to section 4 of the *GRR*, by adding the following subsections:²⁵

(5) A public utility's undertaking that is in a class defined as follows is a prescribed undertaking for the purposes of section 18 of the Act:

(a) the public utility constructs or operates an electric vehicle charging station.

38. While FBC believes that such an amendment would be reasonable, if such an amendment is proposed, FBC submits that the language should also include "purchases" in order to allow for a public utility to acquire an EV charging station (in addition to the ability to construct one). This would be more consistent with language already found in the *GRR* with respect to compressed natural gas fuelling stations²⁶ and liquefied natural gas fuelling stations.²⁷

²⁵ Exhibit C1-5, BC Hydro Phase One Submission, Appendix B.

²⁶ Section 2(2)(a).

²⁷ Section 2(3)(a).

PART THREE: CONCLUSION

39. The provision of EV charging service by non-exempt public utilities should be encouraged. It will stimulate the market rather than undercutting other providers. Cross-subsidization from other non-exempt public utility customers is not a significant concern at this time and can be addressed in the future if the need arises. Many of the matters related to EV charging service raised in the Phase Two proceeding can be addressed as needed in other future proceedings.

40. While EV charging is already a prescribed undertaking under the *GGRR*, a recommendation from the BCUC that the *GGRR* be amended to specifically allow for the deployment of EV charging stations and related infrastructure by public utilities as prescribed undertakings would facilitate further investment in and development of EV charging infrastructure to accelerate the achievement of climate action and other government policy goals.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

Dated:

March 28, 2019

[original signed by Doug Slater]

Doug Slater