

BRITISH COLUMBIA UTILITIES COMMISSION

**Inquiry into the
Regulation of Electric Vehicle Charging Service,
Phase Two**

**Final Argument
by
BC Sustainable Energy Association and Sierra Club BC**

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1.0 Introduction

This is the final argument of the interveners BC Sustainable Energy Association and Sierra Club BC (BCSEA-SCBC) in Phase Two of the Commission’s Inquiry into the Regulation of Electric Vehicle Charging Service.

This argument responds to the revised list of questions set out in the Inquiry Panel’s March 6, 2019 Decision and Order G-50-19¹ that resulted from the February 28, 2019 procedural conference.

In the March 6 decision, the Inquiry Panel noted that “the Province of BC ‘strongly supports investments in electric vehicle charging services by [the] non-exempt public utilities’ and that ‘it would be appropriate for non-exempt public utilities to recover those costs from ratepayers.’ For that reason, the Panel accepted that “there is a role for non-exempt utilities in providing public EV charging services” and it narrowed the scope of Phase 2 of the Inquiry to the manner in which non-exempt public utilities should participate in providing public EV charging services. The Panel removed scope items relating to whether non-exempt public utilities should provide EV charging services. In addition, the Panel clarified that “there is no prohibition on non-exempt public utility involvement in the provision of EV charging services and, given the revised scope of this Inquiry, there will be no recommendation otherwise.”²

In the March 6 decision, the Panel also acknowledged the importance of scope items 13 (technical safety) and 14 (GGRR³ prescribed undertaking) and said it “will issue its recommendation on these issues as soon as possible following receipt of final and reply argument in accordance with the amended regulatory timetable.”⁴

Notably, the Inquiry Panel’s November 2018 Phase One Inquiry Report has already produced a step forward. On March 22, 2019, the Commission issued an exemption order⁵ concerning EV charging service for compensation by entities that are neither ‘otherwise regulated public utilities’ nor excluded from the definition of public utility (e.g., municipalities and, in certain circumstance, landlords or employers). The exemption order was given prior approval by the Minister of Energy as recommended by the Commission in the Phase One Report. The order under sections 88(1) and 88(3) of the UCA exempts the subject providers of EV charging services from regulation by the

¹ Exhibit A-41.

² Exhibit A-41, Appendix A, p.12.

³ Greenhouse Gas Reduction (Clean Energy) Regulation, B.C. Reg. 102/2012.

⁴ Exhibit A-41, Appendix A, p.12.

⁵ Order G-66-19.

Commission under Part 3 of the UCA, except for the provisions of sections 25 and 38 relating to safety only. The exemption order expressly includes a landlord or a strata corporation that provides EV charging service for compensation. BCSEA-SCBC support the exemption order.

BCSEA-SCBC's overarching position is that the Commission's approach to the regulation of EV charging services should be designed to foster the rapid development of electric vehicles in all B.C. transportation sectors, including passenger, light commercial and heavy duty. Encouraging the adoption of EVs in substitution for fossil-fuel vehicles is in the public interest and consistent with the B.C. energy objectives under the *Utilities Commission Act* and the *Clean Energy Act*.

2.0 BCSEA-SCBC Responses to the Revised Questions

A. Regulatory framework for non-exempt public utilities providing EV charging service

In the March 6, 2019 decision coming out of the procedural conference,⁶ the Inquiry Panel determined that most of the scope items (questions) are best addressed by the BCUC in the context of specific applications (i.e., by non-exempt public utilities), rather than in Phase 2 of the Inquiry. The Panel said it would provide high level guidance on those issues for future applications.⁷ Accordingly, BCSEA-SCBC provide the following responses to the revised questions with a view to contributing to the Panel's high level guidance to the non-exempt public utilities regarding future applications involving these issues.

Q1 (revised). (a) In the absence of price regulation, how can EV charging providers that are not otherwise public utilities (which would be exempt from regulation in accordance with the Panel's recommendation) be protected from being undercut by non-exempt public utilities?

BCSEA-SCBC's view is that the Commission's evaluation of proposed pricing for EVCS by a non-exempt public utility should not be driven solely, or even primarily, by an attempt to protect the financial interests of other providers of EVCS. There is little evidence that undercutting on EVCS pricing by non-exempt public utilities is now, or is likely to become, a significant issue.

BCSEA-SCBC recommend that the Inquiry Panel's guidance to non-exempt public utilities regarding future applications to the BCUC for approval of the pricing of EV charging service (to EV drivers) should include the following points:

- (a) The Commission will regulate the price of public EV charging service provided by non-exempt public utilities.
- (b) The Commission will consider multiple factors in approving a non-exempt utility's proposed price structure for EVCS.
- (c) The Commission's examination will (of course) be within the framework of sections 59-60 of the UCA and will comply with any pertinent legal directions⁸ concerning the utility's recovery of its costs of EVCS.

⁶ Exhibit A-41, Decision and Order G-50-19.

⁷ Exhibit A-41, pdf p.9.

⁸ I.e., statutes, regulations, orders in council.

- (d) The Commission will take into account factors such as the utility's cost of providing the EV charging service,⁹ the expected EVCS revenue (i.e., from EV drivers), the effect of the price on the utility's EVCS revenues.¹⁰
- (e) In addition, the Commission will also consider contextual factors such as the state of development of the EVCS market, prices for EVCS by other providers, and the impact of the subject utility's EVCS prices on the broader EVCS market.

Q1 (revised). (b) Should non-exempt public utilities be restricted to participate only in remote geographical locations that are currently uneconomical for exempt EV charging providers to serve?

BCSEA-SCBC submit that the Commission should advise non-exempt public utilities that applications regarding EVCS are not limited to the provision of EV charging service only in remote geographical locations.

It is currently uneconomic for any entity to provide public EVCS, without an internal or external subsidy, in any area of the Province. In BCSEA-SCBC's view, restricting non-exempt public utilities to providing public EVCS only in remote geographic locations would defeat the purpose of BC Hydro and FBC providing public EVCS in order to kick-start the EV sector in B.C.

On a related point, BCSEA-SCBC favour a postage stamp approach to the pricing of EVCS provided by non-exempt utilities. This is supported by MEMPR.¹¹

Q3 (revised). For EV charging services provided by non-exempt public utilities participating in the EV charging market, should EV charging customers constitute a separate class from which costs associated with EV charging infrastructure is recovered?

In BCSEA-SCBC's view, the Commission should advise non-exempt public utilities that EVCS customers (i.e., EV drivers) need not constitute a separate customer class for cost-recovery purposes.

BC Hydro said in its evidence, "Traditional cost of service to assign the costs of fast charging to a utility class of service comprised of fast charging customers would result in costs to those customers that would be uneconomic and prohibitive to the utilization of the service."¹² BCSEA-SCBC agree with BC Hydro that "at this early stage of market development, an objective of rate setting [for BC Hydro's public DCFC service] may be to set the rate at a reasonable level to recover costs to the extent possible."¹³ In BCSEA-SCBC's view, this point applies to FBC in addition to BC Hydro.

Q4. Should other customer classes of non-exempt public utilities subsidize costs associated with the provision of charging services that can't be

⁹ The utility's cost of providing the EVCS would include the value of the supply electricity. An issue to be determined in the EVCS price proceeding would be whether to value the supply electricity according to the utility's avoided cost or by using a general service tariff as a proxy.

¹⁰ A higher price for EVCS would yield more revenue per charging session but could reduce the number of charging sessions, which could result in lower total revenue.

¹¹ Exhibit C19-12, p.8.

¹² Exhibit C1-2, p.12. And see Exhibit C1-4, BC Hydro response to BCUC IR 1.23.7, pdf p.183.

¹³ Exhibit C1-2, p.12.

recovered from EV charging customers? How much of the cost is it appropriate for them to subsidize – should there be a cap?

In BCSEA-SCBC's view, the Commission's guidance to non-exempt public utilities should acknowledge that it is appropriate for all customers of a non-exempt public utility to contribute to a reasonable extent to covering the otherwise unrecovered costs of public EV charging services provided by the utility during the ramp-up of the EV charging market in B.C.

BCSEA-SCBC do not expect that any internal cross-subsidy of BC Hydro and FBC's public DCFC services would be unlimited in size or permanent in duration. It is also noted that considerable funding for BC Hydro's and FBC's investments in DCFC infrastructure has come from governments (external subsidy) and not from the utilities' ratepayers (internal cross-subsidy).

Q5. If assets are stranded as a result of changing technology or other factors, who should pay for the potential stranded EV charging assets which may be in the non-exempt public utility's rate base?

BCSEA-SCBC submit that the Commission should clarify that if a non-exempt public utility incurs a stranded asset regarding EVCS in the future then the stranded asset will be dealt with at the time it becomes identified, through the generally available regulatory processes, e.g., revenue requirements applications or specific applications, and according to the generally applicable principles for determining 'who pays' in the event of a stranded asset.

In BCSEA-SCBC's view, this recommended approach appropriately reinforces the standard of care applicable to the non-exempt public utility's capital spending on EVCS and the Commission's oversight of such capital spending.

Q6. In the context of BCUC economic regulation, what regulatory justification is required to allow existing utilities to cross subsidize EV charging services? If EV charging services add incremental load, does that justify cross-subsidization? Would the incremental load appear without the subsidization?

In BCSEA-SCBC's view, the Commission should determine that the main regulatory justification for non-exempt public utilities such as BC Hydro and FBC public providing public DCFC service that may require some internal cross-subsidization for a period of time is to reduce GHG emissions in B.C. by displacing the combustion of fossil fuels.

The provision of public DCFC service by BC Hydro and FBC is intended to accelerate the increase in electric load from EV charging. Particularly in the case of BC Hydro, with its medium-term surplus energy position, this acceleration of increased load is likely to be financially beneficial to BC Hydro and hence ratepayers. It should be recognized that this would, in effect, reduce the amount of any cross-subsidization by other ratepayers.

Q8 (revised). Do non-exempt public utilities participating in the EV charging market, have any obligation to serve EV charging customers?

BCSEA-SCBC submit that the Commission should clarify at a guideline level that a non-exempt public utility has an obligation to serve EV drivers at the utility's currently existing public EV charging stations, but it does not have a legal obligation to create a new public

EV charging station upon request. BCSEA-SCBC see this as roughly equivalent to BC Hydro's and FBC's obligation to provide service to a new customer located within a certain distance of an existing distribution line, and the absence of a obligation on BC Hydro and FBC to construct a new distribution line upon request.

Q10. Any other comments that may be helpful to the Panel, given the scope as revised.

BCSEA-SCBC encourage the Commission Panel to endorse at a guideline level the desirability of non-exempt public utilities adopting industry-accepted open standards for data communication, as distinct from proprietary communications protocols, in the implementation of EV charging services.¹⁴

B. Wholesale rate for providers of EVCS

Q11. Is there a need for a specific tariff provision for the wholesale provision of electricity for the purpose of EV charging?

The question is understood to be whether BC Hydro and FBC should have a specific tariff provision for providing electricity to a customer that uses the electricity to provide EV charging services on a commercial basis to EV customers. Existing commercial-scale EVCS providers to whom this topic might apply would include EVCS stations owned and operated by Tesla, DCFC stations owned by BC Hydro and operated by municipalities, general service customers who add commercial-scale EVCS on their existing account, and future commercial-scale EVCS providers (setting aside BC Hydro and FBC). The EVCS could be a public EVCS station or an EVCS station to serve the customer's fleet vehicles. The topic does not include home EV charging.¹⁵

The status quo is that BC Hydro and FBC sell electricity to commercial-scale EVCS providers under an applicable general service rate. For both BC Hydro and FBC, their medium and large general service rates have a demand charge (\$/kW) in addition to an energy charge (\$/kWh) and a customer charge; and their respective small general service rates have only an energy charge and a customer charge (no demand charge).

Most of the commercial-scale EVCS stations in question would have a peak load (kW) that puts them in a medium or large general service rate that has a demand charge. A significant problem is that a rate with a demand charge produces a particularly expensive bill for customers that have a low load factor,¹⁶ and commercial-scale EVCS stations have a particularly low load factor, especially before they have a fully developed customer base.

An additional factor is that BC Hydro's and FBC's public DCFC service may have prices (to the EV driver) based in part on the utility's cost of electricity supply not reflecting a

¹⁴ This has been addressed by various interveners, including Siemens in Exhibit C38-2.

¹⁵ In the Phase One Report, the Inquiry Panel states on p.49, "Please note that we only request submissions on rate design and time of use rates for the wholesale provision of electricity to EV charging stations. We acknowledge that there is a potential issue of rate design for home charging, which also includes net metering for EVs. However, these issues are not in scope for Phase 2." [underline added]

¹⁶ Load factor is the ratio of peak demand to energy demand. A customer with a constant load 24/7 would have a load factor of unity.

demand charge (or equivalent) – although the Commission has not yet made any decisions on this point.

BCSEA-SCBC support consideration of measures that would facilitate the provision of EVCS in B.C. In that context, they would support development of specific rate for commercial-scale EVCS providers. However, they are not sure that there is, as yet, sufficient evidence to conclude that such a rate would be effective in promoting EV charging services.

Q12. If so, how should this wholesale tariff be designed? Is a time of use rate appropriate? Should there be any differences depending on the type of EV charging – Level 1, Level 2, and/or DCFC stations?

If the Commission does encourage BC Hydro and/or FBC to design a rate specifically for the sale of power to commercial-scale EVCS providers, BCSEA-SCBC have the following comments regarding the design of such a rate.

First, it should be clear from the beginning that the rate is going to be concessional, and not strictly cost-of-service based. Trying to achieve a design that is both less-expensive for the EVCS providers and fully recovers from the new rate class the utility's cost of serving the rate class is likely to be an exercise in futility. Starting with the premise that the rate design will be concessional, at least in the early years, would allow the rate design to take into account the sector's particular load shape and energy management opportunities.

Second, a conventional time-of-use energy rate design, with higher prices in high-load hours and lower prices in low-load hours, is unlikely to benefit commercial-scale EVCS providers whose load shape typically reflects more EV charging sessions during the day-time high-load hours and fewer charging sessions during the night-time low-load hours.

Third, reducing or eliminating the demand charge for commercial-scale EVCS providers is likely to be the main opportunity for reducing the commercial-scale EVCS providers' electricity bills.

Fourth, in addition to reduction of BC GHG emissions, in the case of BC Hydro a rationale for a concessional rate for commercial-scale EVCS providers could be the benefit to all ratepayers of load building, given the utility's surplus resource/load balance in the medium term.

Fifth, consideration could be given to a design in which the commercial-scale EVCS providers' cost of supply electricity was equivalent to the implicit cost of supply electricity attributed to the utility's own delivery of public DCFC service.

Sixth, the type of EV charging – Level 1, Level 2, or DCFC – is unlikely to be directly relevant to the design of a specific rate for commercial-scale EVCS providers. The size and shape of the load behind the customer meter matters most. This is likely to be dominated by the characteristics of DCFC, which is especially demand-intensive.

C. Safety of EVCS operations

Q13. Section 3 of the Electrical Safety Regulation states that it “does not apply to a public utility as defined in the Utilities Commission Act in the exercise of its function as a utility with respect to the generation, transmission and distribution of electrical energy”. Further, “distribution equipment” is a defined term in the UCA. Although it seems clear that EV

charging equipment is not “generation or transmission”, the Panel did not make any finding in the Phase 1 Report on whether EV charging infrastructure is “distribution equipment.” The Panel invites submissions on this issue in Phase 2. In responding, Interveners are requested to consider the status of the provider – for example, is the interpretation different for a non-exempt public utility than it would be for an exempt utility or a provider excluded from the definition of a public utility?

It is understood that the general issue is whether EV charging service provided by a public utility in B.C. is regulated for safety by Technical Safety BC, or by the BCUC, and whether this is affected by whether the entity is a non-exempt public utility, an exempt public utility, or excluded from the definition of public utility.

BC Hydro¹⁷ and Technical Safety BC¹⁸ say that EV Supply Equipment (EVSE) in B.C. is regulated by Technical Safety BC. BC Hydro adds that this is the case regardless of whether the EV Supply Equipment is owned by a non-exempt public utility, an exempt utility, or an entity excluded from the definition of a public utility.¹⁹

BC Hydro says that EVSE is covered under the Canadian Electrical Code and the installation, operation and maintenance of the equipment are under the jurisdiction of Technical Safety BC and/or the local authorities with jurisdiction such as municipalities.

Technical Safety BC says that EVSE is regulated by it under the Electrical Safety Regulation because it has determined that “EVSE is not ‘utility distribution equipment’ and, therefore, is not exempt from the [Electrical Safety] regulation.” Technical Safety BC states that EVSE is also not considered utility equipment under the BC Electrical Code, which it says is the B.C. adoption of the Canadian Electrical Code, Part I, Safety Standard for Electrical Installations, Canadian Standards Association Standard C22.1.²⁰

BCSEA-SCBC do not have a comprehensive position on which agency is, or should be, responsible for which aspect of EV charging service conducted by public utilities in B.C. However, they provide the following comments:

- (a) It is clear that an entity that in providing EVCS is excluded from the definition of public utility in the UCA (such as a municipality) is neither regulated by the BCUC in that respect (i.e., in providing EVCS) nor exempted from safety regulation by Technical Safety BC by s.3 of the Electrical Safety Regulation.
- (b) Both non-exempt public utilities and exempt public utilities²¹ are public utilities as defined in the UCA. Therefore, section 3 of the Electrical Safety Regulation includes both when it refers to “a public utility as defined in the *Utilities Commission Act*.”
- (c) BCSEA-SCBC have no reason to doubt the accuracy of BC Hydro’s or Technical Safety BC’s assertions on this topic.
- (d) From a strict legal perspective, even if Technical Safety BC has authority to regulate EVSE by non-exempt or exempt public utilities, that, in and of itself, does not necessarily negate the possibility of the Commission having jurisdiction

¹⁷ Exhibit C3-7, pdf p.16.

¹⁸ Exhibit E-22, footnotes omitted.

¹⁹ Exhibit C3-7, pdf p.16.

²⁰ Exhibit E-22, footnotes omitted.

²¹ “Exempt public utilities” are more literally described as partially-exempt public utilities, because the terms of the Commission’s exemption order (G-66-19) is that they are exempted from Part 3 of the UCA except “sections 25 and 38, with respect to safety only.”

to regulate some or all of the same equipment or activity. However, redundancy may be a factor the Commission takes into account in determine its own jurisdiction under the UCA. And, in any event, unnecessary regulatory duplication is to be avoided.

D. Greenhouse Gas Reduction Regulation

Q14. In Phase 2, the Panel invites submissions from Interveners on whether amendments to the Greenhouse Gas Reduction Regulation to allow public utilities to own and operate EV charging stations as a “prescribed undertaking” are appropriate and if so, the appropriate extent and scope of such undertaking.

Section 18 of the *Clean Energy Act* provides that the Commission must set the rates of a public utility to allow the public utility to recover its costs of “prescribed undertakings” for the purpose of reducing GHG emissions. “Prescribed undertakings” are defined in the Greenhouse Gas Reduction (Clean Energy) Regulation²² under the *CEA*.

BCSEA-SCBC support the Inquiry Panel recommending to the Lieutenant Governor in Council that section 4(3) of the GGR regulation should be amended to add as a prescribed undertaking a program by BC Hydro or by FBC to provide public DCFC service for the purpose of reducing GHG emissions in B.C. This would have the effect of requiring the Commission to allow BC Hydro and FBC to recover in their respective rates the costs of providing DCFC service.

BCSEA-SCBC prefer the GGRR prescribed undertaking approach over a non-legally binding policy direction approach. The prescribed undertaking approach would provide needed certainty and could be utilized by BC Hydro and FBC relatively quickly.

BCSEA-SCBC recognize that consideration should be given to a reasonable limitation or cap on the amount of costs of DCFC service eligible for recovery as a prescribed undertaking.

BCSEA-SCBC’s view is that at the present time the prescribed undertaking should be limited to BC Hydro and FBC. That is, it would not be available to “exempt public utilities”²³ or to existing regulated public utilities other than BC Hydro and FBC.²⁴ BC Hydro and FBC are the two major electricity public utilities in B.C. They have the expertise, resources and commitment to implement DCFC stations available to the public. The possibility of expanding the DCFC prescribed undertaking to other public utilities could be considered in the future.

²² B.C. Reg. 102/2012.

²³ As noted elsewhere in this submission, EVCS providers that are “exempt public utilities” are still “public utilities” under the UCA. Since the existing wording of the GGRR refers to “public utilities” (and not specifically to BC Hydro and FBC), an amendment to the GGRR should be careful to specify the entities to which the prescribed undertaking will apply.

²⁴ FortisBC Alternative Energy Services Inc. applied by letter of March 19, 2019 [Exhibit C39-1] for late intervener registration in order to provide its perspective on the implications of its status as non-exempt public utilities that is not BC Hydro or FBC.

3.0 Conclusion

BCSEA-SCBC appreciate this opportunity to contribute to the Inquiry Panel's deliberations. They look forward to reviewing the submissions of the other participants in the Inquiry.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

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