



August 1, 2018

Mr. Patrick Wruck
Commission Secretary and Manager
Regulatory Support
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC
V6Z 2N3

Dear Mr. Wruck

Re: BCUC Regulation of Electric Vehicle Charging Services Inquiry

**Submission from: The Victoria EV Association
(dba the Victoria Electric Vehicle Club)**

Attached please find our submission in response to Order G-119-18 Appendix A dated July 4, 2018.

The Commission's questions and issues are reprinted in black text with the Victoria EV Association responses in blue text.

For any clarifications or further information please do not hesitate to contact us.

Yours very truly

A handwritten signature in black ink that reads "James Locke". The signature is written in a cursive style.

James Locke, President
Victoria Electric Vehicle Association
info@victoriaevclub.com

Attach (1)



British Columbia Utilities Commission
Inquiry into the Regulation of Electric Vehicle
Charging Services (2018)
Project # 1598941

Response to Order G-119-18 Appendix A
from:
The Victoria Electric Vehicle Association
-dba The Victoria Electric Vehicle Club

August 1, 2018

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First Phase Issues

The first phase of the Inquiry will address the following issues:

- Do the words "for compensation" in the definition of public utility mean that a person who does not expressly require customers to pay for charging services but instead recovers the cost of charging from other services provided to the customers is a "public utility"?

Response:

The Oxford definition¹ of "compensation" includes the synonyms: recompense, repayment, payment, reimbursement, remuneration, requital, indemnification, indemnity, redress, and satisfaction. It could be argued that the term "compensation" includes cost recovery (repayment)

In order to exclude persons (corporate entities) from recovering costs from being a public utility an exception could be required within the public utility definition such as "with the exception of those persons (entities) receiving a recovery of costs". This could lead to a requirement to define "costs" or "recovery costs" and a determination how and when they might apply.

Rather than seek a remedy through the core definition of "public utility", it is suggested that the two other options be used as outlined in the next response below.

- Should entities not otherwise public utilities supplying electricity to EV end users be regulated at all.

Response

The Victoria EV Association has previously recommended consideration of regulation in the case of DCFC charging for the purposes of establishing a tariff cap and for service reliability, and continuity considerations. It is our understanding that entities cannot be brought within the scope of the General Tariff or Order or other section requirements of the Act unless they fall within the definition of being a public utility and are therefore regulated.

However, in the case of AC (alternating current or Level 1 and Level 2 charging) the primary concern was about fee transparency and that the electricity portion of the fees levied by commercial EV AC charging providers to the general public, was disclosed.

¹ <https://en.oxforddictionaries.com/definition/compensation>

In view of the desirability of meeting the needs of public, private and regulatory stakeholders and in consideration of the issue with the current definition of “public utility” the Victoria EV Association proposal would be to:

- a) Leave the core definition of public utility as is but
- b) Use the exclusionary (“but does not include”) section of the definition to exclude those providing AC² EV charging services – effectively deregulating AC charging by adding text to the effect:
(a public utility does not include)
“a person not otherwise a public utility, who provides AC electric vehicle charging services”
- c) Use the Class exemption to regulate DCFC services³ and to determine a tariff based on an upper price cap that does not discourage private sector participation and only consider the application of sections for DCFC services that may be warranted. However, if the direction would be to establish a fixed DCFC rate as opposed to a cap, the Association would have serious concerns about ensuring sufficient competition and private sector participation in the DCFC marketplace.

A nine point rationale for this approach is included under “Straw Man Argument” below

- Inasmuch as public utilities such as BC Hydro and FBC to participate in the EV market as owners or operators of EV charging stations, clarity is needed on whether BC Hydro and FBC are permitted to invest in EV charging stations as a prescribed undertaking under section 18 of the Clean Energy Act and section 4 of the GRR

Response:

Section 18 appears to clearly apply in terms of the public utilities addressing carbon emissions
From the GRR:

- “to encourage the public utility’s customers, or persons who may become customers of the public utility, to use electricity, instead of other sources of energy
- “educating or training those customers respecting energy use and greenhouse gas emissions, carrying out public awareness”
- “providing funds to those persons to assist in the acquisition, installation or use of equipment that uses or affects the use of electricity; “
- “program(s) to encourage the public utility’s customers, or persons who may become customers of the public utility, to use electricity instead of other sources of energy”
- “providing funds to persons who design, manufacture, sell, install or, in the course of operating a business, provide advice respecting equipment that uses or affects the use of electricity, and
- “at the time the public utility decides to carry out the undertaking, the public utility reasonably expects the undertaking to be cost effective”

² An alternative would be to specify “charging services above X kW” but this is viewed as unnecessarily technical, less easily understood, and potentially discriminatory in the an “overlap” area between AC and DCFC capability at around 20 kW as some OEMS may offer twin on-board 10 kW AC charging capability.

³ Victoria EV Association submission April 4, 2018 Page 3, Item 12

It is the view of the Victoria EV Association that there is adequate direction for BC Hydro and FBC to undertake EV infrastructure projects as outlined in the GRR provided that they meet the Section 4 requirements of being cost effective.

In the Association's view a holistic approach should be used to cost effectiveness. For example the initial losses on the installation of DCFC stations should be included with the gains from increases home charging and other revenues from an increase in the adoption rate of EVs. Viewed separately, investments in DCFCs may not pass a cost effectiveness test but DCFCs are an integral part of increasing EV adoption rates (and hence home charging revenues)

The requirement for cost effectiveness would be expected to be met by those projects and programs that would be cost effective such as those programs identified by Hydro Quebec and other North American Utilities⁴ These programs involve investments in DCFC and other EV infrastructure and related initiatives to encourage expanded EV ownership and a new revenue stream from EV charging.

Straw Man Argument

In order to facilitate intervener's submissions, the Panel invites interveners to provide arguments on the following straw man regulatory framework:

Entities not otherwise public utilities will, with respect to the provision of electric vehicle charging services, be exempt from Part 3 of the UCA except for sections 25, 26, 38, 42, 43⁵, 44, and 49. Entities that are otherwise public utilities may apply for BCUC approval to provide regulated EV charging services.

Response:

Per the above (Page 2) it is suggested that AC charging services not be subject to regulation and that the Association is supportive of the Straw Man argument under the following circumstances:

- a) that it applies to DCFC charging services only
- b) that any subsequent rate as part of an Order or through the General Tariff be a cap rather than fixed rate in order to encourage both private investment and competition.
- c) that the DCFC rate cap not adversely impact existing infrastructure investments or be higher than the equivalent price of gasoline.
- d) that Section 41 be added (No discontinuance without permission)
- e) that the Section 49 requirement be deleted⁶ (Accounts and Reports)
- f) that the exclusionary ("but does not include") section of the definition be used to exclude persons providing AC EV charging services - effectively deregulating AC charging services

⁴ Predominantly in the Western US:

⁵ Excluding 43(1)(b)(ii) where a public utility must provide to the BCUC an annual report regarding demand-side measures

⁶ Such a requirement could require private entities to reveal competitive financial information

The rationale for the deregulation of AC electric vehicle services is as follows:

- a) It would provide an immediate remedy and clarification for the ability of multi-unit residences (condos, apartments) to recover EV charging service and electricity costs.
- b) There are sufficient safeguards and consumer protections⁷ with respect to fees that may be applied for AC charging services.
- c) It would provide a remedy for shopping centres or other commercial owners who may choose to continue free services or apply fees to discourage “opportunity charging” or recovery part or all of their costs.
- d) It would encourage additional EV infrastructure by providing an opportunity for a ROI on the less expensive AC charging infrastructure
- e) Competitive market forces are in play for AC charging services to the extent that excessive fees for AC charging are unlikely to materialize or be sustainable in urban or rural conditions.
- f) It is preferable to deregulate AC charging services rather than regulate them only for the purpose of fee transparency (via a General Tariff) or to provide for a “cost recovery” exemption. Cost recovery exemptions could require considerable additional legislative and administrative complexity that is not warranted for AC electric vehicle charging services.
- g) Retention of AC charging within the definition of a public utility for the sole purpose of applying one or more of Sections 25, 26, 38,42,43,44, or 49 is onerous and unnecessary. None of these sections is justified, in our view, for AC (Level 1 or 2) charging services and regulating would be expected to be an impediment to the expansion of AC charging infrastructure.
- h) The demarcation between AC (unregulated) and DCFC (regulated as a Class exemption for the purposes of service issues and a rate cap) is straightforward and clear rather than attempting to distinguish between regulated and unregulated by cost recovery or (eligible) costs or other parameters.
- i) There is no known scenario that would justify regulating AC charging services in the future as AC charging cannot compete with high speed DCFC charging services⁸.

Interpretations – Compensation, Clean Energy Act, GRR

In addition, the Panel invites argument on the following:

1. The legal interpretation regarding the “for compensation” wording within the definition of a public utility under the UCA.

⁷ Victoria EV Association submission June 5, 2018 Page 6 Response 2.1 b) re Civil Resolution Tribunal and Dispute Resolution Service.

⁸ Higher speed (above 20 kW) AC services would require higher capacity inverters in each vehicle adding to vehicle weight cost, and thermal management issues that are more effectively addressed by external DCFC charging units,

Response

The Victoria EV Association's interpretation of "compensation" is on Page 1. As noted, the term "compensation" appears to include cost-recovery.

With respect to the "mall example", our view is that it would not qualify as "compensation" because there is no direct relationship between provision of the charging service and identifiable revenue. In fact, in peak shopping seasons or periods, shopping centre tenants may actually receive less revenue⁹ as unused or unoccupied EV spaces cannot be used by other vehicles.

The YVR and cafe examples are more indicative of EV charging being a customer service rather than a profit centre.

2. Interpretation of section 18 of the Clean Energy Act and section 4 of the GGRR as a prescribed undertaking, thereby enabling existing public utilities such as BC Hydro and FBC to provide EV charging services with the inclusion of EV charging stations in their regulated rate base.

Response

The GGRR appears to definitely apply in terms of BC Hydro and Fortis BC providing EV charging services within the regulated rate base. Please refer to the more comprehensive response on Page 2.

This section is intentionally blank

⁹ The Association knows of one case where a mall has 12 fully-equipped EV charging spaces but only has signage for 4 of them as "EV charging only" for the reason of potential lost tenant revenue in peak shopping periods.

Arguments on Additional Priority Issues

Intervenors may also provide arguments on any additional priority issues for the Panel's consideration in the first phase of the Inquiry's report. After the final and reply arguments, the Panel will issue a report, expected in October 2018, with its findings and recommendations. The Panel's findings may lead to making recommendations for a Ministerial Order for certain exemptions from the UCA.

Response

- 1) The issue of the potential inclusion of DCFC rates within the Order or General Tariff (as a capped rate)
- 2) Clarification of the ability of BC Hydro and Fortis BC to invest in DCFC infrastructure and other incentives and programs under the GGRR
- 3) Encouragement for BC Hydro and Fortis BC to consider EV infrastructure investments based on the ground work done by the California and western utilities organizations^{10,11}
- 4) Consideration of the exemption of DCFC installations from demand charges¹²

¹⁰ SEPA (Smart Electric Power Alliance "Utilities and Electric Vehicles – Evolving to Unlock Grid Value"

¹¹ Pacific Gas & Electric, San Diego Gas & Electric, Southern California Edison

¹² Victoria EV Association submission of June 5th Page 11

Appendix A – Definitions in the BC Utilities Act

"**public utility**" means a person, or the person's lessee, trustee, receiver or liquidator, who owns or operates in British Columbia, equipment or facilities for

(a) the production, generation, storage, transmission, sale, delivery or provision of electricity, natural gas, steam or any other agent for the production of light, heat, cold or power to or for the public or a corporation for compensation, or

(b) the conveyance or transmission of information, messages or communications by guided or unguided electromagnetic waves, including systems of cable, microwave, optical fibre or radio communications if that service is offered to the public for compensation,

but does not include

(c) a municipality or regional district in respect of services provided by the municipality or regional district within its own boundaries,

(d) a person not otherwise a public utility who provides the service or commodity only to the person or the person's employees or tenants, if the service or commodity is not resold to or used by others,

(e) a person not otherwise a public utility who is engaged in the petroleum industry or in the wellhead production of oil, natural gas or other natural petroleum substances,

(f) a person not otherwise a public utility who is engaged in the production of a geothermal resource, as defined in the Geothermal Resources Act, or

(g) a person, other than the authority, who enters into or is created by, under or in furtherance of an agreement designated under section 12 (9) of the Hydro and Power Authority Act, in respect of anything done, owned or operated under or in relation to that agreement;

Appendix B – Exemption Conditions

Section 25 - Commission may order improved

If the commission, after a hearing held on its own motion or on complaint, finds that the service of a public utility is unreasonable, unsafe, inadequate or unreasonably discriminatory, the commission must

- (a) determine what is reasonable, safe, adequate and fair service, and
- (b) order the utility to provide it.

Section 26 - Commission may set standards

After a hearing held on the commission's own motion or on complaint, the commission may do one or more of the following:

- (a) determine and set just and reasonable standards, classifications, rules, practices or service to be used by a public utility;
- (b) determine and set adequate and reasonable standards for measuring quantity, quality, pressure, initial voltage or other conditions of supplying service;
- (c) prescribe reasonable regulations for examining, testing or measuring a service;
- (d) establish or approve reasonable standards for accuracy of meters and other measurement appliances;
- (e) provide for the examination and testing of appliances used to measure a service of a utility.

Section 38 – Public utility must provide service

A public utility must

- (a) provide, and
- (b) maintain its property and equipment in a condition to enable it to provide, a service to the public that the commission considers is in all respects adequate, safe, efficient, just and reasonable.

Section 41 – No discontinuance without permission

A public utility that has been granted a certificate of public convenience and necessity or a franchise, or that has been deemed to have been granted a certificate of public convenience and necessity, and has begun any operation for which the certificate or franchise is necessary, or in respect of which the certificate is deemed to have been granted, must not cease the operation or a part of it without first obtaining the permission of the commission.

Section 42 – Duty to obey orders

A public utility must obey the lawful orders of the commission made under this Act for its business or service, and must do all things necessary to secure observance of those orders by its officers, agents and employees.

Section 43 - Duty to provide information

(1) A public utility must, for the purposes of this Act,

- (a) answer specifically all questions of the commission, and
- (b) provide to the commission
 - i. the information the commission requires, and
 - ii. a report, submitted annually and in the manner the commission requires, regarding the demand-side measures taken by the public utility during the period addressed by the report, and the effectiveness of those measures.

- (2) A public utility that receives from the commission any form of return must fully and correctly answer each question in the return and deliver it to the commission.
- (3) On request by the commission, a public utility must deliver to the commission
 - (a) all profiles, contracts, reports of engineers, accounts and records in its possession or control relating in any way to its property or service or affecting its business, or verified copies of them, and
 - (b) complete inventories of the utility's property in the form the commission directs.
- (4) On request by the commission, a public utility must file with the commission a statement in writing setting out the name, title of office, post office address and the authority, powers and duties of
 - (a) every member of the board of directors and the executive committee,
 - (b) every trustee, superintendent, chief or head of construction or operation, or of any department, branch, division or line of construction or operation, and
 - (c) other officers of the utility.
- (5) The statement required under subsection (4) must be filed in a form that discloses the source and origin of each administrative act, rule, decision, order or other action of the utility.

Section 44 - Duty to keep records

- (1) A public utility must have in British Columbia an office in which it must keep all accounts and records required by the commission to be kept in British Columbia.
- (2) A public utility must not remove or permit to be removed from British Columbia an account or record required to be kept under subsection (1), except on conditions specified by the commission.

Section 49 – Accounts and reports

The commission may, by order, require every public utility to do one or more of the following:

- (a) keep the records and accounts of the conduct of the utility's business that the commission may specify, and for public utilities of the same class, adopt a uniform system of accounting specified by the commission;
- (b) provide, at the times and in the form and manner the commission specifies, a detailed report of finances and operations, verified as specified;
- (c) file with the commission, at the times and in the form and manner the commission specifies, a report of every accident occurring to or on the plant, equipment or other property of the utility, if the accident is of such nature as to endanger the safety, health or property of any person;
- (d) obtain from a board, tribunal, municipal or other body or official having jurisdiction or authority, permission, if necessary, to undertake or carry on a work or service ordered by the commission to be undertaken or carried on that is contingent on the permission.

Appendix C - Section 3 & 4 of the GHG Reduction Regulations (GGRR)

- (3) Subject to subsection (4), a public utility's undertaking that is in a class defined in one of the following paragraphs is a prescribed undertaking for the purposes of section 18 of the Act:
- a) a program to encourage the public utility's customers, or persons who may become customers of the public utility, to use electricity, instead of other sources of energy that produce more greenhouse gas emissions, by
 - (i) educating or training those customers respecting energy use and greenhouse gas emissions, carrying out public awareness campaigns respecting those matters, or providing energy management and audit services, or
 - (ii) providing funds to those persons to assist in the acquisition, installation or use of equipment that uses or affects the use of electricity;
 - b) a program to encourage the public utility's customers, or persons who may become customers of the public utility, to use electricity instead of other sources of energy that produce more greenhouse gas emissions, by
 - (i) educating, training, providing energy management and audit services to, or carrying out awareness campaigns respecting energy use and greenhouse gas emissions for, or
 - (ii) providing funds to persons who
 - (iii) design, manufacture, sell, install or, in the course of operating a business, provide advice respecting equipment that uses or affects the use of electricity,
 - (iv) design, construct, manage or, in the course of operating a business, provide advice respecting energy systems in buildings or facilities, or
 - (v) design, construct or manage district energy systems;
 - c) a project, program, contract or expenditure for research and development of technology, or for conducting a pilot project respecting technology, that may enable the public utility's customers to use electricity instead of other sources of energy that produce more greenhouse gas emissions;
 - d) a project, program, contract or expenditure supporting a standards-making body in its development of standards respecting
 - (i) technologies that use electricity instead of other sources of energy that produce more greenhouse gas emissions, or
 - (ii) technologies that affect the use of electricity by other technologies that use electricity instead of other sources of energy that produce more greenhouse gas emissions;
 - e) a project for the construction, acquisition or extension of a plant or system, that the public utility reasonably expects is necessary to meet the public utility's incremental load-serving obligations arising as a result of an undertaking defined in paragraph (a), (b), (c) or (d), if the public utility reasonably expects any one such project to cost no more than \$20 million.
- (4) An undertaking is within a class of undertakings defined in paragraph (a) or (b) of subsection (3) only if, at the time the public utility decides to carry out the undertaking, the public utility reasonably expects the undertaking to be cost effective.