



August 1, 2018

Mr. Patrick Wruck
Commission Secretary
British Columbia Utilities Commission
6th Floor, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Mr. Wruck:

Please find enclosed the British Columbia Ministry of Energy, Mines and Petroleum Resources' final argument in the British Columbia Utilities Commission Inquiry into the Regulation of Electric Vehicle Charging Service (Project No.1598941).

If you have any questions regarding this submission or require any further information, please contact Shannon Craig at Shannon.Craig@gov.bc.ca or 778-698-7016.

Thank you.

Sincerely,



Les MacLaren
Assistant Deputy Minister
Electricity and Alternative Energy Division

Enclosure

BC Ministry of Energy, Mines and Petroleum Resources

Final Argument

**British Columbia Utilities Commission
Inquiry into the Regulation of Electric Vehicle Charging Service**

Project No. 1598941

Introduction

1. This is the final argument of the Ministry of Energy, Mines and Petroleum Resources (“MEMPR”) in the British Columbia Utilities Commission (“the Commission”) Inquiry into the Regulation of Electric Vehicle (“EV”) Charging Service (“the Inquiry”).
2. MEMPR has a significant interest in the outcome of this Inquiry. MEMPR supports a significant expansion of public EV charging infrastructure in BC, which will be required in order for the Province to meet provincial, national and international commitments on climate change, reduce transportation-related GHG emissions, and increase the number of zero-emission vehicles on the roads in BC.
3. MEMPR appreciates the time and effort that the Panel, Commission staff and other intervenors have invested thus far to make this Inquiry a success. MEMPR looks forward to the Inquiry results, including any recommendations or advice to Government that the Panel may wish to provide.
4. MEMPR supports the Panel’s decision to limit this phase of the Inquiry to the following three issues:
 - i. 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"?
 - ii. Should entities not otherwise public utilities supplying electricity to EV end users be regulated at all?
 - iii. Inasmuch as public utilities such as BC Hydro and FortisBC (“FBC”) 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 Greenhouse Gas (Clean Energy) Reduction Regulation (“the GGRR”).

Submissions on Issue 1

5. “Public utility” is defined in section 1 of the *Utilities Commission Act* (“the UCA”) as:

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 radiocommunications 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.

6. The Panel has invited interveners to make submissions on the legal interpretation of the “for compensation” wording included in paragraph (a) of the public utility definition.
7. MEMPR encourages the Panel to take a purposive approach towards its interpretation of the definition of public utility, by considering the objectives of the statute as a whole and how its interpretation in the context of this Inquiry may impact other entities that provide “free” electricity to customers for various purposes (e.g., cafes or airports providing paying customers with free electricity to charge their electronic devices or pay parking lots in the north of the province that provide access to an electrical plug for block heating in some parking spaces). A purposive approach would be consistent with section 8 of the *Interpretation Act*¹, which applies to all provincial enactments, including the UCA, and states that “Every enactment must be construed as being remedial, and must be given such fair, large and liberal construction and interpretation as best ensures the attainment of its objects.”
8. MEMPR suggests that the question of whether a person falls within the definition of a public utility depends upon the particular circumstances of an individual case. For example, the answer to the question posed by the Panel (i.e., whether 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 customer is a public utility), would likely be influenced by the nature of the other services being

¹ http://www.bclaws.ca/civix/document/id/complete/statreg/96238_01#section8

provided and whether the cost of those services had been inflated to specifically recover the cost of providing the EV charging service.

9. As noted in MEMPR's evidence submission, a significant number of the estimated 1,000 public Level 2 and DC fast-charging stations in the province currently offer free EV charging services.²
10. MEMPR encourages businesses such as shopping malls, cafes, and airports to install EV charging stations by promoting the benefits of EV infrastructure for both the environment and the business, which could use the offer of free EV charging to attract new customers. For example, MEMPR supported the Electric Vehicle Infrastructure Project, which led to the installation of over 500 Level 2 charging stations for public use in urban areas across the province.³
11. MEMPR is concerned about potential impacts on these and future EV infrastructure investments if each of these station owners and/or operators was considered to be a "public utility." In that situation, a business may decide that the benefits of providing free EV charging services outweigh the potential regulatory burden, resulting in fewer EV charging services being provided to EV owners.

Submissions on Issue 2

12. The Panel has asked whether entities not otherwise public utilities supplying electricity to EV end users be regulated at all and has invited 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, 43 (Excluding 43(1)(b)(ii)), 44, and 49. Entities that are otherwise public utilities may apply for BCUC approval to provide regulated EV charging services.

13. MEMPR supports the concept of an exemption from provisions of the UCA for entities not otherwise public utilities that are providing EV charging services. In common with many interveners in this proceeding, MEMPR does not believe that full regulation as public utilities is required for these entities. In 2016, the (then) Minister of Energy and Mines and Minister Responsible for Core Review granted advance approval to the Commission to provide an exemption from provisions of the UCA to Bakerview EcoDairy Ltd. ("the EcoDairy exemption"), which provides fee-based DC fast-charging services to the public.⁴
14. An exemption from provisions of the UCA for entities not otherwise public utilities that are providing EV charging services would be consistent with the key principles that were adopted by the Panel for the Inquiry, namely, that the Commission should only regulate where necessary, and regulation should not impede competitive markets.

² [Exhibit C19-2](#), Pages 4 and 5

³ [Exhibit C19-2](#), Page 3

⁴ http://www.bcuc.com/Documents/Proceedings/2016/DOC_46352_05-19-2016_Bakerview-Exemption-Approved_G-71-16.pdf

15. An exemption from provisions of the UCA for entities not otherwise public utilities that are providing EV charging services would also be consistent with the approaches taken in many other jurisdictions, which either do not consider these entities as public utilities, or take only a light-handed approach to regulation. As noted in MEMPR's evidence submission, Ontario, California, Washington, Oregon, New York and a number of other US states exempt EV charging from energy regulation. Re-sale of electricity is permitted without prior approval, and prices are set by the market.⁵ As EVs and EV charging service providers operate across jurisdictions, some consistency in regulatory approach among jurisdictions is desirable.

Level 1 and Level 2 Charging Services

16. As noted in our earlier submissions, MEMPR sees a distinction between Level 1 and Level 2 charging services compared to DC fast-charging. The following excerpt from our evidence submission describes the differences between these levels of charging service:
- Level 1 charging: The slowest form of charging. Uses a standard household (120 volt ("V")) outlet to connect to a vehicle's on-board charger and can take up to 22 hours for a full charge.
 - Level 2 charging: Provides electricity at 240V through a dedicated outlet and can take from four to six hours to completely charge a vehicle.
 - Level 3 charging or DC fast-charging: Delivers an 80% charge in approximately 30 minutes.⁶

Further explanation of the differences in charging service levels can be found in the evidence submissions from both BC Hydro⁷ and FBC⁸.

17. MEMPR submits that no Commission oversight of Level 1 and Level 2 charging services is required, and entities not otherwise public utilities can therefore be exempted from the application of the UCA in respect of these services.
18. MEMPR recommends such an exemption for the following reasons:
- a) For Level 1 and Level 2 charging services, there appear to be no barriers to entry, which is one of the characteristics of a competitive market place. A guide to installation costs provided by Plug In BC shows that the installation cost for a networked Level 2 charging station is only \$6,425.00.⁹
 - b) No provider has a monopoly over the provision of Level 1 and Level 2 charging services. The current variety of both public and private Level 1 and Level 2 EV charging stations in terms of ownership and fees suggest that customers do have a choice of service provider for these two types of charging service and are not "captive." Public EV charging stations available currently in BC are owned and operated by a wide variety of private and public entities. EV owners generally also have the option of charging their vehicles using non-public Level 1 or Level 2 charging stations either at home or at work.

⁵ [Exhibit C19-2](#), Page 7

⁶ [Exhibit C19-2](#), Page 4

⁷ [Exhibit C1-2](#), Appendix A

⁸ [Exhibit C12-2](#), Appendix 1

⁹ [Exhibit C19-2](#), Page 9

- c) Regulating Level 1 or Level charging service providers as “public utilities” will likely be a detriment to private investment and the expansion of these services in BC.
- d) Any concerns regarding safety of Level 1 or Level 2 charging stations can be addressed by other agencies. Technical Safety BC and eight local governments administer the *Safety Standards Act* and Electrical Safety Regulation, which govern the installation, operation and maintenance of electrical equipment, including EV charging stations, in BC.¹⁰

19. To put such an exemption in place, MEMPR recommends that, at the conclusion of this phase of the Inquiry, the Commission make an order pursuant to sections 88(1) and 88(3) of the UCA that exempts a person that is not otherwise a public utility from all provisions of the UCA in respect of Level 1 and Level 2 charging equipment owned or operated by the person. MEMPR notes that the advance approval of the Minister of Energy, Mines and Petroleum Resources would be required in order for the Commission to make such an order.

DC Fast-charging Services

20. Several intervenors filed evidence indicating that the DC fast-charging market is in an early development stage.¹¹ At this early stage of market development, MEMPR is not opposed to some form of light-handed regulation by the Commission of DC fast-charging service providers who are not otherwise public utilities.
21. This position is largely informed by the fact that, unlike Level 1 and Level 2 charging services, there are some significant barriers to entry into the DC fast-charging market created by the higher cost of installation and operation. In its application for approval of rate design and rates for its DC fast-charging service, FBC estimated gross capital expenditures of \$492,000 to build five DC fast-charging stations.¹² In this early market development stage, it may be difficult for service providers to achieve a positive return on their DC fast-charging investments.
22. MEMPR notes that the UCA provisions listed in the straw man regulatory framework are largely consistent with those in the EcoDairy exemption, with the exception of section 26, which allows the Commission to set standards to be used by a public utility.
23. During the procedural conference for the Inquiry, the Panel asked intervenors to make submissions on whether hardware and software standards were within the purview of the Commission’s regulation and, if so, the extent of the regulation that ought to be applied to these standards. Tesla expressed significant concerns about potential Commission regulation of the type of charging connectors installed in motor vehicles or attached to competitively operated EV charging stations.¹³
24. MEMPR is concerned with the inclusion of section 26 of the UCA in the straw man framework, if the inclusion of this provision could result in the Commission setting equipment, hardware or software

¹⁰ [Exhibit C19-2](#), Page 8

¹¹ For example, see [Exhibit C1-2](#), Page 2; [Exhibit C5-2](#), Page 2; and [Exhibit C12-2](#), Pages 2 and 3

¹² [Exhibit C19-2](#), Page 8

¹³ [Procedural Hearing Transcript](#), Page 632

standards for DC fast-charging stations that would limit opportunities for entities to enter the DC fast-charging market. At this early stage of EV vehicle and station development, MEMPR submits that it would be premature for the Commission to limit in any way the introduction in BC of new or different EV technologies.

25. With regard to the other provisions suggested for inclusion in the straw man regulatory framework, and their application to entities not otherwise public utilities providing DC fast-charging services, MEMPR provides the following observations:
- the provisions do not appear to impose significant regulatory burden on regulated entities. Applications for rate approval or permission to construct EV charging stations would not be necessary and it appears that entities would only need to provide information to the Commission if ordered or otherwise requested; and
 - the provisions would appear to allow the Commission to take action, if necessary, to ensure that the interests of consumers are protected. While the Commission would retain its ability under section 25 to order an entity to take action in response to a complaint of unreasonable, inadequate or unsafe service, this would only occur after a hearing. As with any Commission proceedings, entities participating in such a hearing could request that confidential information not be included in the public record.
26. MEMPR looks forward to the submissions from other interveners and the findings of the Panel regarding the straw man regulatory framework, and its application to entities not otherwise public utilities providing DC fast-charging services.

Entities that are Otherwise Public Utilities

27. MEMPR supports the straw man framework statement with respect to entities that are otherwise public utilities, i.e., that they may apply for Commission approval to provide regulated EV charging services. As noted in our evidence submission, MEMPR supports a role for public utilities in “kick-starting” the market for EV charging services.¹⁴
28. Until the EV charging market is further developed, MEMPR’s view is that EV charging stations should be included in a public utility’s regulated rate base. This view is consistent with the approach taken in other jurisdictions, including California, Hawaii, New York and Washington State.¹⁵
29. MEMPR supports innovative rate design for EV charging stations because a traditional cost of service model:
- does not account for the impact of public EV charging services in promoting the uptake of EVs, leading to increases in the incremental load from all forms of EV charging; and
 - may under-estimate the potential revenues from EV charging services, which can include low carbon fuel compliance credits which can be sold to other fuel suppliers.
30. MEMPR recommends a holistic approach to rate design where:
- utilities are able to recover the cost of public EV charging infrastructure through rates charged to all ratepayers in consideration of the revenue obtained through electricity sales at all EV

¹⁴ [Exhibit C19-2](#), Page 12

¹⁵ See [Exhibit C1-4](#) - response from BC Hydro to the Commission’s Information Request No. 1.5.1.1 for further information on the regulatory environments in other jurisdictions.

- charging stations within their service territories (i.e., through both public and private Level 1, 2 and DC fast-charging stations combined); and
- utilities receiving other sources of revenue would use these revenues to expand the charging infrastructure.

Submissions on Issue 3

31. The Panel has invited intervenors to make argument on the “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.”
32. The GGRR allows utilities to implement prescribed undertakings for a specified time period without seeking the prior approval of the Commission for programs that lead to greenhouse gas emission reductions, although the Commission still has the ability to rule on the prudence of expenditures.
33. The current language of section 4 of the GGRR is not directed specifically at EV charging infrastructure investments.¹⁶ Section 4(3) includes general descriptions of various classes of electrification initiatives that can be considered as prescribed undertakings.
34. MEMPR suggests that the question of whether a public utility’s planned EV charging investments fall within one of the classes currently described in section 4(3) of the GGRR depends upon the details of the particular program under consideration. MEMPR notes that, in its application for approval of rate design and rates for its DC fast-charging service, FBC has suggested that its planned investments can be considered as a prescribed undertaking under section 4(3) of the GGRR.¹⁷ MEMPR believes that it is appropriate for the Commission to consider the merits of this argument based upon the information presented in FBC’s application.
35. As noted in MEMPR’s evidence submission, the Province could consider establishing objectives that would guide determinations of whether or not particular EV charging infrastructure investments could be recovered from ratepayers.¹⁸ This could be done through an amendment to the GGRR. The Province has used the GGRR in the past to allow public utilities to play a role in establishing a domestic market for natural gas in transportation. A similar mechanism could be used to allow public utilities to kick-start the market for EV charging services.
36. MEMPR would be interested in advice from the Panel regarding the language of such an amendment.

Conclusion

37. MEMPR supports a significant expansion of public EV charging infrastructure in BC, which will be required in order for the Province to meet provincial, national and international commitments on climate change, reduce transportation-related greenhouse gas emissions and increase the number

¹⁶ See Appendix 1 for the full text of section 4 of the GGRR

¹⁷ http://www.bcuc.com/Documents/Proceedings/2018/DOC_50557_B-1_FBC_EV-DCFC-Service-App.pdf,
Page 3 and 4

¹⁸ [Exhibit C19-2](#), Page 12

of zero-emission vehicles on the roads in BC. As part of its planning for a clean growth future for BC, the Province is currently considering a mandate which would require automakers to supply zero-emission vehicles for the light duty vehicle market, increasing consumer choices for clean transportation.¹⁹

38. To facilitate this expansion, MEMPR supports the reduction of undue regulatory burden and cost of providing EV charging services in BC, so long as the interests of ratepayers and consumers are protected and safety considerations are adequately addressed.
39. MEMPR suggests that no regulatory oversight by the Commission is required for Level 1 and Level 2 charging services provided by entities that are not otherwise public utilities. MEMPR recommends that the Panel make an order exempting those entities from all provisions of the UCA at the conclusion of this phase of the Inquiry.
40. At this early stage of market development, MEMPR is not opposed to some form of light-handed regulation by the Commission of DC fast-charging service providers who are not otherwise public utilities.
41. Although MEMPR has some concerns with the inclusion of section 26 of the UCA, generally, the provisions suggested for inclusion in the straw man regulatory framework do not appear to impose undue regulatory burden on entities that wish to provide DC fast-charging services and will allow the Commission to take action, if necessary, to ensure that the interest of consumers are protected. MEMPR looks forward to the submissions of other interveners and the findings of the Panel in this regard.
42. MEMPR supports a role for public utilities in “kick-starting” the market for EV charging services. MEMPR supports the Panel suggestion of allowing entities that are otherwise public utilities to provide regulated EV charging services with Commission approval.

¹⁹ On July 20, 2018, the Province released a series of intentions papers for feedback from the public, including a paper outlining proposed actions to support uptake and mandate supply of zero-emission vehicles. The papers can be found at <https://engage.gov.bc.ca/cleangrowthfuture/>

Appendix 1 – Section 4 of the GGRR

Prescribed undertaking — electrification

4 (1) In this section:

"benefit", in relation to an undertaking in a class defined in subsection (3) (a) or (b), means all revenues the public utility reasonably expects to earn as a result of implementing the undertaking, less revenues that would have been earned from the supply of undertaking electricity to export markets;

"cost", in relation to an undertaking in a class defined in subsection (3) (a) or (b), means costs the public utility reasonably expects to incur to implement the undertaking, including, without limitation, development and administration costs;

"cost-effective" means that the present value of the benefits of all of the public utility's undertakings within the classes defined in subsection (3) (a) or (b) exceeds the present value of the costs of all of those undertakings when both are calculated using a discount rate equal to the public utility's weighted average cost of capital over a period that ends no later than a specified year;

"natural gas processing plant" means a facility for processing natural gas by removing from it natural gas liquids, sulphur or other substances;

"specified year", in relation to an undertaking within a class defined in subsection (3), means

(a) a year determined by the minister with respect to an identified public utility, or

(b) if the minister does not make a determination for the purposes of paragraph (a), 2030;

"undertaking electricity" means electricity that is provided to customers in British Columbia as a result of an undertaking and is in addition to electricity that would have been provided had the undertaking not been carried out.

(2) 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) for the purpose of reducing greenhouse gas emissions in British Columbia, the public utility constructs or operates an electricity

transmission or distribution facility, or provides for temporary generation until the completion of the construction of the facility, in northeast British Columbia primarily to provide electricity from the authority to

(i) a producer, as defined in section 1 (1) of the Petroleum and Natural Gas Royalty and Freehold Production Tax Regulation, B.C. Reg. 495/92, or

(ii) an owner or operator of a natural gas processing plant;

(b) the public utility reasonably expects, on the date the public utility decides to carry out the undertaking, that the facility will have an in-service date no later than December 31, 2022.

(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.