



January 28, 2019

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

Dear Mr. Wruck:

Her Majesty the Queen in Right of the Province of British Columbia, as represented by the Minister of Energy, Mines and Petroleum Resources (MEMPR) is a registered intervener in the Inquiry into the Regulation of Electric Vehicle Charging Service. Enclosed with this letter is MEMPR's evidence, based on the scope of Phase 2 of the Inquiry established in Order G-231-18.

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.

Sincerely,

Les MacLaren
Assistant Deputy Minister
Electricity and Alternative Energy Division

Enclosure

Submission from Her Majesty the Queen in Right of British Columbia

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

1. Introduction

Her Majesty the Queen in Right of British Columbia, as represented by the Minister of Energy, Mines and Petroleum Resources (MEMPR) has a significant interest in the British Columbia Utilities Commission (the Commission) Inquiry into the Regulation of Electric Vehicle Charging Service (the Inquiry). MEMPR looks forward to the results of this second phase of the Inquiry, including any recommendations or advice to government that the Commission may wish to provide.

In this submission, MEMPR provides new evidence relevant to the Panel's consideration of the questions posed in the order establishing Phase 2 of the Inquiry¹, as well as responses to those questions. In preparing this submission, MEMPR has attempted to avoid duplicating evidence provided in its initial March 15, 2018 evidence submission to the Inquiry and subsequent IR responses. MEMPR assumes that those submissions will be considered as evidence in this second phase of the Inquiry.

2. Provincial Policy and Strategies Related to EVs and EV Charging Infrastructure

MEMPR's initial evidence indicated that a comprehensive provincial strategy on climate action and clean growth was under development.² On December 5, 2018, the Government of British Columbia released its CleanBC plan³ aimed at reducing climate effects, while creating more jobs and economic opportunities for people, businesses and communities. The CleanBC plan was developed as a pathway to achieve the Province's legislated climate targets of reducing greenhouse gas (GHG) emissions by 40% by the year 2030, based on 2007 levels. The CleanBC plan fulfills the Minister of Energy, Mines and Petroleum Resources mandate letter commitment to create a roadmap for the future of BC energy.

Once it is fully implemented, the CleanBC plan will build on the various government programs and activities currently underway to promote the uptake of zero-emission vehicles (ZEVs) in BC. The CleanBC plan puts BC on a path for all new light-duty car and truck sales to be ZEVs by the year 2040. The CleanBC plan sets out escalating targets for annual percentage of new light-duty ZEV sales: 10% by 2025; 30% by 2030; and 100% by 2040.

¹ https://www.bcuc.com/Documents/Proceedings/2018/DOC_52988_A-37-BCUC-EVInquiry-PhaseII-G-231-18.pdf

² https://www.bcuc.com/Documents/Proceedings/2018/DOC_51065_C19-2_MEMPR_Written-Evidence.pdf at page 3

³ https://cleanbc.gov.bc.ca/app/uploads/sites/436/2018/12/CleanBC_Full_Report.pdf

There are over 12,000 ZEVs on BC roads today.⁴ In 2018, ZEVs represented 4% of new light-duty vehicle sales in BC. If the CleanBC plan ZEV sales targets are met, MEMPR expects, at a minimum, 120,000 ZEVs on BC roads by 2025, 350,000 by 2030, and over 1.6 million by 2040.

As part of the move to ZEVs, the CleanBC plan also signals new investments in clean vehicle infrastructure, including EV charging stations and hydrogen fueling stations. Further details of these investments will be available as implementation of the CleanBC plan progresses.

In addition to the climate action benefits, the CleanBC plan anticipates that the build out of new cleaner transportation technology and infrastructure will also stimulate new economic opportunities and development in communities throughout BC. A 2016 report commissioned by the (then) Ministry of Energy and Mines estimated that, in 2015, the ZEV sector in British Columbia encompassed 198 companies, employed approximately 3,850 full-time positions, and contributed about \$700 million (M) in total direct economic activity.⁵ The report also estimated an increase of \$80M in direct economic activity in the ZEV sector in BC by 2020. The measures outlined in the CleanBC plan will place BC among the global leaders in ZEVs as the world transitions to this technology, attracting further economic investment and growth in the ZEV technology sector in BC.

3. Current EV Infrastructure in BC

According to Plugshare⁶, there are currently 222 public DC fast-charging stations in the province. Tesla owns and operates approximately one-half of the stations (113), which are reserved for Tesla vehicles. The majority of the remaining stations (69) are owned and/or operated by BC Hydro and FortisBC. Approximately one-half of these DC fast-charging stations (113) were added in 2018, including 11 installed by the BC Ministry of Transportation and Infrastructure at highway rest areas throughout the province,⁷ and 28 installed by BC Hydro⁸.

In the near-term, MEMPR anticipates that a minimum of 300 new DC fast-charging stations will be required along primary and secondary highways in order to allow British Columbians to travel throughout the province in their EVs. In the long-term, significantly more DC fast-chargers will be necessary in order to support the ZEV sales targets from the CleanBC plan.

Analyses performed for public utilities in other jurisdictions shows that investments in EV charging infrastructure have a direct, positive impact on ZEV sales. A study commissioned by Hydro-Québec estimates a ZEV market share increase of 0.0161% per DC fast-charging station added.⁹ In an analysis performed for Portland General Electric (PGE), Navigant forecast that “electric vehicle lift” resulting

⁴ <https://news.gov.bc.ca/releases/2018PREM0082-002226>

⁵ https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/transportation/cev_economic_opportunities_final_report.pdf

⁶ <https://www.plugshare.com/>

⁷ <https://news.gov.bc.ca/releases/2018TRAN0115-001398>

⁸ https://www.bchydro.com/news/press_centre/news_releases/2018/ev-fast-charging-stations-phase-2.html

⁹ http://publicsde.regie-energie.qc.ca/projets/473/DocPrj/R-4060-2018-B-0005-Demande-Piece-2018_08_16.pdf

from a PGE DC fast-charging program proposal would result in up to 800 new ZEV sales in PGE service territory annually.¹⁰

4. Public Utility Involvement in EV Charging Infrastructure in Other Jurisdictions

Public utilities are playing a significant role in the development of EV charging infrastructure in many other jurisdictions. In some jurisdictions, including Quebec, public utilities are taking on or expanding their roles as owners and operators of public EV charging stations. In others, such as California, public utilities are providing the make-ready infrastructure for public EV charging stations, with third parties installing, owning and operating the EV charging stations. In many jurisdictions, governments have used legislation directed at public utilities and/or public utility commissions to facilitate public utility involvement in the development of EV charging infrastructure.

Public utility involvement in the development of EV charging infrastructure can have a variety of benefits. A November 2017 report from the Georgetown Climate Centre¹¹ identified the following potential benefits from public utility involvement in EV charging infrastructure development:

- Increasing the pace and scale of infrastructure development by opening the market to utility capital, expertise, and other resources;
- Maintaining reliability and minimizing grid impacts and required distribution and transmission system upgrades by coordinating with existing utility investment and planning processes;
- Lowering the cost of infrastructure development through coordination with the distribution grid and building on utility experience with infrastructure development;
- Improving the ability to communicate with customers through existing channels, developing customer pricing models, and creating incentives to promote vehicle charging at times that provide grid benefits—including load balancing and integration of renewable energy sources; and
- Providing more equitable access to charging infrastructure for all ratepayers and communities, and increasing mobility for all through utility partnerships with transportation programs focused on serving disadvantaged communities.

Quebec

To support its objective of adding 1,600 more fast-charging stations within 10 years, on June 18, 2018, Quebec adopted legislation to promote the establishment of a public fast charging service for electric vehicles.¹² That legislation amended the Hydro-Québec Act to allow the government to set the rates for a public fast-charging service for EVs. It also amended the Act respecting the Régie de l'énergie to allow

¹⁰ <https://www.portlandgeneral.com/-/media/public/residential/electric-vehicles-charging-stations/documents/pge-ev-plan.pdf?la=en> at page 114

¹¹ https://www.georgetownclimate.org/files/report/GCC-MJBA_Utility-Investment-in-EV-Charging-Infrastructure.pdf at page 9

¹² <http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=5&file=2018C25A.PDF>

it to take into account, in setting electricity distribution rates, the revenues required by Hydro-Québec to operate a public charging service, as well as economic, social and environmental concerns that may be identified by the government. A draft regulation published on September 5, 2018, sets the rate for using the public fast-charging service at \$11.50 per hour, with annual adjustments to account for inflation.¹³

On August 17, 2018, Hydro-Québec filed its application for the establishment of a public fast-charging service for electric vehicles with the Régie de l'énergie,¹⁴ with an anticipated investment of \$118M over ten years. Hydro-Québec prepared the application based on an analysis of the impact that the proposed public fast-charging service would have on EV sales and the resulting increase in electricity sales that would occur as a result of the related increase in home charging. This "induced effect" was calculated using a model that considered historical data and forecasting studies.¹⁵ In calculating the impact of the new charging service on its revenue requirements, Hydro-Québec attributes forecast revenues from both the charging stations and the estimated increase in home charging-related electricity sales to implementation of the service. As a result, Hydro-Québec estimates that establishing the fast-charging service will have a small impact on its required revenues until 2021; in 2022, the revenues obtained as a result of the new service will start exceeding the costs of its delivery.

California

In May 2018, the California Public Utilities Commission (CPUC) approved wide-ranging proposals with a total budget of more than \$750M from the state's large investor-owned utilities to expand electric vehicle infrastructure and rebate programs.¹⁶ Under these proposals, Pacific Gas & Electric will invest up to \$236M in infrastructure and rebates for up to 6,500 medium- and heavy-duty electric vehicles. It will also spend \$22M to provide utility-owned make-ready infrastructure at 52 sites, to support installation of 234 DC fast-charging stations for passenger vehicles. San Diego Gas & Electric will spend \$137M to offer rebates and installation services for a maximum of 60,000 customers for charging at home and at small multi-unit dwellings. Southern California Edison received approval to invest \$343M for up to 8,500 medium- and heavy-duty vehicle infrastructure investments at 870 sites.

Section 740.12 of the California Public Utilities Code¹⁷ requires CPUC to direct the utilities under its regulatory oversight to undertake transportation electrification activities. That section also allows the transportation electrification programs and investments proposed by a utility to be recovered through a

¹³

<http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=1&file=2018A%2F103694.PDF>

¹⁴

<http://publicsde.regie-energie.qc.ca/layouts/publicsite/ProjectPhaseDetail.aspx?ProjectID=473&phase=1&Provenance=B&generate=true>

¹⁵

http://publicsde.regie-energie.qc.ca/projets/473/DocPri/R-4060-2018-B-0005-Demande-Piece-2018_08_16.pdf

¹⁶

<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M215/K783/215783846.PDF>

¹⁷

https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=PUC§ionNum=740.12.

reasonable cost-recovery mechanism if they do not unfairly compete with nonutility enterprises, include performance accountability measures, and are in the interests of ratepayers.

Washington

In 2015, legislation was put in place authorizing the Washington Utilities and Transportation Commission to allow investor-owned electric utilities an incentive rate of return on investments in electric vehicle supply equipment deployed for the benefit of utility ratepayers, provided that the capital expenditures do not increase costs to ratepayers in excess of one-quarter of one percent.¹⁸ In a 2017 Policy Statement, the Washington Utilities and Transportation Commission provided regulatory guidance to investor-owned utilities to facilitate the implementation of programs that take advantage of the financial incentives set out in legislation.¹⁹ Although no public utilities have yet taken full advantage of the allowed incentive rate of return, the Washington Utilities and Transportation Commission has approved several public utility pilot projects that establish a portfolio of EV charging station programs and services for both utility customers and members of the public.²⁰

5. Rate Design and Rate Setting Considerations

Other jurisdictions have approached the question of rate design and rate setting for public utilities providing electricity for non-residential EV charging services in a variety of ways.

Quebec

Hydro-Québec has put in place an experimental rate for charging stations (Experimental Rate BR).²¹ It applies to a contract for electricity delivered for the purpose of supplying one or more direct-current electric vehicle charging stations rated 400 volts or more. The electricity may also be used to supply one or more 240-volt stations, at the customer's discretion. Customers must supply Hydro-Québec with non-identifiable data from all charging stations covered by the contract under this rate, such as duration, energy consumption and power demand for each charge, at an agreed-upon frequency.

California

In November 2018, Pacific Gas & Electric made a proposal to the CPUC for a new set of rate plans that would offer a subscription model for commercial electric vehicle charging.²² If approved, the new plans would offer tiered subscription pricing for EV charging for commercial vehicles that would offer a more

¹⁸ <https://app.leg.wa.gov/RCW/default.aspx?cite=80.28.360>

¹⁹ <https://www.utc.wa.gov/layouts/15/CasesPublicWebsite/GetDocument.ashx?docID=147&year=2016&docketNumber=160799>

²⁰ For example, see

<https://www.utc.wa.gov/layouts/15/CasesPublicWebsite/GetDocument.ashx?docID=37&year=2018&docketNumber=180877>

²¹ <http://www.hydroquebec.com/business/customer-space/rates/rate-br-experimental-rate-fast-charge-stations.html>

²² <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M238/K227/238227315.PDF>

predictable monthly bill for fleet managers. The new structure would allow station operators to subscribe for a certain amount of power per billing period, which correlates more directly with the number of miles driven each month. The current base electrical rate that uses time of use or tiered electricity rates with demand charges stacked on top often results in electric bills for fleet managers that fluctuate significantly from month to month.

6. Responses to Questions

MEMPR's responses to the questions posed by the BCUC in Appendix A to Order G-231-18 are presented below.

Question 1

a) Can both regulatory models – little or no regulation for those exempt public utilities and the participation of non-exempt utilities – co-exist?

Yes. MEMPR supports the participation of non-exempt public utilities in the EV charging services market. Other jurisdictions have taken a similar approach and have used a variety of methods to facilitate public utility involvement in establishing a market for EV charging services. A role for public utilities would not preclude other entities from also investing in EV charging services.

These two models already co-exist, to some extent, in BC's EV charging market; municipalities (that are excluded from regulation under the *Utilities Commission Act (UCA)*), BC Hydro and FortisBC all play significant roles in the EV charging market.

b) 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?

MEMPR assumes that when the commission refers to the "absence of price regulation," this means a scenario where all parties providing EV charging services are exempt from price regulation. MEMPR is not aware of any evidence that would suggest that non-exempt public utilities have, or will try to, "undercut" EV charging providers that are not otherwise public utilities

MEMPR recognizes that non-exempt public utilities may be considered to have a competitive advantage over other entities, which may not be able to recover costs from a broader customer base. However, as noted above under a), MEMPR anticipates that other entities will develop unique business models that will provide them with other competitive advantages in the EV charging market (e.g., the delivery of ancillary services at charging stations). As the EV charging station market develops, these assumptions may need to be revisited. Other entities are also able to take advantage of government grant or subsidy programs, or generate compliance credits under the

Renewable and Low Carbon Fuel Requirements Regulation, which can further reduce the cost of EV charging station operation.

- c) *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?*

No. MEMPR does not support a distinction in the role that public utilities may play in increasing the density of charging options in metropolitan areas versus providing wider coverage throughout BC. MEMPR sees that public utilities have a role in both. Similarly, MEMPR has previously noted its support for access to energy services on a postage stamp rate basis so that all British Columbians benefit from access to services at the lowest average cost.²³

If the business case for DC fast-charging stations in metropolitan areas improves, such a distinction could be considered. MEMPR notes that CPUC has approved EV charging investment programs by public utilities that focus on sites that may otherwise be under-served by EV charging infrastructure, including disadvantaged communities, condominiums, apartment buildings and workplaces.²⁴

Question 2

- a) *If the provision of EV charging is exempt from regulation, is there any justification for non-exempt public utilities to provide EV charging services?*

Yes. Public utilities have already played a significant role in the development of EV charging infrastructure in the province. To date, with the exception of Tesla, other commercial entities have not shown significant interest in making DC fast-charging investments in the province. MEMPR believes that, without additional investment in EV charging infrastructure from public utilities, ZEV sales targets set out in the CleanBC plan will not be met. Other jurisdictions with aggressive ZEV adoption targets, including California and Quebec, have concluded that public utility involvement is critical to ensuring adequate EV charging infrastructure.

Public utility involvement is justified for a variety of reasons. The experience to date in BC and other jurisdictions shows that other entities are unable to develop profitable business models that will enable widespread development of the DC fast-charging networks that are needed to meet jurisdictional targets for ZEV sales and/or GHG reductions. Based on communications with entities who have expressed interest in entering the EV charging market, even with an exemption from regulation, MEMPR believes it is highly unlikely that investments by these entities alone will enable the CleanBC plan targets to be met.

²³ See the submission made by the Ministry of Energy and Mines in the reconsideration of the Commission's decision related to FortisBC Energy Utilities' Common Rates, Amalgamation and Rate Design Application: http://www.bcuc.com/Documents/Proceedings/2013/DOC_35100_C3-1_MEM_IntervenerReg.pdf

²⁴ See, for example: https://www.pge.com/tariffs/tm2/pdf/ELEC_5020-E.pdf

Public utilities also have experience and expertise in electrical infrastructure development. Public utilities can integrate EV charging infrastructure into their existing systems in a manner that maximizes efficiency and cost effectiveness and provides maximum benefits for ratepayers.

b) If the role of non-exempt public utilities is to kick start the market, how can the BCUC determine when the kick start is no longer needed? What is the role of those utilities once that kick start is completed?

As noted in previous submissions, MEMPR supports a role for public utilities in “kick-starting” the market for EV charging services. This does not mean that MEMPR believes this is the only role for public utilities in the EV charging service market. Public utilities may continue to have a role in the EV charging station market in the future, once the “kick-start” is no longer needed.

MEMPR can’t predict exactly how the EV charging station market will mature and whether/how the economics of EV charging station ownership will change with increased EV adoption rates and advancements in EV and charging station technology. Any regulatory model governing public utilities’ participation in the EV charging station market should be flexible enough to respond to future changes in the EV charging station market and EV charging technology and allow for the public utilities’ role in that market to evolve.

c) If there are stranded assets at that time how should they be dealt with?

MEMPR does not anticipate that assets will be stranded once the kick-start of the EV charging market is complete. EV charging stations have a life span of at least 10 years. Although EV charging technology will evolve, this does not necessarily mean that an EV charging station using “old technology” becomes obsolete. Older model EVs may not be able to connect to newer EV charging stations. So long as the installed infrastructure uses open source protocols, public utilities could dispose of assets to other entities if they no longer play a role in direct delivery of EV charging services in the future.

Question 3

a) If non-exempt public utilities participate in the EV charging market, should EV charging customers constitute a separate class from which costs associated with EV charging infrastructure is recovered? Or should the service be offered in a separate non-regulated business? What are the implications of each of these regulatory models?

MEMPR does not favour either of these approaches. At this current stage of EV market development, MEMPR prefers a model that allows existing public utilities to kick-start the market by investing in EV infrastructure and recovering costs from all ratepayers, rather than as a non-regulated venture.

b) What are the implications of each of these regulatory models?

MEMPR does not believe that either model would allow for the significant expansion of EV charging infrastructure needed to support the ZEV sales targets set out in the CleanBC plan. Until the EV charging market is further developed, experience in other jurisdictions, and the experience to date in BC, shows that public utilities and other entities can't establish and maintain a network of DC fast-charging stations based solely on revenue from electricity sales obtained from those stations.

Question 4

a) Should other customer classes of non-exempt public utilities subsidize costs associated with the provision of charging services that can't be recovered from EV charging customers?

In MEMPR's view, other customer classes of non-exempt public utilities should subsidize the costs associated with the development and maintenance of a public DC fast-charging service. Analyses performed in other jurisdictions show that investments in DC fast-charging infrastructure have a direct and positive impact on EV sales. All ratepayers will benefit from the reduction in GHG emissions that will result from an increase in the proportion of EVs on the roads in BC. All ratepayers will also benefit from the increase in electricity sales that will result from the increase in home charging. As the EV charging station market develops and ZEVs become more prolific on BC roads, these assumptions may need to be revisited. Also see the answers to questions 6 and 7 below.

b) How much of the cost is it appropriate for them to subsidize – should there be a cap?

It is appropriate for ratepayers to subsidize all costs that can't be recovered from EV charging station user fees, the sale of low carbon fuel credits and/or grants from the federal or provincial governments. There should be no cap on costs.

Question 5

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?

As noted above under the response to Question 2(c), MEMPR does not anticipate that stranded assets will be a significant issue. If assets are stranded because of changing technology or other factors, ratepayers would pay for any stranded assets.

Question 6

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?

Yes, if a public utility is able to demonstrate that its investments in EV charging services add incremental load, that would justify cross-subsidization. Hydro-Québec has taken this approach in its recent application to the Régie de l'énergie for the establishment of a public fast-charging service for electric vehicles. Hydro-Québec prepared the application based on an analysis of the impact that the proposed public fast-charging service would have on EV sales and the increase in electricity sales that would occur as a result of the related increase in home charging. This “induced effect” was calculated using a model that considered historical data and forecasting studies. Based on their modeling and planned investments, Hydro-Québec estimates that implementation of its program will have a small impact on its revenue requirements in its early years. After 2022, the program will pay for itself through a combination of fast-charging user fees and increased load.

Question 7

What are the implications of the province’s energy objectives, as stated in the Clean Energy Act, with respect to non-exempt public utilities providing potentially subsidized EV charging services? Are there non economic justifications such as environmental benefits or meeting greenhouse gas reduction targets?

Although the province’s energy objectives, as stated in the *Clean Energy Act*, may not be directly applicable to decisions relating to EV charging services under the UCA, government’s position is consistent with those objectives, and particularly those that seek to reduce GHG emissions, including sections 2(d) and (h) of the *Clean Energy Act*.

There are several non-economic justifications for non-exempt public utilities to provide subsidized EV charging services. All ratepayers will benefit from a reduction in GHG emissions associated with public utility investment in EV charging infrastructure. The *Clean Energy Act* and the *Climate Change Accountability Act* set out GHG reduction targets for BC. The CleanBC plan identifies an increase in ZEV sales as a key strategy for reducing GHG emissions in the Province. Analyses performed in other jurisdictions show that investments in EV charging infrastructure have a direct and positive impact on ZEV sales.

In addition to the climate action benefits, the CleanBC plan anticipates that the build out of new cleaner transportation technology and infrastructure will also stimulate new economic opportunities and development in communities throughout BC, including an increased use of locally-produced clean electricity and hydrogen for transportation. The measures outlined in the CleanBC plan will place BC among the global leaders in ZEVs as the world transitions to this technology, attracting further economic investment and growth in the ZEV technology sector in BC. All ratepayers will benefit from these economic opportunities.

Questions 8, 9 and 10

No response.

Question 11

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

MEMPR takes no position on this question, but notes that:

- public utilities in other jurisdictions have developed specific tariff provisions for the wholesale provision of electricity for the purpose of EV charging;
- public utilities in BC do not generally offer end-use rates, although there are exceptions (e.g., BC Hydro's shore power rate, E-Plus rate, street lighting rates, irrigation rate, exempt residential service rate for farms);
- although they are not EV-specific, time of use residential rates could provide significant savings to EV owners who are able to charge their vehicles at home during off-peak times; and
- utilities could also develop demand response tariffs that could reduce peak demand or manage load on distribution circuits as home charging grows.

Question 12

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?

MEMPR takes no position on how any wholesale tariff should be designed but notes that public utilities in other jurisdictions have taken a variety of approaches to EV charging tariffs, including time of use rates and subscription rates. Presumably, any EV-specific wholesale tariff would only be necessary for entities offering DC fast-charging services, which otherwise could result in high demand charges. There doesn't appear to be a similar need for EV-specific wholesale tariffs for Level 1 and Level 2 charging services.

Question 13

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 unclear to MEMPR why the Panel is inviting submissions on the interpretation of the term “distribution equipment.” That term is not used in the Electrical Safety Regulation. In the UCA, the term is only used in sections 32 and 33, which give the BCUC powers to intervene where a public utility and a municipality can’t come to an agreement regarding the placement of distribution equipment on a municipal thoroughfare. The interpretation of the term does not appear to be relevant to the question of EV charging station safety, or the subject of the Inquiry; therefore, MEMPR makes no submissions in this regard.

Question 14

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.

MEMPR supports the participation of non-exempt public utilities in providing EV charging services. MEMPR does not believe that ZEV sales targets outlined in the CleanBC plan will be reached without significant involvement by public utilities in the development of new EV charging infrastructure. An amendment to the Greenhouse Gas Reduction (Clean Energy) Regulation (GGRR) under the *Clean Energy Act* is one possible tool for promoting public utility involvement in the EV charging market. Other jurisdictions have taken a variety of legislative approaches to achieve this purpose. It is exclusively within the purview of the provincial government to determine whether a legislative or regulatory response is appropriate to achieve a particular public policy objective.

7. Conclusions

The Province of BC has set out ambitious targets for GHG emission reductions. Under the CleanBC plan, a proportion of these GHG emission reductions will be achieved through an increase in the number of EVs on BC roads. A significant increase in EV charging infrastructure is required to support this increase.

Other jurisdictions have identified significant roles for public utilities in achieving an increase in EV charging infrastructure and MEMPR supports a similar role for public utilities in BC. MEMPR does not believe that ZEV sales targets outlined in the CleanBC plan will be reached without significant involvement by public utilities in the development of new EV charging infrastructure. A role for public utilities would not preclude other entities from also investing in EV charging services.

Public utility investments in EV charging infrastructure will benefit all ratepayers. MEMPR supports a model that allows for recovery of these costs from a public utility’s rate base.

A public utility may be able to use the approach taken by Hydro-Québec, and demonstrate that cost-recovery of EV charging station investments is warranted because of the associated increase in load from EV home-charging. If a public utility is unable to demonstrate that an increase in load justifies cost-recovery, then amending the GRR is another option to achieve a similar outcome. The Province has allowed public utilities to play a similar role in establishing a domestic market for natural gas in transportation through the GRR. Other jurisdictions have taken a variety of legislative approaches to facilitate public utility involvement in the development of EV charging infrastructure; those approaches could also be considered by the provincial government