SUBMISSION ON BEHALF OF

THE CLEAN ENERGY ASSOCIATION OF

BRITISH COLUMBIA ("CEABC")

BRITISH COLUMBIA UTILITIES COMMISSION

PART 2 OF THE INQUIRY INTO THE REGULATION OF

ELECTRIC VEHICLE CHARGING SERVICE

RESPONSES TO AMENDED PANEL QUERIES

March 28, 2019

Summary

In Phase 2 of the BCUC Inquiry into the Regulation of Electric Vehicle ("EV") Charging Service the British Columbia Utilities Commission ("BCUC" or "Commission") is seeking comments on what are essentially economic or market problems relating to the provision of EV charging services ("EV Charging Services").

The Ministry of Energy Mines and Petroleum Resources ("MEMPR") has indicated on behalf of the Province of British Columbia ("Government") that non-exempt utilities ("Non-Exempt Utilities" or "Existing Public Utilities") such as BC Hydro and FortisBC Energy Inc. ("Fortis")can invest in, and will be allowed to recover costs from ratepayers in delivering EV Charging Services ("Government Intentions").

The Clean Energy Association of B.C. ("CEABC") accepts this position and has recast its original submission[1] in accordance with Order G-50-19.[2] It will address the manner in which these services should be delivered with the emphasis on how the playing field might be levelled as between exempt public utilities ("Exempt Public Utilities" or "Market Providers") and Existing Public Utilities who provide EV Charging Services.

Ideally Existing Public Utilities should concentrate on providing loans *to* Market Providers and existing commercial and residential utility customers so they can purchase and install EV charging equipment. BC Hydro has had a loan program for funding investment in energy conservation measures as part of its Power Smart Program. The investment risk would rest with the borrower and not the Existing Public Utility except in the case of default.

[1] Exhibit C2-4, January 28, 2019
[2] Exhibit A-41

CEABC Responses to amended (blacklined) Panel Queries[3]

1. 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? Should non-exempt public utilities be restricted to participate only in remote geographical locations that are currently uneconimical for exempt EV charging providers to serve?

It will be difficult to provide protection even with price regulation because Non-Exempt or Existing Public Utilities are entitled to what amounts to a guaranteed rate of return on their investment including stranded asset protection[4] and Exempt Public Utilities or Market Providers are not. They have no stranded asset protection. Even if they did, they don't have ratepayers that would pay the cost of the stranded assets through increased electricity rates.

This is not a level playing field and a serious attempt must be made to level it. Otherwise the objective of increasing the number of charging stations throughout the Province might not materialize if Market Providers believe they cannot make a fair return on their investment including the return of their capital and invest in other jurisdictions.

The CEABC has assumed that the capital investment required for "*slow charging*" e.g. Level 2 or below is not going to be difficult to attract to any part of the Province. The capital required is relatively small and is not a barrier to providing this type of charging service. The investment can be made by individual home and business owners or third parties. It is not a market segment that Existing Public Utilities should be involved in with the possible exception of providing loans to those that want to invest in the slow charging.

The CEABC offers the following high level comments and suggestions in relation to taking some of the tilt out of the playing field.

1.1 Business Case

Existing Public Utilities should be required to file overall business cases/applications for the investments they intend to make in EV Charging Services on a non-confidential basis for advance approval by the BCUC. The business cases would include the financial models and the full details of how they expect to make their intended rate of return and the identification of any requirement for cross subsidization from the Existing Public Utility's ratepayers.

It is imperative that all the material filed in support be non-confidential so that all parties have access to this information, especially Market Providers. Existing Public Utilities are going to receive a regulated rate of return on their investment so there is no harm in requiring them to provide the full details of their business plan to their potential competitors. Market Providers should not be required to put capital at risk in an information vacuum. In the non-confidential proceedings, they can raise any concerns about the efficacy of the business case material or, given the risks, decide to invest elsewhere.

Any subsequent amendments to an approved business plan should be filed for public view on a non-confidential basis.

[3] Appendix A to Exhibit A-41
[4] UCA, Section 59(5).

1.2 Return on Equity for Existing Public Utilities

The return on equity that Fortis includes for its business case calculations should not be problematic. Its debt to equity ratio and return on equity fall within a normal market range for a company with its risk profile and size. In contrast, BC Hydro, whose sole shareholder and guarantor is the Government of B.C., has a debt to equity ratio that is forecast to change drastically over the next decade, and return on equity that has been suspended in recent years but will be reinstated to BCUC oversight in F2022.

The Government shareholder is committed to raising its equity contribution to BC Hydro from the current level of about 20% (prior to the impact of writing off the $1.1 billion balance in the rate smoothing account), to a level of 40%, before reinstating its dividends from BC Hydro.

However, up until a recent announcement by MEMPR, this additional equity contribution was to be made without any corresponding increase in net income to be derived from this increasing investment.

The consequence of these two Government initiatives (namely, the pledge to increase equity to 40% by foregoing dividends, and the zero return required on all of that increased equity), has meant that BC Hydro been assuming an artificial cost of capital of 100% debt in its recent pre-investment decisions. This has led to a totally distorted financial analysis which, if it were to continue, would be to the detriment of any competitors such as Market Providers, who require a return on equity commensurate with the risk, or such as Fortis, which receives a regulated rate of return on equity.

However, in a recent News Release, MEMPR stated[5] that the Government:

"… intends to return oversight of BC Hydro's net income to the BCUC in 2021-22, following a two-year transition period to enable the BCUC to complete its review its review of BC Hydro's next two-year revenue requirements application, and to undertake a process to determine an appropriate rate of return."

The exact outcome of restoring the BCUC's oversight is not fully known at this time. However, it should be prudent to assume that the Commission will return to its previous practice of determining a generic cost of equity capital, for use in determining BC Hydro's net income each year, and for use by BC Hydro in all of its future investment decision making.

To continue BC Hydro's current practice of using a zero return on equity, would not be fair either to the taxpayer shareholders (who will be funding the large increases in equity investment), or to any competing Market Providers. Under a BC Hydro assumption of zero return on equity, the playing field would certainly not be level as between BC Hydro and Market Providers.

Nor would the field be level as between Fortis and BC Hydro, if BC Hydro were allowed to provide EV charging services in Fortis service territory or vice versa. Since these are not monopoly services, the concept of service territories isn't relevant. In addition, in order to create brand loyalty, it may be desirable to provide EV charging services along the main highway corridors in the Province even where these corridors pass through another Existing Public Utility's service territory.

[5] News Release dated February 14, 2019.

Accordingly, CEABC recommends that for all future business case analyses of potential EV Charging Service investments, BC Hydro should be instructed to assume the government's forecast 40% equity ratio, and a return on equity to be determined by the Commission from time to time.

1.3 Interconnection

Interconnecting to the BC Hydro transmission or distribution systems can be an expensive and time consuming exercise for third parties. Third parties have to pay BC Hydro to undertake studies to determine if interconnection to the BC Hydro system is a viable financial proposition i.e. third parties must pay the costs of interconnection on their side of the meter and can also be required to pay for certain costs on BC Hydro's side of the meter.

In this interconnection evaluation, BC Hydro has a potential conflict of interest, in that it is both the interconnecting entity and a competing EV charger. Market Providers need to be confident that their interconnection requests are not delayed due to BC Hydro's conflicting competitive interest.

The B.C. Supreme Court recently reviewed some of the problems that can occur with this exercise.[6] The CEABC is not implying that the problems reviewed in that decision regularly occur. Rather it is suggesting that for the purpose of providing EV charging services Existing Public Utilities should be subject to the same transmission or distribution interconnection processes as third parties. Their applications should be processed in the same queue as third parties, and the resulting paperwork should be available for public review on a non-confidential basis.

As a further precaution against the potential for conflicting advantages, BC Hydro or Fortis should be required to respond within specified timelines. Specified timelines have been imposed upon BC Hydro in the past and the BCUC should require such timelines in the case of all EV Charging interconnection requests.

Existing Public Utilities already have access to interconnection applications by third parties and there is no reason why the reverse shouldn't also apply. These same utilities are also going to have access to Market Providers' load information which could help Existing Public Utilities determine where to invest in EV charging services. This load information is sensitive competitive information and, as such, it must be held in confidence by the Existing Public Utility, including with respect to internal use.

1.4 Rate for Electricity

Existing Public Utilities and Market Providers should purchase electricity from Existing Public Utilities on the same terms and conditions including price and metering. With respect to the electricity required by Existing Public Utilities to provide EV charging services, they should be treated as customers of themselves.[7] EV charging services should not be treated as system extensions. Rather they should be treated as what they are: consumptive use of electricity by an electric appliance e.g. equivalent to a dryer in a laundromat. This will help prevent but not necessarily eliminate the potential for cross subsidization within an Existing Public Utility to the detriment of Market Providers.

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[6] See http://www.courts.gov.bc.ca/jdb-txt/sc/18/09/2018/BCSC0971.htm where the Court in paragraphs 5,6,35 and 40 made some comments about the BC Hydro interconnectionprocess with respect to a specific request for interconnection.

[7] Assuming they aren't providing these services in another Existing Public Utility's service territory, in which case they would be a customer of the Existing Public Utility in the relevant service territory.

1.5 Loans

Existing Public Utilities can greatly enhance the growth of an EV Charging infrastructure by providing loans *to* Market Providers and existing commercial and residential utility customers so they can purchase and install EV charging equipment. Ideally, this should be their primary concentration.

For many years, BC Hydro has had a loan program for funding investments in energy conservation measures as part of its Power Smart Program, and these EV Charging infrastructure loans could be modeled after those Power Smart loans. By utelizing such a loan program, BC Hydro could ensure that most of the investment risk would rest with the borrower and not the Existing Public Utility, except in the case of default.

2. **(Removed).**

3. **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?**

   Yes, they should constitute a separate class for the purpose of accurately aggregating the costs of service, although there should not necessarily be a need to create a distinctly different tariff at the wholesale level – the existing commercial tariffs should be adequate for the wholesale sales.

   As far as the need for a retail tariff is concerned, it should be expected that EV owners will be as price sensitive as gasoline vehicle owners. The retail price charged at EV charging stations can only be greater than the cost to EV owners of charging their vehicles at home or at their businesses to the extent that any premium is based on convenience or, in the case of long distance travel, necessity. This provides a natural competitive cap on the retail market price, avoiding the need to have a designated retail tariff.

   The CEABC has no special expertise in sizing the EV Charging Market and only wishes to point out what needs to be considered when assessing the business cases brought forward by Existing Public Utilities, including the rate that must be set.

4. **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?**

   No. To be fair to the other classes of ratepayers, as well as to any competing Market Providers, any required subsidies/financial assistance should be provided by senior governments, with the same financial assistance being available to all competitors.

   However, it is not yet clear whether this is consistent with Government Intentions, and if it is not, then the costs may have to be recovered from other customer classes.

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

   None. Any losses should be subsidized directly by senior governments and they can decide if any cap is required. However this may not be consistent with Government Intentions, in which case the costs would have to be recovered from other customer classes.

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?**

Senior governments, for the same reasons as stated in CEABC's response to question 4. However, if this is not consistent with Government Intentions, then the costs may have to be recovered from other customer classes.

6. **In the context of BCUC economic regulation, what regulatory justification is required to allow existing utilities to cross subsidize EV charging services?**

   The allowing of cross-subsidization should require both consistency with Government Intentions and also the likelihood that the incremental load will increase to the point where the cross-subsidization is no longer required.

   If EV charging adds incremental load, does that justify cross-subsidization?

   Yes, possibly, provided that the incremental load is likely to increase to the point where cross subsidization in no longer required.

   Would the incremental load appear without the subsidization?

   This should only be determined on a case by case basis.

7. **(Removed)**

8. **Do non-exempt public utilities participating in the EV charging market, have any obligation to serve EV charging customers?**

   There is no absolute obligation to serve. Since it is subject to BCUC regulatory oversight, the BCUC would determine the scope of the obligation to serve.

9. **(Removed)**

10. **Any other comments that may be helpful to the Panel.**

    None at this time.

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

    There should be no need for a specific tariff provision or a new wholesale tariff. The existing commercial tariff is adequate. EV charging services are no different than any other use of electricity for other commercial purposes such as electric dryers in a laundromat. See CEABC response 1.4. (i.e. just use the existing commercial tariffs.)

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?**

    See the CEABC's response to question 11.

13. **Is EV charging infrastructure considered to be "distribution equipment" for the purpose of section 3(1) of the Electrical Safety Regulation?**

    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?

No, it is not "distribution equipment," and it doesn't matter what the status of the provider is. In its reply argument[8] MEMPR said:

"Section 3 of the Electrical Safety Regulation states that the regulation "does not apply to a public utility as defined in the UCA in the exercise of its function as a utility with respect to the generation, transmission and distribution of electrical energy" (underlining added).Technical Safety BC has advised MEMPR that it considers EV charging stations to fall outside of a public utility's generation, transmission and distribution system and therefore the requirements of the Electrical Safety Regulation always apply to the installation and the operation of an EV charging station. Technical Safety BC also advises that delegated local governments share this interpretation."

The CEABC agrees with the MEMPR's interpretation and wishes to add that in the case of EV charging services the electricity provided at the customer's side of the meter has to be converted by an electrical "*appliance*" or "*apparatus*" into a product that can be used to charge an electric vehicle battery (e.g. a "*charger*"). It is this apparatus that is subject to the Electrical Safety Regulation and not the electric grid.

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.

Because of the general supervisory authority that the BCUC has over public utilities in Section 23 of the Utilities Commission Act ("UCA") including the ability to make orders about "equipment" and "appliances" as distinct from "extension of works or systems" there is probably no need for amendments to the Greenhouse Gas Reduction Regulation with respect to the regulation of EV charging services provided by Existing Public Utilities.

As well, Section 45 of the UCA requires certificates of public convenience and necessity ("CPCN") for the construction, operation or extension of public utility plant or system. It is arguable that there is a difference between "equipment" and "appliances" and "plant or system" and that no CPCN is required with respect to "equipment" and "appliances". In the event of this outcome, the BCUC could not exercise this form of regulatory oversight in relation to Existing Public Utilities that provide EV charging services.

In any event, any amendments to the Greenhouse Gas Reduction Regulations and the scope of these amendments will be a function of Government Intention. As this is not clearly known it is difficult to comment on the need for, and scope of possible amendments.

[8] Exhibit C19-11, Reply Argument, page 2, BCUC Phase 1 – The Regulation of Electric Vehicle Charging Service.