

WRITTEN SUBMISSIONS

FortisBC Inc. Application for Approval of Rate Design and Rates for Electric Vehicle Direct Current Fast Charging Service

Wednesday, May 26, 2021.

By D. Flintoff

In Exhibit A-16, the Panel requests oral submissions from FBC and interveners to clarify and elaborate on their final arguments and supplementary arguments.

Appendix A

Interpretation of the purpose and object of the *Clean Energy Act (CEA)* and *Greenhouse Gas Reduction (Clean Energy) Regulation (GGRR)*

a) FortisBC Inc. (FBC) submits that the British Columbia Utilities Commission (BCUC) must give section 18 of the CEA and section 5 of the GGRR “a fair, large and liberal interpretation that best ensures the attainment of its objects” in accordance with the *Interpretation Act*. FBC argues that the purpose and object of the CEA and GGRR are “to endorse and encourage the actions of public utilities to invest in eligible charging stations in order to reduce greenhouse gas emissions in B.C.”

- a. How does a “fair, large and liberal interpretation” lead to the interpretation that the CEA and GGRR “endorse and encourage” public utilities (as opposed to non-regulated EV charging service providers) to invest in EV charging stations?

FBC refers to Section 8 of the Interpretation Act which states:

Enactment remedial

8 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.

As there is no remedial aspect, I assume that the BCUC will provide a fair interpretation and do nothing to prevent the prescribed undertaking by the public utility in the attainment of its objects and set appropriate rates. It is reasonable to assume that the BC Government objectives are to encourage public utilities to invest in EV charging stations by way of prescribed undertakings but not as opposed to non-regulated EV charging service providers. I do not assume that prescribed undertakings by public utilities were meant to be permitted to the disadvantage of the non-public utilities.

The prescribed undertaking by a public utility to construct or purchase an eligible charging station must (reasonably expects) come into operation by December 31, 2025.

- b. Why is it not equally plausible that a reduction of greenhouse gas emissions in BC can be achieved by public utilities not investing in EV charging stations, limiting investments in certain segments of the EV charging market only, or having other EV charging service providers make the investments in a competitive market?

It is equally plausible that a reduction of greenhouse gas emissions in BC can be achieved by public utilities not or limiting investments in EV charging stations. However, the GHG emission reduction timeline might not be met.

It is equally plausible that a reduction of greenhouse gas emissions in BC can be achieved by public utilities by limiting investments in certain segments of the EV charging market only to less desirable charging sites to encourage the non-regulated EV charging service providers to enter the marketplace. If the public utilities occupy the high volume (more profitable) sites then the non-regulated EV charging service providers may be reluctant to enter the marketplace.

It is equally plausible that a reduction of greenhouse gas emissions in BC can be achieved by having other EV charging service providers make the investments in a competitive market. If the non-regulated EV charging service providers make similar investments in a competitive market, then it is possible that a similar reduction of greenhouse gas emissions in BC can be achieved.

b) With respect to the interpretation of “eligible charging site” as contained in section 5 of the GGRR, FBC submits:

When interpreting legislation, attention must also be placed on its purpose. When reading section 5 of the GGRR as a whole, it is apparent that the purpose of the definition of “eligible charging site” is to introduce the concept of location so that site limits on specific municipalities can be incorporated. Therefore, the key aspect of the “eligible charging site” is the municipality in which it is located, as this will determine the applicable “site limit” (if any). Other than determining the applicable “site limit” (if any), there is no other purpose of the definition of “eligible charging site”.

a. How does the notion of a site limit support the purpose and objective of section 18 of the CEA and section 5 of the GGRR?

The eligible charging site limit for a limited municipality (population ≥ 9000) serves the purpose and objective of limiting the number of prescribed undertakings while allowing municipal and other (non-public utilities) service providers the opportunity to participate in the DCFC market.

Interpretation of “eligible charging site”

3. If one area has multiple clusters of EV charging stations, would that entire area be considered one “site” or would each cluster be considered a separate “site” for the purposes of section 5(1) and 5(2)(b)(ii) of the GGRR?

a. Scenario A: a limited municipality has a limit of 2 eligible charging sites, and it currently only has eligible charging stations located in one parking lot, but the stations are located as one cluster at one end of the parking lot and another cluster at the other end. The existing stations in the lot are not owned and operated by FBC, could FBC construct and operate eligible charging stations in a separate cluster in the same parking lot as a prescribed undertaking?

The GGRR defines “eligible charging site” as a site where one or more eligible charging stations are located; but does not define “site”. However, site limit is defined. As long as the “site limit” is not a consideration, any location can be considered as an “eligible charging site”. Therefore FBC could construct and operate eligible charging stations in a separate cluster in the same parking lot as a prescribed undertaking.

b. Scenario B: a limited municipality has a limit of 2 eligible charging sites, and it currently only has eligible charging stations located at one shopping centre. The shopping centre has 3 different parking lots (i.e. lots A, B, and C). Lots A and B currently have eligible charging stations that are not owned and operated by FBC, could FBC construct and operate eligible charging stations in lot C as a prescribed undertaking?

The GGRR defines "eligible charging site" as a site where one or more eligible charging stations are located; but does not define "site". However, site limit is defined. As long as the "site limit" is not a consideration, any location can be considered as an "eligible charging site". As "site" is not defined beyond a location and lots A and B already have charging stations, the number of existing eligible charging sites (2), would be exceeded if FBC constructs and operates an eligible charging stations in lot C as a prescribed undertaking. However, as the limit of prescribed undertakings may only apply to public utilities and if the other charging sites are not constructed and operated as eligible charging stations (prescribed undertakings) then FBC could construct and operate eligible charging stations in lot C as a prescribed undertaking.

- c) Would the answer to the preceding questions change if there were multiple EV charging station operators operating within the same area or within each cluster of charging stations?

As the limit of prescribed undertakings only applies to public utilities and if the other charging sites are not constructed and operated as eligible charging stations (prescribed undertakings) by non-regulated EV charging service providers then FBC could construct and operate eligible charging stations in lot C as a prescribed undertaking. This assumes that a prescribed undertaking is an electric vehicle charging stations provided by a public utility only in the GGRR.

Comments:

Is there a distinction between an eligible charging station (prescribed undertaking by a public utility) and a charging station provided by others (non-regulated EV charging service providers)?

If so, then for a limited municipality having a population of 90,000, 10 eligible charging stations can be prescribed undertakings by a public utility even though there appears to be no limitations on the number of charging stations provided by others and no limitations on the number of public utilities.

However, can another public utility also provide 10 eligible charging stations as prescribed undertakings?

Was the intent to limit the number of total public utility eligible charging stations to 10 total or 10 for each public utility?

"Site" is not limited by location; only by the number of eligible charging stations provided as prescribed undertakings by a public utility.

It appears that only the eligible charging stations provided as prescribed undertakings by a public utility are limited.

4. Investment time horizon and keeping up with technology

FBC states that its "proposed rates are based on a cost of service analysis of its eligible charging stations and assume a reasonable level of use based on FBC's experience with its existing stations and projected growth in sales of EVs in BC over the next 10 years." However, interveners note that the inputs used in FBC's model contain considerable uncertainty and are difficult to predict over the 10 year period. FBC does not believe a formal EV charging service resource plan is required at this time because it is not clear whether additional investment will be required to further support public fast charging services in FBC's service territory.

FBC notes that after 10 years, its charging stations technology will become obsolete and the equipment will have

reduced reliability. Flintoff submits that EV technology is rapidly changing and the industry will most likely produce EVs with increased range, requiring higher battery charging rates and shorter charging times.

- a) How would FBC ensure that its EV charging station technology is kept current and competitive with other service providers?

One way to ensure that public utility EV charging station technology is kept current and competitive with other service providers is to set the rates high enough to allow for life cycle cost and renewal at end of life. This goes to the purpose of the prescribed undertakings and whether or not they are just temporary to help establish an EV culture in BC.

If a prescribed undertaking has an in-service date no later than December 31, 2025, then one might expect the programme may be retired after December 31, 2025, depending on its success in encouraging an uptake in the number of EVs in use in BC.

Other Technologies:

In China, battery swapping is another means of recharging instead of EV charging stations where space is a limited commodity and plugged-in charging has proven to be slow, inconvenient, and inefficient¹.

Sweden has successfully tested its “smart-road” for electric trucks.² Israel³ is looking at road electric charging. China announces new national standards for wireless EV charging⁴. There are others looking at this wireless charging solution to EV charging.

Magnetic induction technology embedded in the roadways may be in the future but we will see higher-powered chargers and improved EV battery energy density (kWh/Kg.) in the near future so EVs can more readily adoptable. In the meantime, we need to address the current problem of GHG emissions.

- b) How would FBC address the disposal and retirement of its EV charging equipment if it becomes obsolete sooner than expected?

The BCUC could remove the ability of FBC to address the disposal and retirement of its EV charging equipment if it becomes obsolete sooner than expected by not allowing it to enter the rate base as stranded assets or other means. While this is not normal regulatory practice, the CEA sec. 18(2) states, “the commission must set rates that allow the public utility to collect sufficient revenue in each fiscal year to enable it to recover its costs incurred with respect to the prescribed undertaking.”

¹ https://www.gogoro.com/news/battery-swapping-can-help-transform-cities/?utm_source=google&utm_medium=cpc&utm_campaign=nb&gclid=EAlaIQobChMI4qC75_jE8AIVWiCtBh2GCASpEAAYASAAEgK9oPD_BwE

² https://www.greencarreports.com/news/1127520_world-first-in-road-charging-test-for-trucks-successful-highway-speeds-next

³ <https://electrek.co/2020/06/01/israeli-start-up-wants-to-electrify-roads-that-charge-your-car-while-driving/>

⁴ <https://www.greencarcongress.com/2020/05/20200508-witricity.html>

The BC Government's intent appears to indicate that all costs related to a prescribed undertaking must be recovered in each fiscal year. However, a few questions remain.

- *Does the CEA expect the prescribed undertaking costs to be recovered from all or some of the ratepayers whether they use or benefit from the prescribed undertaking or not?*
- *Does the CEA expect the prescribed undertaking costs to be recovered from only those using the prescribed undertaking?*
- *Do the costs recovered include all costs, including stranded costs?*

I assume the intent of sec. 18(2) of the CEA to include all costs (including any stranded costs or other costs) to be recovered from only those benefiting from or using the prescribed undertaking. If this is not the case, then the Panel should hear arguments and seek clarification from the BC Government.