



May 3, 2018

Sent via email/eFile

BCUC REGULATION OF ELECTRIC VEHICLE CHARGING SERVICE INQUIRY EXHIBIT A-18
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Mr. Gary Guthrie
gsguthrie@shaw.ca

Re: British Columbia Utilities Commission – An Inquiry into the Regulation of Electric Vehicle Charging Service – Project Number 1598941 – Information Request No. 1

Dear Mr. Guthrie:

Further to your March 15, 2018 filing of written evidence with respect to the above-noted Inquiry, enclosed please find British Columbia Utilities Commission (BCUC) Information Request No. 1. In accordance with the regulatory timetable, please file your responses on or before Wednesday, June 6, 2018.

The BCUC's Rules of Practice and Procedure (Rules) set out in Order G-1-16 provide guidance and establish requirements for participants in BCUC proceedings. Subject to section 14 of the Rules, all parties that receive an information request must provide full and adequate response to each question.

The BCUC's Rules of Practice and Procedure can be viewed here:
<https://www.ordersdecisions.bcuc.com/bcuc/orders/en/127520/1/document.do>

If you have any questions regarding the information request process, please contact Commission Secretary.

Sincerely,

Original signed by:

Patrick Wruck
Commission Secretary

/dg
Enclosure



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

INFORMATION REQUEST NO. 1 TO GARY GUTHRIE

A. BASIS FOR EV CHARGING SERVICE REGULATION EXEMPTION

**1.0 Reference: Exhibit C16-2, pp. 1-3; Exhibit C30-2, p. 6; Exhibit C6-2, p. 5
Basis for regulation exemption**

On pages 1 to 3 of Exhibit C16-2, Gary Guthrie (Guthrie) states:

I believe that rate fairness for resold electricity can be achieved by open competition among independent third party EVSE providers, without BCUC oversight.

Although I believe the Act needs to be revised to consider EVSEs, I think it is premature to make specific long-term decisions on EVSE installations, ownership, charge rates, etc. Any BCUC actions should be temporary or time limited until the EV market matures.

An EVSE can be quickly established in an existing parking lot, with access to power and comparatively inexpensive charging station equipment. EVSEs could expand very quickly, once the EV industry matures.

- 1.1 Please confirm, or explain otherwise, whether Guthrie views that a market that is not subject to any utility regulation is a means to achieving open competition among independent third party providers.
 - 1.1.1 If third-party providers are exempt from utility regulation (in full or in part), please discuss how third-party providers and regulated public utilities co-exist such market.
- 1.2 Guthrie states that any BCUC actions should be temporary or time limited until the EV market matures. Would it be more practical and regulatory efficient for the BCUC to continue the exemption and initiate another inquiry after a period of time (e.g. five years) to determine if the exemptions should continue? Why or why not?
- 1.3 In a competitive market, there are low barriers to enter and exit. Please discuss the potential issues, if any, should EV charging service providers freely exit the market at any time.

On page 6 of Exhibit C30-2, Vancouver Electric Vehicle Association (VEVA) states:

VEVA believes that charging stations in British Columbia should be exempted or excluded from the definition of a “public utility” in the Utilities Commission Act, [RSBC 1996] CHAPTER 473 (UCA).

On page 5 of Exhibit C6-2, BC Sustainable Energy Association and sierra Club BC (BCSEA) states:

7. The Commission should consider, either within this Inquiry or in a follow-on proceeding, exercising its authority under section 88(3) of the UCA to exempt from some or all of the provisions of the Act certain classes of entities providing EV charging

services (to be defined) that but for the exemption would be “public utilities” and regulated under the Act. (For clarity, this includes entities providing EV charging services that may not currently meet the definition of “public utility” but that likely would do so if they started to receive compensation for their EV charging services.) An exemption under s.88(3) requires the advance approval of the Minister responsible for BC Hydro, i.e., the Minister of Energy, Mines and Petroleum Resources.

On May 19, 2016 by Order G-71-16, BCUC granted Bakerview EcoDairy an exemption from Part 3 of the *Utilities Commission Act (UCA)*, except sections 25, 38, 42, 43, 44 and 49.¹

1.4 In Guthrie’s view, if BCUC were to recommend a class of cases exemption to government in relation to EV charging service, what factors should be considered in developing the classes? Further, what sections of the UCA, in Guthrie’s view, should EV charging service be exempt from?

1.5 Does Guthrie have a view on what the classes could be (e.g. based on different levels of EV charging equipment, charging station geographic locations, type of dwelling, owner/operator structure, some combination of the above, or others)? If yes, please describe.

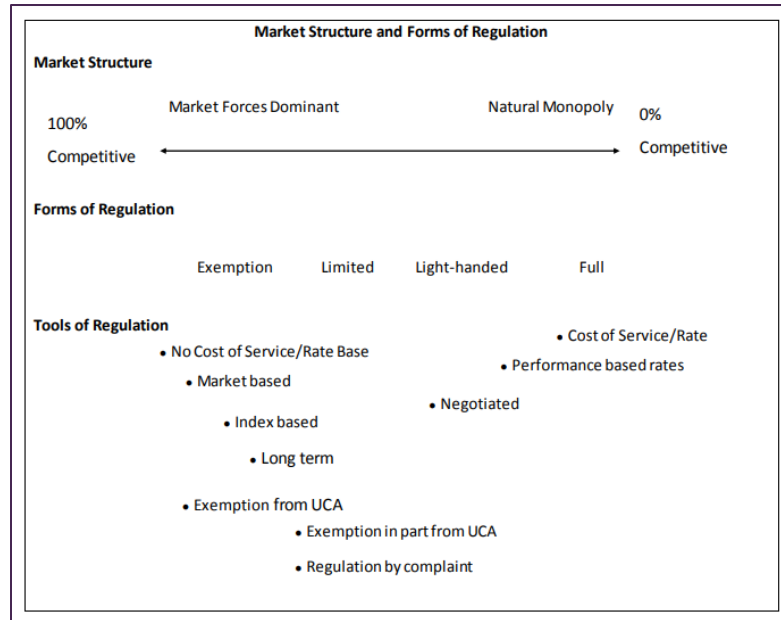
2.0 Reference: BCUC Inquiry into FortisBC Energy Inc.’s Offering of Products and Services in Alternative Energy Solutions (AES) and Other New Initiatives proceeding, Order G-231-13A with reasons for decision, pp. 23–24 Proposed regulatory framework and guide for thermal Energy Service Utilities

On pages 23 and 24 of the Reasons for Decision attached to Order G-231-13A, the BCUC states:

The [AES]² Inquiry found that the form of regulation should be determined by the market structure. The Panel agrees with this assessment. The figure below illustrates the Panel’s view of the relationship between market structure and the various tools of regulation.

¹ http://www.bcuc.com/Documents/Proceedings/2016/DOC_46352_05-19-2016_Bakerview-Exemption-Approved_G-71-16.pdf

² Inquiry into FortisBC Energy Inc.’s Offering of Products and Services in Alternative Energy Solutions and Other New Initiatives



The Panel in Order G-231-13A also agreed with the basic regulatory concepts outlined in the AES Inquiry Report whereby regulation should be the option of last resort and competition should always be preferred over regulation.

- 2.1 Please discuss whether the BCUC in this EV Inquiry should consider the relationship between market structure and forms of regulation, as shown above in the diagram. If not, why not?
- 2.2 Suppose the BCUC uses the above diagram as a guide to determine the appropriate form of regulation. Given the market structure noted in Guthrie’s submission, what would be the corresponding form of regulation and tool of regulation? If any different, please explain in terms of the Guthrie’s view of the current market structure and the expected market structure in the next 3-5 years.

B. INVESTMENT

**3.0 Reference: Exhibit C16-2, p. 4
DCFC infrastructure**

On page 4 of Exhibit C16-2, Guthrie states:

Battery technology improvements have increased the density (greater range) and charge rate capabilities (shorter recharge times) of Lithium Ion batteries. Work on alternative batteries (e.g.: solid-state supercapacitors) is promising, and once scalability issues are resolved, these batteries may quickly become industry standard. The batteries used today will not have the same charge characteristics and requirements from those used in the near future.

Most EV drivers charge their EV at home and/or at work. In regular use, it’s unlikely that drivers will need third party chargers, except for extended daily usage or on long out-of-town trips. As battery capacities and the number and type of DCFC stations continue to grow, the use of existing, public Level 1 and 2 chargers will drop.

- 3.1 Please discuss whether the demand for DCFC stations will decrease as battery technology improvements increase the range and shorten recharge times.

- 3.2 Given the expected battery technology improvement, in Guthrie's view, are there concerns that the current investment of public EV charging assets will need to be replaced in the near future? Why or why not? And what is the timeframe?

C. TECHNOLOGY

**4.0 Reference: Exhibit C16-2, pp. 3–4
EVSE vehicle connector standards and payment management systems**

On pages 3 and 4 of Exhibit C16-2, Guthrie states:

There are currently multiple connector standards. As the industry matures, there will be a convergence to one or two common connectors (similar to the existing ICE service stations with gasoline and diesel nozzles). EV manufactures are still developing their EV production plans. Hyundai/Kia recently announced that they are switching from the CHdeMO standard to SAE J1772 Combo inlet (also called CCS Combo). More changes like this will occur.

The current proprietary EVSE hardware and software system has a limited number of providers (e.g.: ChargePoint) which may inhibit third party providers EVSE options. This system may change to one similar to that in Europe which offers greater flexibility. This is another EVSE aspect that could change in the near term.

- 4.1 In Guthrie's view, what role would the BCUC play, if anything, related to EV connector standards? Please discuss in light of the BCUC's jurisdiction as a public utility regulator. Are there other entities that would be more appropriate for such oversight?
- 4.2 In Guthrie's view, please discuss the degree of captivity in the North American EV charging station market related to payment management systems.
- 4.2.1 What role would the BCUC play, if anything, in terms of captivity of monopoly/oligopoly at the payment management systems level? Please discuss in light of the BCUC's jurisdiction as a public utility regulator. Are there other entities that would be more appropriate for such oversight?

D. RATES

**5.0 Reference: Exhibit C16-2, pp. 4, 6
Cross-subsidization**

On page 4 of Exhibit C16-2, Guthrie states:

There also exists the possibility that utilities could use its existing non-EV customers to subsidize the cost of power sold to its EVSE operations.

Further, on page 6 regarding the question of should public utilities include charging stations in their regulated rate base or through a separate non-regulated entity, Guthrie states:

The two must be kept separate. If the utility wants to compete with private EVSEs it should manage its EVSE service separately from its regulated business.

- 5.1 Please clarify on what basis utilities should use its existing non-EV customers to subsidize the cost of power sold to its EVSE operations.

- 5.2 When competing with private third-party providers, please clarify how a regulated public utility can subsidize its EVSE operations if the public utility is to manage its EVSE service separately from its regulated business.