

LAW DEPARTMENT

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June 6, 2018

BY EMAIL: Commission.secretary@bcuc.com

British Columbia Utilities Commission
Suite 410 - 900 Howe Street
Vancouver, BC. V6Z 2N3

Attention: Commission Secretary - Mr. Patrick Wruck

RE: BCUC Inquiry into the Regulation of Electric Vehicle Charging Service - Information
Request No. 1 from ChargePoint Inc.

Dear Commission Secretary,

Please find enclosed the City of Vancouver's responses to the Information Request No. 1 from ChargePoint Inc.

Sincerely,



for: David K.S. Li

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**CITY OF VANCOUVER RESPONSES DATED JUNE 6, 2018 TO INFORMATION
REQUEST NO. 1 FROM CHARGEPOINT INC. DATED MAY 15, 2018**

**BRITISH COLUMBIA UTILITIES COMMISSION
INQUIRY INTO THE REGULATION OF ELECTRIC VEHICLE CHARGING SERVICE**

ChargePoint Inc. (ChargePoint) Information Request (IR) No. 1 to City of Vancouver (COV)

May 15, 2018

**1. Reference: Exhibit C5-2, City of Vancouver Written Evidence, p. 12
BCUC's Role in Regulating Safety, Reliability and Rates**

In Section 3.3 of Exhibit C5-2, the City of Vancouver makes reference to the Commission's role in regulating the safety, terms and reliability of charging stations and services and the rates charged to EV drivers by stratas and landlords.

On page 12 of Exhibit C5-2, the City discusses the regulation of charging stations, and states:

"The safety of EV charging stations must be regulated. This regulatory oversight is critical from the perspective of avoiding personal injuries or death and/or property damage. Similarly, a safety incident at an EV charging station will rightly raise concerns about the technology and hinder the adoption of EVs."

- 1.1 Please explain the incremental steps that COV expect the BCUC would take beyond the responsibilities of COV, Technical Safety BC, and Measurement Canada, relative to administration of the BC Electrical Code under the *Safety Standards Act* and measurement devices under the federal *Weights and Measures Act*, respectively.

COV Response to IR 1.1: While the City believes a provincial body is the most suitable to regulate the safety of EV charging stations across British Columbia, the City is not suggesting that it must be the BCUC. It could be Technical Safety BC or some other provincial body.

In order to instill public confidence in the use of EV charging stations anywhere in the Province, there should be a consistent safety standard that applies throughout the Province for EV charging stations. Currently, there may be differences in safety standards among different municipalities, as well as differences between EV charging stations installed within a municipality versus stations installed outside of a municipality. The charging station technology is also relatively new and continues to evolve. Public utilities as defined under the Utilities Commission Act are also exempt from the Electrical Safety Regulation under the Province's Safety Standards Act. For these reasons, a provincial body is the most suitable to establish a consistent safety standard for EV charging stations. It is up to the Province to decide which provincial body is most appropriate.

- 1.1.1 Please list any COV-administered bylaws relevant to EV charger safety.

COV Response to IR 1.1.1: The CoV's Electrical By-law No. 5563 applies to the installation, operation and maintenance of electrical equipment in the City of Vancouver – including EV charging stations. This By-law incorporates the Canadian Electrical Code, Part 1, 23rd Edition, Safety Standard for Electrical

Installations. The CoV's Standards of Maintenance Bylaw 5462 and Building Bylaw 10908 are also relevant for the provision and operation of EV charging infrastructure.

**2. Reference: Exhibit C5-2, City of Vancouver Written Evidence, p. 13
BCUC's Role in Regulating Safety, Reliability and Rates**

On page 13 of Exhibit C5-2, the City discusses regulation of the terms of charging service and the rates charged to EV drivers, and states:

"For the terms of service and rates for EV charging service, the Commission should let the market decide where EV owners have competitive choices - particularly in the public charging service sector. The market will respond and innovate to offer a variety of options when competition is allowed to flourish. For other situations where competitive choices are constrained, such as in the strata or landlord owned EV charging service categories, the Commission should regulate on a complaint-basis, as it does under the TES Guidelines for thermal energy services."

- 2.1 Please confirm that service and pricing issues arising in relation to strata owned or operated charging stations could be resolved by appearances before the Civil Resolution Tribunal, consistent with the provisions of the *Strata Property Act*. If not confirmed, please fully explain in your response.

COV Response to IR 2.1: The Strata Property Act and Civil Resolution Tribunal were established to govern strata ownership issues. Issues in respect of service, and in particular, pricing, of EV charging stations are relatively new and specialized. The COV is not certain that the Civil Resolution Tribunal has the appropriate resources or expertise to deal with such matters.

The pricing of EV charging stations may influence a number of factors that are intrinsically intertwined – including, on the user side, whether and how often a station is used, and on the station owner/operator side, whether to invest in more stations and how well stations are maintained (which will directly impact safety). There is also a relationship between the price to use an EV charging station in a residential building versus the price to use a public station. For example, if the price gap between the two is significant, it may drive users towards the cheaper alternative resulting in over and under-utilized stations – neither of which is good from a public policy standpoint.

For these reasons, the COV believes that a provincial body, such as the BCUC, with the jurisdiction to set policy across the Province may be more appropriate. Regardless of the body chosen by the province, the BCUC or the Province should consider providing guidance in terms of reasonable rates that stratas should charge and what factors to consider when setting such rates including factors such as capital costs, variable and fixed operating costs, maintenance costs, rates charged by other comparable stratas, and public charging fees.

Another obstacle to having more EV charging stations in existing strata buildings is that a strata corporation may prevent the installation of such stations. This barrier can be resolved through what are referred to as "Right to Charge" rules. These rules typically obligate strata corporations to allow the installation of EV charging where it is technically feasible and safe. It does not necessarily obligate the strata to bear any costs of such an installation (these may be the sole responsibility of the individual owner), but does provide clearer legal recourse to strata owners where strata corporations choose not to allow it. California is an early leader in respect of such rules. Ontario, Hawaii and the Netherlands have also introduced similar rules. In order to provide strata owners similar

opportunities as house owners to install and use EV charging stations at home, the City encourages the Province to consider adopting "Right to Charge" rules – either by amending the Strata Property Act and Rental Tenancy Act or otherwise.

- 2.2 Please confirm that BC's Residential Tenancy Branch may deal with disputes related to charging services or rates, in the same fashion it adjudicates other landlord-tenant disputes relating to lease agreement entitlements. If not confirmed, please fully explain your response.

COV Response to IR 2.2: The considerations discussed in our response to IR 2.1 apply to this IR.

- 2.3 Please list any COV-administered bylaws relevant to EV charging in stratas or apartments.

COV Response to IR 2.3: In addition to the City's Electrical By-law as discussed in the City's response to IR 1.1.1, the Standards of Maintenance By-law requires that all electrical systems, which include electric vehicle charging infrastructure, be kept accessible and in safe working order. The City also administers construction requirements for EV charging infrastructure in new multi-unit residential buildings under the Vancouver Building By-law. Beginning January 1, 2019, these requirements will be split between the Vancouver Building By-law (life safety components) and the Parking By-law (requirements for number of equipped stalls, based on building use).

**3. Reference: Exhibit C5-2, City of Vancouver Written Evidence, p. 13
BCUC's Role in Regulating Safety, Reliability and Rates**

On page 13 of Exhibit C5-2, the City discusses the regulation of the reliability of charging services, and states:

"The City also believes that the Commission or Province should offer guidance, and potentially regulation, on the reliability of EV charging stations so users of the infrastructure, and potential future users, have confidence in its ability to provide the level of service people have come to expect with gasoline and diesel fueling. As with other new and emerging technologies, a bad experience with the reliability of charging infrastructure can be a deterrent to peoples' willingness to adopt EVs."

- 3.1 Please describe in additional detail the guidance or regulation that the Province should provide relative to charging station reliability.

COV Response to IR 3.1: Public confidence in charging infrastructure is a necessary component of the transition to electric vehicles: if early adopters of EVs are able to report to their social circles that EV infrastructure can be relied upon to support their mobility needs, then uptake is supported; if those same early adopters relay that infrastructure is unreliable, uptake may be stifled. The University of California Davis has described this as a "contagion model".

In a mature and competitive market or industry, reliability is usually favoured by market forces (i.e. products that are more reliable are usually favoured by consumers more than products that are unreliable). When a product or technology is new to the market, especially in the context of EV charging stations where not all categories of charging stations operate in a competitive context, it may be helpful to provide guidance on the reliability of charging stations.

Public charging stations are well suited to competition if existing regulatory barriers to non-utility participants are removed. However, prior to a fully competitive market emerging, guidance from the Province or BCUC could support early market participants to become more reliable – both in terms of individual charging locations and the collective network.

Reliability will be impacted by the rate that EV charging station operators are able to charge, and the business model such operators are able to employ in providing such a service. The rate and business model will directly influence factors relating to reliability such as the demand for charging stations, the willingness of charging station suppliers, owners and operators to invest in more stations and to make them more accessible, how well-maintained charging stations will be and how quickly station technology will evolve and improve. Competition will also incentivize infrastructure providers to ensure high uptimes, reliable power output, simple and pleasant user experiences, and secure data management.

As such, our perspectives favour as little regulation as possible for pricing and business models to give potential investors maximum flexibility in finding business models to provide reliable EV charging services.

One area that may not be addressed adequately by competition is interoperability, since incumbent providers have little incentive to support their customers in trying new providers. As such, the Commission or the Province should explore the potential for additional guidance or regulation for interoperability, beyond the guidance described herein for other reliability indicators.

In considering these factors, California's Senate Bill 454, Electric Vehicle Charging Stations Open Access Act, may provide guidance to the Province or BCUC.

- 3.2 Please describe in additional detail the guidance or regulation that the Commission should provide relative to charging station reliability.

COV Response to IR 3.2: *The considerations discussed in our response to IR 3.1 apply here.*

- 3.3 Please list any COV-administered bylaws relating to charging station reliability.

COV Response to IR 3.3: *As mentioned in our response to IR 3.1, EV charging stations need to be both safe and reliable. While at present there are no COV by-laws that directly regulate charging station reliability, the COV's Electrical By-law No. 5563 regulates the safety, installation, operation and maintenance of electrical equipment in the City of Vancouver – including EV charging stations. This By-law incorporates the Canadian Electrical Code, Part 1, 23rd Edition, Safety Standard for Electrical Installations.*