

To: Todd Brunner, MRM – Community Energy Specialist
From: Draydan Power, P.Eng. – Manager, EV Infrastructure & Investment
Date: January 13th, 2022

Subject: City of Kelowna EV Readiness Proposal Letter of Support

The City of Kelowna has requested comment from FortisBC (the Company) regarding the adoption of electric vehicles (EV) and the associated electric system impact. FortisBC will always meet the electricity needs of the province and is committed to supporting the installation of EV chargers at all levels: residential, commercial, workplace, fleet, and public fast charging. Increasing the availability of charging infrastructure is an important component of encouraging the adoption of EVs. FortisBC does not believe that mandating EV ready developments will overwhelm our existing infrastructure provided there is good coordination between FortisBC, the City of Kelowna, and the building industry.

The Company has a Long Term Electric Resource Plan that anticipates the increasing EV charging load on the electric system. FortisBC is prepared to invest in the necessary upgrades as they are required. Distribution-level upgrades are typical when connecting new loads and our existing policies are in place to ensure developers are billed fairly for any required upgrades. Larger substation and transmission level upgrades would be identified well in advance of their need as system load growth is continually monitored through forecasting and modelling tools, which include the evolving EV adoption rates.

To further help mitigate system impacts at the residential level, the Company will be piloting an incentive program for customers who are willing to charge their EV at times when overall system load is lower. The expectation of this program will be to mitigate peak demand, meaning less impact on the existing utility infrastructure. For Multi-Unit Residential Buildings, FortisBC recommends using an EV Energy Management System (EVEMS) that will allow for simultaneous charging of multiple EVs while maintaining a predetermined energy demand, allowing FortisBC to accurately model the load in the system and reducing the required electrical infrastructure within the development.

New technologies are also emerging as EV adoption increases such as battery storage systems that allow a battery to draw and store power from the electrical system off peak, such as the middle of the night. The battery storage would then distribute the energy to an EV charger at a normal output during a typical system peak without overloading the distribution system.

FortisBC will continue to adapt to the changing landscape of transportation electrification and is eager to meet with the City of Kelowna if there are further questions or concerns on this topic.

Thank you,

Draydan Power, P.Eng.