



CORPORATION OF THE TOWNSHIP OF ESQUIMALT

Municipal Hall
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Esquimalt, B.C. V9A 3P1

Legislation Text

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REQUEST FOR DECISION

DATE: January 21, 2021 Report No. DEV-21-007
TO: Laurie Hurst, Chief Administrative Officer
FROM: Tricia deMacedo, Policy Planner and Bill Brown, Director of Development Services

SUBJECT:

Parking Bylaw Amendment - Electric Vehicle (EV) Ready New Construction

RECOMMENDATION:

That Council resolves that Parking Bylaw, 1992, No 2011, Amendment Bylaw No. 3014, 2021, attached as Appendix A to Staff Report No. DEV-21-007, which would introduce requirements for parking stalls in new residential construction to have a minimum number of energized electric vehicle outlets, be given 1st, 2nd and 3rd readings.

RELEVANT POLICY:

Climate Emergency Declaration 2019
Climate Action Charter
Official Community Plan
Parking Bylaw, 1992, No. 2011

STRATEGIC RELEVANCE:

Healthy, Livable and Diverse Community - Develop and implement strategies that reduce impact on the environment consistent with our Climate Action Charter goals

BACKGROUND:

Supporting electrification of vehicles is a key climate action at both the federal and provincial levels of government. Esquimalt's Climate Emergency Response Report includes a recommendation to require 100% electrification of new parking stalls in residential developments in order to support EV ownership. At their regular meeting of Council on September 28, 2020, Council directed staff to "prepare the necessary amendments to the Parking Bylaw, 1992, No.2011 to require electric vehicle (EV) ready construction in all new residential buildings to come into force by July 1, 2021." Staff have prepared an amendment to the parking bylaw (Appendix "A"), that would bring this requirement into effect for all building permit applications for residential construction after July 1, 2021.

The Advisory Planning Commission reviewed the regulatory details in the amending bylaw at their

regular meeting on January 19, 2021 and members approved the following motion at that time:

That the Advisory Planning Commission recommend to Council to approve the EV-ready new residential construction regulations as proposed with consideration that a further comprehensive Parking Bylaw review be conducted.

ISSUES:

EV-Ready is defined as “a parking stall that is provided with conduit and an energized outlet capable of providing power to an electric vehicle charging station” (Capital Region Local Government EV and E-bike Infrastructure Backgrounder, Watt Consulting, 2018). EV-Ready requirements have been introduced in many lower mainland municipalities and more recently in Victoria, Saanich, Central Saanich and View Royal here in the CRD. All these municipalities have chosen to implement the best management practice of requiring 100% electrification of residential stalls.

The table below indicates the number of energized outlets that the Township would require in all new residential construction via this amending bylaw. It should be noted that this does not include any requirement to install the charging unit itself, just the energized outlet. Existing buildings would not be required to upgrade. The bylaw amendments are scheduled to take effect for any new building permit applications after July 1, 2021.

Use, Building or Structure	Required Parking Spaces	Minimum Number of Energized Electric Vehicle Outlets
Single Family Dwelling	1 space per dwelling unit	1 per required parking space
Single Family Bed and Breakfast	3 spaces per dwelling unit	1 Energized Electric Vehicle Outlet.
Two Family Dwellings	1 space per dwelling unit	1 per required parking space
Townhouse and Low Density Apartment zones	2 spaces per dwelling unit	1 per required parking space
Medium and High Density Apartment zones	1.3 spaces per dwelling unit	1 per required parking space
Senior Citizens Apartment	0.5 spaces per dwelling unit	1 per required parking space
Liveaboards and Floating Homes	1 space per dwelling unit	1 per required parking space

Some of the other requirements in the amending bylaw are as follows:

- All Energized Electric Vehicle outlets must be able to support, at a minimum, a Level 2 electric charging level. Level 2 chargers are those chargers which use a connection to a 240 V outlet,

like dryer and oven outlets. It takes around 8-12 hours to fully charge an EV battery from 'empty'. They are the most common charger used in homes and commercial areas.

- Energized Electric Vehicle Outlets must be labelled for electric vehicle charging only.
- Energized Electric Vehicle Outlet should be assigned to an individual vehicle parking stall and be located no further than 1.0 m from that stall.

In addition, the bylaw includes a performance management standard for load sharing to enable all vehicles sharing a circuit to charge in a reasonable length of time (Schedule A of Bylaw 3014). This performance management standard was prepared by an electrical engineering consultancy for the CRD and it is the standard being used in most other municipal EV ready bylaws.

1. Rationale for Selected Option

Lack of residential charging capacity is a barrier to adoption of electric vehicles, especially in multi-family buildings. Adopting EV-ready building requirements for new buildings is a straightforward bylaw update that parallels those in the Township's neighbouring municipalities and creates a consistent set of regulations for developers to follow. Requiring capacity for sufficient charging infrastructure in new buildings will "future-proof" those buildings and ensure future EV owners will be able to charge their vehicles at home. Ensuring adequate capacity now is significantly cheaper than retrofitting parking stalls and garages later.

2. Organizational Implications

Staff have advised the Victoria Chapter of the Urban Development Institute of this initiative and invited their feedback. Development Services will work with Community Safety Services to determine the most effective way to ensure that the requirements have been met post construction and have this system in place prior to July 1, 2021.

3. Financial Implications

There are no financial implications to the municipality for establishing this change in policy. Installation costs to the developer have been estimated in a report procured by the City of Richmond, to range from \$561 per stall to \$2610 per stall, equipped with Level 2 energized infrastructure. These costs are significantly cheaper than the cost to install the infrastructure after construction is completed. The use of energy management systems ('load sharing') has been found to significantly reduce the cost of installing chargers by reducing the amount of electrical capacity required overall.

Retrofit costs were found to average \$6800 per charging unit in a multi-unit building. Costs for single family retrofit would be much cheaper if the electrical capacity was adequate.

4. Sustainability & Environmental Implications

The Climate Emergency Response Report contains details on the environmental and climate implications of each action including the potential GHG reductions. The GHG reduction due to EV-ready new construction was estimated to be 2 to 4 percent of the community emissions by 2030 or approximately 2200-4400 tonnes of CO₂e.

5. Communication & Engagement

Public engagement is a critical piece of all climate action initiatives. Updating the Township website and via social media with information on any of these actions can be done as part of

regular business. Additional notice regarding amendments to the Parking Bylaw will occur as a courtesy to developers.

ALTERNATIVES:

1. That Council resolves that Parking Bylaw, 1992, No 2011, Amendment Bylaw No. 3014, attached as Appendix A to Staff Report DEV-21-007, which would introduce requirements for parking stalls in new residential construction to have a minimum number of energized electric vehicle outlets, be given First, Second and Third Readings.
2. That Council amend Parking Bylaw, 1992, No 2011, Amendment Bylaw No. 3014 and further give 1st, 2nd and 3rd readings as amended.