

# Electric Vehicle (EV) Ready Requirements in New Construction



1

## Purpose

- Present a recommended approach for EV charging infrastructure requirements for new residential, commercial, industrial and institutional developments.
- Consider potential impacts on affordability.
- Bring forward zoning bylaw amendments for Council's consideration.



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2

# Climate Leadership

- 80% GHG reduction by 2050 target
- 100% Renewable Energy targets

## 2017 GHG EMISSIONS BY SECTOR (369,609 tCO<sub>2</sub>e<sup>1</sup>)

32% COMMERCIAL, INSTITUTIONAL, INDUSTRIAL, AND MULTI-UNIT RESIDENTIAL

19% SINGLE FAMILY HOMES

9% SOLID AND LIQUID WASTE

40% ON-ROAD TRANSPORTATION

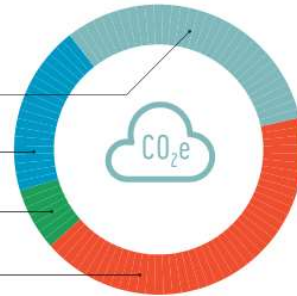


Figure 1: City of Victoria GPC Compliant Inventory, 2017



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3

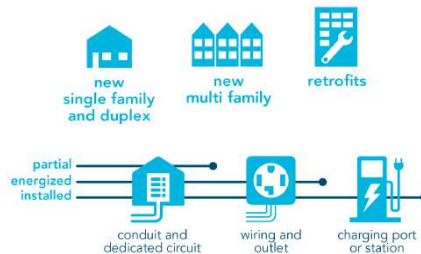
RW1

# Local Government Role in EV Adoption

Demonstrating leadership at local government locations like City Hall.



Ensuring adequate EV charging at work and at home.



Ensuring publicly accessible charging on the go.



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4

## Slide 4

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**RW1**

[@Andrea Hudson] we were not sure whether to include this slide or not. I am ok if it gets removed.

Robyn Webb, 6/16/2020

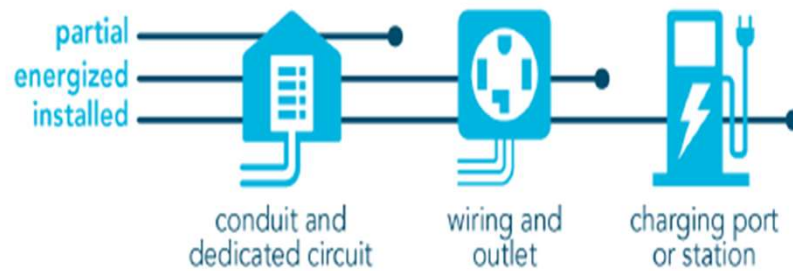
## Residential Standard

Use or Class of Use	Minimum Number of Energized Electric Vehicle Outlets
Single Family Dwelling	1 per required vehicle parking space
Two Family Dwelling	1 per required vehicle parking space
Semi-Attached Dwelling	1 per required vehicle parking space
Secondary Suite or Garden Suite	N/A
All other residential uses not specifically identified in this table	1 per vehicle parking space



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5



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6

## Institutional, Commercial and Industrial Standard

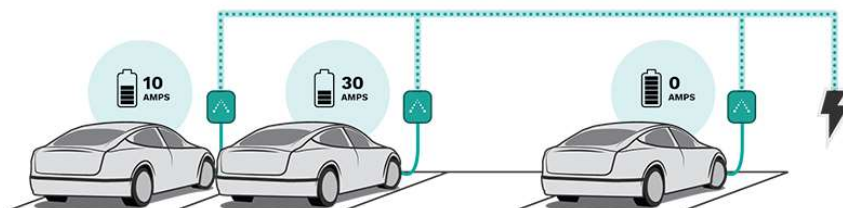
Number of Vehicle Parking Spaces Provided	Minimum Number of Energized Electric Vehicle Outlets
<10	N/A
10-14	1
>15	2 energized electric vehicle outlets or 5% of the total number of required vehicle parking spaces, whichever is greater



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7

## Institutional, Commercial and Industrial Standard



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8

## Financial Considerations

- Installing charging infrastructure at time of construction more cost effective than retrofitting buildings at a later date.
- Provincial rebates currently available for new and existing buildings.
- City's top up only for existing multi-unit residential buildings.



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9

## Affordability Considerations

- Impacts of zoning changes on housing affordability was considered.
- Current zoning bylaw requirements for off-street parking considerably less for affordable housing developments.
- Wiring affordable housing buildings in the present insulates against costly retrofits in future (life of a building can span over 100 years).
- Reduces demand on subsidies and grants in a future where EVs will be the only engine type available for purchase as of 2040.



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10

## Recommendations

That Council:

1. Direct staff to forward Zoning Amendment Bylaw Nos. 20-001 and 20-075 to require that Electric Vehicle (EV) readiness be provided for all new residential development and five percent of new institutional, commercial and industrial development to the July 9<sup>th</sup> Council meeting for introductory readings.
2. Direct staff to monitor EV demand and the use of charging infrastructure in institutional, commercial and industrial land uses and bring forward recommended amendments to the requirement levels as deemed necessary.



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