#### **Changes Key**

New text: underlined

Removed text: stricken

Changes this document is suggesting: Blue text

Changes the BFRW committee already reviewed and supported: Red text

### Chapter 202

AUTOMATIC LOAD MANAGEMENT SYSTEM (ALMS). A system designed to manage the electrical load across one or more <u>EVSE spaces-charging stations and EV Rready parking spaces</u>.

**ELECTRIC VEHICLE (EV) CAPABLE PARKING-SPACE.** A parking space <u>that is</u> provided with <u>raceways a conduit, electrical panel and load capacity</u> to support future installation of *EVSE* charging equipment.

ELECTRIC VEHICLE (EV) CHARGER. Off-board charging equipment used to charge electric vehicles.

ELECTRIC VEHICLE <u>SUPPLY EQUIPMENT</u> (EVSE) SPACE CHARGING STATION. EV Ready A parking space <u>that is provided</u> with installed *EVSE*-charger.

**ELECTRIC VEHICLE (EV) READY PARKING-SPACE.** A parking space <u>that is</u> provided with a <u>branch</u> <u>circuit and a</u> receptacle outlet <u>allowing charging of electric vehicles that will support the future</u> <u>installation of *EVSE*.</u>

**ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE).** The conductors Equipment for plug-in charging, including the ungrounded, grounded, and equipment grounding conductors, and the electric vehicle connectors, attachment plugs, personnel protection system, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

### Section 429—Electric vehicle charging infrastructure.

**429.1 General.** The provisions of this section shall apply to the construction of new buildings and accessory structures, including parking lots and parking garages.

*Electric vehicle supply equipment (EVSE)* shall be installed in accordance with applicable requirements of chapter <u>19.28</u> RCW and the National Electrical Code, Article 625.

EXCEPTION: Electric vehicle charging infrastructure is not required if any of the following conditions are met:

- 1. There is no public utility or commercial power supply.
- 2. Dwelling units without garages or other on-site parking.

3. Where the local electric distribution entity certifies in writing that is not able to provide 100 percent of the necessary distribution capacity for the required number of electrical vehicle supply equipment (EVSE) spaces and electric vehicle (EV) ready spaces within 2 years after the estimated certificate of occupancy date, the required number EVSE spaces and EV ready spaces shall be converted to electric vehicle (EV) capable spaces based on the available existing electric distribution capacity.

**429.2 Electric vehicle (EV) charging infrastructure.** Buildings and accessory structures shall be provided with *EVSE spaces*-charging stations, *EV*-**R**ready parking spaces, and *EV*-capable parking spaces in accordance with Table 429.2. Calculations shall be rounded up to the nearest whole number. Where one shared parking facility serves multiple building occupancies, parking spaces that are designated separately for each occupancy shall comply with the requirements for that occupancy. Parking spaces that are shared between occupancies shall comply with which occupancy has the greater requirement or the required number of *EVSE spaces, EV ready spaces*, and *EV capable spaces* shall be determined proportionally based on the floor area of each building occupancy. Where a building contains more than one occupancy, the electric vehicle charging infrastructure percentages of Table 429.2 shall be applied to the number of spaces required for each occupancy.

EXCEPTIONS: 1. Except for Group A, Group E, and Group M occupancies, on-site parking with less than 10 parking spaces shall not be required to comply with Section 429.2.

2. Group A, Group E, and Group M occupancies shall comply with one of the following, whichever is greater:

2.1. The provisions of Section 429.2 shall apply only to designated employee parking spaces.

2.2. One of each 200 parking spaces or fraction thereof shall be an *EV R<sub>r</sub>eady space*. One of each 200 parking spaces or fraction thereof shall be an *EVSE space* Charging Station.

3. Installed *EVSE spaces* that exceed the minimum requirements of this section may be used to meet the minimum requirements for *EV ready spaces* and *EV capable spaces*.

4. Installed *EV* ready spaces that exceed the minimum requirements of this section may be used to meet the minimum requirements for *EV* capable spaces.

## Table 429.2

# **Electric Vehicle Charging Infrastructure**

Оссирапсу	Number of EV <u>SE</u>	Number of EV <del>-</del> Ready	Number of EV <del>-</del> Capable
	<u>Spaces</u>	Parking Spaces	Parking Spaces

**Commented [PH1]:** Trying to make it clear that required EVSE spaces and EV ready spaces can be converted to EV capable spaces.

**Commented [PH2]:** Changing these to be abbreviated definition references to accommodate the inserted language in exception 3 for 429.1 above.

**Commented [PH3]:** There was discussion about this section at the last committee meeting. I would caution against changing this provision this cycle. If a building has 5 parking spaces they would have to put in 1 EVSE, 1 EV ready, and 2 EV capable or effectively 80% of the parking spaces.

This exception provides relief for small businesses from having to face burdensome costs for increasing transformer sizes and other costs to meet the requirements of this section.

This could be looked at for greater improvement in the 2027 cycle.

**Commented [PH4]:** Removed the proposed exception for R-2 buildings to calculate based on dwelling unit instead of parking spaces.

	Charging Stations				
Group A, B, E, F, H, I, M, and S occupancies	10% of total parking spaces	10% of total parking spaces	10% of total parking spaces		
Group R occupancies					
Buildings that do not contain more than two dwelling units	Not required	One for each dwelling unit	Not required		
Dwelling units with private garages	Not required	One for each dwelling unit	Not required		
All other Group R occupancies	10% of total parking spaces	<u>10%25%</u> of total parking spaces	40%10% of total parking spaces		

**429.2.1 EV<u>SE</u> charging stations spaces</u> and EV-Rready parking spaces.** A minimum of 40ampere dedicated 208/240-volt branch circuit shall be installed for each *EV* <u>Rready parking space</u> and each <u>EVSE space</u> <u>Charging Station</u>. The branch circuits shall terminate at a receptacle outlet or <u>EVSE</u> <u>charger</u> in close proximity to the proposed location of the <u>EV Rready parking space</u> or the <u>EVSE space</u> <u>Charging Station</u>.

**429.2.2 EV\_-C\_apable parking spaces.** A listed raceway capable of accommodating a minimum of 40-ampere dedicated 208/240-volt branch circuit shall be installed for each EV-Capable parking space. A continuous raceway shall be installed between an enclosure, end cap, or outlet located within close proximity of the *EV capable space* and future or existing panelboard or switchboard location(s). The raceway shall terminate into a cabinet, box or other enclosure in close proximity to the proposed location of the EV-Capable parking space. Raceways and related components that are planned to be installed underground, and in enclosed, inaccessible or concealed areas and spaces, shall be installed at the time of original construction.

**429.3 Electrical room(s) and equipment.** Electrical room(s) and/or areas for dedicated electrical equipment shall be sized to accommodate the requirements of Section 429.2.1 through 429.2.2.

The electrical service and the electrical system, including any on-site distribution transformer(s), shall have sufficient capacity to simultaneously charge all EVs at all required *EVSE spaces* Charging Stations, and *EV Rready parking spaces*, and EV-Capable parking spaces at a minimum of 40-amperes each.

EXCEPTION: Automatic Load Management System (ALMS) may be used to adjust the maximum electrical capacity required for the <u>EVSE spaces and EV-Rready and EV-Capable parking</u>-spaces. The ALMS must be designed to allocate charging capacity among multiple <u>current or future EVSE</u> Charging Stations at a minimum of 16 amperes per <u>EVSE</u> charging connector charger.

**429.4 Electric vehicle charging infrastructure for accessible parking spaces.** Ten percent of the accessible parking spaces, rounded to the next whole number, shall be *EVSE spaces*. Charging

Stations. An aAdditional 10 percent of the accessible parking spaces, rounded to the next whole number, shall be *EV Rready spaces*. Not fewer than one for each type of *EVSE* charging system shall be accessible.

The electric vehicle charging infrastructure may also serve adjacent parking spaces not designated as accessible parking. A maximum of 10 percent of the accessible parking spaces, rounded to the next whole number, are allowed to be included in the total number of electric vehicle parking spacescharging infrastructure required under Section 429.2.

**Commented [PH5]:** EVSE makes more technical sense than EV charging system.