



STATE OF WASHINGTON
STATE BUILDING CODE COUNCIL

1. State Building Code to be Amended:

- | | |
|---|---|
| <input checked="" type="checkbox"/> International Building Code | <input type="checkbox"/> International Mechanical Code |
| <input type="checkbox"/> ICC ANSI A117.1 Accessibility Code | <input type="checkbox"/> International Fuel Gas Code |
| <input type="checkbox"/> International Existing Building Code | <input type="checkbox"/> NFPA 54 National Fuel Gas Code |
| <input type="checkbox"/> International Residential Code | <input type="checkbox"/> NFPA 58 Liquefied Petroleum Gas Code |
| <input type="checkbox"/> International Fire Code | <input type="checkbox"/> Wildland Urban Interface Code |
| <input type="checkbox"/> Uniform Plumbing Code | |

For the Washington State Energy Code, please see specialized [energy code forms](#)

Section(s): 427

Title: Electric vehicle charging infrastructure.

2. Proponent Name:

Proponent: ETSHB 1257

Title: AN ACT Relating to energy efficiency

Date: EFFECTIVE DATE: July 28, 2019

3. Designated Contact Person:

Name: Richard Brown

Title: SBCC Managing Director

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4. Proposed Code Amendment.

Code(s) 2018 IBC Section(s) 427

Amend section to read as follows:

Section 427—Electric vehicle charging infrastructure.

427.1 Scope. The provisions of this section shall apply to the construction of new buildings ~~Group B, Group R-1 hotel and motel only, and Group R-2 occupancies.~~ serving Group B, Group R-1 hotel and motel only, and Group R-2 occupancies.

427.2 Required electric vehicle charging infrastructure. Where parking is provided, the greater of one parking space or ten percent of parking spaces shall be provided with electric vehicle charging infrastructure in compliance with Sections 427.3, 427.4 and 427.5. When the calculation of percent served results in a fractional parking space, the applicant shall round up to the next whole number.

EXCEPTIONS: 1. For occupancies classified as assembly, education, or mercantile, the requirements of this section apply only to employee parking spaces. ~~Group R and Group B occupancies served by less than 20 on-site parking spaces.~~

 2. The requirements of this section 427 do not apply to occupancies classified as residential R-3, utility, or miscellaneous.

427.3 Electrical room(s). Electrical room(s) serving buildings with on-site parking areas must be sized ~~shall be designed~~ to accommodate the potential for electrical equipment and distribution required to serve a minimum of 20 percent of the total parking spaces with 208/240 V 40-amp or equivalent electric vehicle charging infrastructure.

427.4 Electric vehicle charging infrastructure. Electric vehicle charging infrastructure shall be installed meeting one of the following requirements:

1. A minimum number of 208/240 V 40-amp or equivalent electric vehicle charging stations required to serve the parking spaces specified in section 427.2. The electric vehicle charging stations shall be located to serve spaces designated for parking and charging electric vehicles,
2. ~~Additional service capacity, space for future meters, panel capacity or space for additional panels, and raceways for future installation of electric vehicle charging stations. The service capacity and raceway size shall be designed to accommodate the future installation of the number of 208/240 V 40-amp, electric vehicle charging stations specified in section 427.2. The raceway shall terminate at spaces designated for parking and charging electric vehicles in the future.~~

Where designated electric vehicle charging locations serve exterior on-grade parking spaces that are located more than 4 feet from a building, raceways shall be extended below grade to a pull box in the vicinity of the designated future electric vehicle charging locations or stub above grade in the vicinity of the designated future electric vehicle charging locations, protected from vehicles by a curb or other device.

EXCEPTION: In lieu of surface-mounted raceway between the electrical panel and the designated electric vehicle charging locations, it is permitted to provide permanent markings indicating the pathway for future raceway, and one-inch diameter capped sleeves through each wall and floor assembly that are penetrated along that route. This pathway and the locations of capped sleeves shall also be indicated on the electrical plans. Raceway shall be installed for any portion of the pathway located below slabs, below grade, or within floor, wall or roof assemblies.

Load management infrastructure may be used to adjust the size and capacity of the required building electric service equipment and circuits on the customer facilities, as well as electric utility owned infrastructure, as allowed by applicable local and national electrical code.

427.5 Electric vehicle charging infrastructure for accessible parking spaces. When electric vehicle charging infrastructure is required, the greater of one parking space or ten percent of accessible parking space, rounded to the next whole number, must ~~shall be provided with~~ ~~served by~~ electric vehicle charging infrastructure. The electric vehicle charging infrastructure may also serve adjacent parking spaces not designated as accessible parking.

5. **Briefly explain your proposed amendment, including the purpose, benefits and problems addressed.** Specifically note any impacts or benefits to business, and specify construction types, industries and services that would be affected. Finally, please note any potential impact on enforcement such as special reporting requirements or additional inspections required.

This code change proposal is in response to E3SHB 1257 effective July 28, 2019. The bill mandates the proposed changes to the IBC regarding electrical vehicle charging stations. The changes expand the number of required electrical vehicle charging stations from 5 percent to 10 percent of the provided parking stalls and expands the application from B and R Groups 1 and 2 to all new buildings except R-3, utility, and miscellaneous.

6. Specify what criteria this proposal meets. You may select more than one.

- The amendment is needed to address a critical life/safety need.
- The amendment clarifies the intent or application of the code.
- The amendment is needed to address a specific state policy or statute.
- The amendment is needed for consistency with state or federal regulations.
- The amendment is needed to address a unique character of the state.
- The amendment corrects errors and omissions.

7. Is there an economic impact: Yes No

Explain:

E3SHB 1257 mandates the proposed changes to the IBC regarding electrical vehicle charging stations. The changes expand the number of required electrical vehicle charging stations from 5 percent to 10 percent of the provided parking stalls and expands the application from B and R Groups 1 and 2 to all new buildings except R-3, utility, and miscellaneous.

An economic analysis is not required per RCW 34.05.328(5)(b)(v) Rules the content of which is explicitly and specifically dictated by statute, including any rules of the department of revenue adopted under the authority of RCW [82.32.762\(3\)](#);

List any code enforcement time for additional plan review or inspections that your proposal will require, in hours per permit application:

Because of the increase in facilities affected this will increase plan review and inspection time. It should be less than one hour for review and inspection per project.

Background information:

ENGROSSED THIRD SUBSTITUTE HOUSE BILL 1257

Sec. 18.

2) (a) Except as provided in (b) of this subsection, the rules adopted under this section must require electric vehicle charging capability at all new buildings that provide on-site parking. Where parking is provided, the greater of one parking space or ten percent of parking spaces, rounded to the next whole number, must be provided with wiring or raceway sized to accommodate 208/240 V 40-amp or equivalent electric vehicle charging. Electrical rooms serving buildings with on-site parking must be sized to accommodate the potential for electrical equipment and distribution required to serve a minimum of twenty percent of the total parking spaces with 208/240V 40-amp or equivalent electric vehicle charging. Load management infrastructure may be used to adjust the size and capacity of the required building electric service equipment and circuits on the customer facilities, as well as electric utility owned infrastructure, as allowed by applicable local and national electrical code. For accessible parking spaces, the greater of one parking space or ten percent of accessible parking spaces, rounded to the next whole number, must be provided with electric vehicle charging infrastructure that may also serve adjacent parking spaces not designated as accessible parking.

(b) For occupancies classified as assembly, education, or mercantile, the requirements of this section apply only to employee parking spaces. The requirements of this section do not apply to occupancies classified as residential R-3, utility, or miscellaneous.

(c) The required rules required under this subsection must be implemented by July 1, 2021.

Section 427 effective July 1, 2020 (now February 1, 2021):

Section 427—Electric vehicle charging infrastructure.

427.1 Scope. The provisions of this section shall apply to the construction of new buildings serving Group B, Group R-1 hotel and motel only, and Group R-2 occupancies.

427.2 Required electric vehicle charging infrastructure. Where parking is provided, five percent of parking spaces shall be provided with electric vehicle charging infrastructure in compliance with Sections 427.3, 427.4 and 427.5. When the calculation of percent served results in a fractional parking space, the applicant shall round up to the next whole number.

EXCEPTION: Group R and Group B occupancies served by less than 20 on-site parking spaces.

427.3 Electrical room(s). Electrical room(s) serving parking areas shall be designed to accommodate the electrical equipment and distribution required to serve a minimum of 20 percent of the total parking spaces with 208/240 V 40-amp electric vehicle charging infrastructure.

427.4 Electric vehicle charging infrastructure. Electric vehicle charging infrastructure shall be installed meeting one of the following requirements:

1. A minimum number of 208/240 V 40-amp, electric vehicle charging stations required to serve the parking spaces specified in section 427.2. The electric vehicle charging stations shall be located to serve spaces designated for parking and charging electric vehicles, or

2. Additional service capacity, space for future meters, panel capacity or space for additional panels, and raceways for future installation of electric vehicle charging stations. The service capacity and raceway size shall be designed to accommodate the future installation of the number of 208/240 V 40-amp, electric vehicle charging stations specified in section 427.2. The raceway shall terminate at spaces designated for parking and charging electric vehicles in the future.

Where designated electric vehicle charging locations serve exterior on-grade parking spaces that are located more than 4 feet from a building, raceways shall be extended below grade to a pull box in the vicinity of the designated future electric vehicle charging locations or stub above grade in the vicinity of the designated future electric vehicle charging locations, protected from vehicles by a curb or other device.

EXCEPTION: In lieu of surface-mounted raceway between the electrical panel and the designated electric vehicle charging locations, it is permitted to provide permanent markings indicating the pathway for future raceway, and one-inch diameter capped sleeves through each wall and floor assembly that are penetrated along that route. This pathway and the locations of capped sleeves shall also be indicated on the electrical plans. Raceway shall be installed for any portion of the pathway located below slabs, below grade, or within floor, wall or roof assemblies.

427.5 Electric vehicle charging infrastructure for accessible parking spaces. When electric vehicle charging infrastructure is required, one accessible parking space shall be served by electric vehicle charging infrastructure. The electric vehicle charging infrastructure may also serve adjacent parking spaces not designated as accessible parking.