

2024 Washington State Residential Code – EV Charging

Overview

- Goals:
 - Keep the intent of current state amendment to 2021 IRC.
 - Apply the intent of the new model code language from 2024 IRC.
 - Include definitions and other editorial changes to improve and clarify the code.
- Updating section numbering to match 2024 IRC.

Proposed 2024 Washington State Amendment to 2024 IBC (for reference):

[IBC EV Sections_BFRW_R4.pdf](#)

2024 IRC	2024 IBC	2021 WSRC	Option 1	Option 2
			<p>Section R202 Definitions ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles and electric motorcycles, primarily powered by an electric motor that draws current from a building electrical service, electric vehicle supply equipment (EVSE), a rechargeable storage battery, a fuel cell, a photovoltaic array, or another source of electric current</p> <p>ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). Equipment for plug-in power transfer, including the ungrounded, grounded, and</p>	

Commented [PH1]: Aligning with 2024 IBC Amendment, based on 2024 IECC Appendix RE (Electric Vehicle Charging Infrastructure).

Commented [PH2R1]: [IBC EV Sections_BFRW_R4.pdf](#)

2024 IRC	2024 IBC	2021 WSRC	Option 1	Option 2
			equipment grounding conductors; electric vehicle connectors; attachment plugs; any personal 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.	
<p>R317.6 Electric vehicle charging systems. Where provided, electric vehicle charging systems shall be installed in accordance with NFPA 70. Electric vehicle charging system equipment shall be <i>listed and labeled</i> in accordance with UL 2202. <i>Electric vehicle supply equipment</i> shall be listed and labeled in accordance with UL 2594.</p>	<p>406.2.7 Electric vehicle charging stations and systems. Where provided, electric vehicle charging systems shall be installed in accordance with NFPA 70. Electric vehicle charging system equipment shall be listed and labeled in accordance with UL 2202. Electric vehicle supply equipment shall be <i>listed and labeled</i> in accordance with UL 2594. Accessibility to <i>electric vehicle</i></p>	<p>309.6 Electric vehicle charging.</p>	<p>R317.6 Electric vehicle charging infrastructure systems.</p>	<p>R317.6 Electric vehicle charging infrastructure systems. Where provided; <i>Electric vehicle supply equipment (EVSE) charging systems</i> shall be installed in accordance with <u>applicable requirements of chapter 19.28 RCW and NFPA 70.</u> Electric vehicle charging system equipment shall be listed and labeled in accordance with UL 2202. Electric vehicle supply</p>

Commented [PH4]: Based on the hearings I watched for the IRC proposal the intent was to match the IBC and code language. I think this amendment would better fit our state without varying too far from the model code.

Commented [PH3]: This is italicized in the ICC, but there is no corresponding definition in 202. This is a commonly defined term in other EV charging codes.

Commented [PH5]: RCW 19.28 should be referenced with dealing with electrical requirements in WA.

Commented [PH6]: I've noticed our state amendments are inconsistent on how to refer to the electrical code sometimes citing the LNI WAC, sometimes the National Electric Code, other times NFPA 70. Sticking with model code, but I think this is a potential area for cleanup across all the codes.

2024 IRC	2024 IBC	2021 WSRC	Option 1	Option 2
	<p><i>charging stations</i> shall be provided in accordance with Section 1107.</p>			<p>equipmentEVSE shall be listed and labeled in accordance with UL 2594 orUL 2202.</p>
		<p>R309.6.1 Application. The provisions of this section shall apply to the construction of new <i>dwelling units</i> per Section R101.2 with attached private garages or attached private carports.</p> <p>Exception: Where there is no public utility or commercial power supply.</p>	<p>R317.6.1 Application. The provisions of this section shall apply to the construction of new <i>dwelling units</i> per Section R101.2 with attached private garages or attached private carports.</p> <p>Exceptions:</p> <ol style="list-style-type: none"> 1. Where there is no public utility or commercial power supply. 2. <u>Existing dwelling units</u>, where provided, <u>electric vehicle supply equipment (EVSE)</u> 	<p>R317.6.1 Application. The provisions of this section, <u>and R317.6.2</u>, shall apply to the construction of new <i>dwelling units</i> per Section R101.2 with attached private garages or attached private carports.</p> <p>Exception: Where there is no public utility or commercial power supply.</p>

- Commented [PH7]:** [UL 2594 | UL Standards & Engagement | UL Standard](#)
- Commented [PH8R7]:** This is broadly for all EVSE.
- Commented [PH9]:** [UL 2202 | UL Standards & Engagement | UL Standard](#)
- Commented [PH10R9]:** This specifically deals with DC Charging Equipment for EVs, which is a type of EVSE.

2024 IRC	2024 IBC	2021 WSRC	Option 1	Option 2
			<p>charging systems shall be installed in accordance with applicable requirements of chapter 19.28 RCW and NFPA 70.</p> <p>Electric vehicle charging system equipment shall be listed and labeled in accordance with UL-2202. Electric vehicle supply equipment EVSE shall be listed and labeled in accordance with UL 2594 or UL 2202.</p>	
		<p>R309.6.2 Dedicated circuit for electric vehicle charging. A minimum of one 40-ampere dedicated</p>	<p>R317.6.2 Dedicated circuit for electric vehicle charging. A minimum of one 40-ampere dedicated</p>	<p>R317.6.2 Dedicated circuit for electric vehicle charging.</p>

Commented [PH11]: 2024 IRC language amended.

2024 IRC	2024 IBC	2021 WSRC	Option 1	Option 2
		<p>208/240-volt branch circuit shall be installed in the electrical panel for each dwelling unit.</p> <p>The branch circuit shall terminate at a junction box, receptacle outlet, or electric vehicle charging equipment.</p>	<p>208/240-volt branch circuit shall be installed in the electrical panel for each <i>dwelling unit</i>.</p> <p>The branch circuit shall terminate at a junction box, receptacle outlet, or EVSE electric vehicle charging equipment.</p>	<p>A minimum of one 40-ampere dedicated 208/240-volt branch circuit shall be installed in the electrical panel for each <i>dwelling unit</i>.</p> <p>The branch circuit shall terminate at a junction box, receptacle outlet, or EVSE electric vehicle charging equipment.</p>