U.S. DOE Zero Energy Ready Home Multifamily EV-Ready Checklist Version 2

These Electric Vehicle Ready provisions of the DOE Zero Energy Ready Home program shall be met by any building eligible for certification under the Multifamily National Program Requirements Version 2 and the Multifamily California Program Requirements Version 2, unless one or more of the exceptions noted below applies. If one or more exceptions apply, a project may be certified under the DOE Zero Energy Ready Home program if all other applicable program requirements are met.

Exceptions:

A. Where the local electric distribution entity has certified in writing that it is not able to provide 100% of the necessary distribution capacity that would be needed according to this checklist (assuming that all of the required EVSE, EV Ready, and EV Capable spaces are eventually energized) within 2 years after the estimated date of the certificate of occupancy, the required EV charging infrastructure shall be reduced based on the available existing electric distribution capacity. The Rater must include the utility's written explanation in the project records.

B. Where meeting the capacity requirements associated with eventually energizing all of the EVSE, EV Ready, and EV Capable spaces required by this checklist will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the builder or developer by more than $450 per dwelling unit, the required EV charging infrastructure shall be reduced based on the available existing electric distribution capacity. The Rater must include documentation from the utility regarding added costs in the project records.

If either exception applies, check the first row in the checklist below. Confirming that an exception applies, providing the utility's written explanation or documentation, and recording the percentage of spaces provides acceptable documentation that the EV Ready Checklist has been completed.

Note that all electrical infrastructure shall be in accordance with NFPA 70.

***** Denotes a requirement that must be field verified. All other requirements (i.e., those without an asterisk) may be verified based on construction documents ***or*** field verification.

These requirements were adapted from the draft provisions for the 2024 Residential and Commercial IECC.

U.S. DOE Zero Energy Ready Home Program Multifamily EV-Ready Checklist Version 2[1]			
Item #	**Requirement**	**Rater Verified[2]**	**Verified by Builder or Licensed Professional[3]**
	Exception A or B applies, and required documentation is retained by the rater. Because both Exception A and B require that EV charging infrastructure is installed based on the available existing electric distribution capacity, document the percentage of total automobile parking spaces which are EV Capable, EV Ready, or EVSE spaces. If this box is checked, the remaining items on this list are not required and the rater may mark the EV-Ready checklist as complete on the Rater Checklist.	☐ ____%	
1*	Allocated parking for dwelling units[4] in multifamily or mixed-use buildings shall be provided with an EV Capable space [5], EV Ready space[6], or EVSE space[7] for 20% of units or automobile parking spaces, whichever is less. For parking that is shared by multiple buildings, see endnote.[8] To meet this 20% threshold, the following minimum types of spaces are provided: • 10% of the total (based on units or automobile parking spaces) must be EVSE spaces. • The remaining 10% of the total may be any combination of EVSE, EV Capable, or EV Ready spaces. The number of required compliant spaces shall be rounded up to the nearest whole number. Townhouses certifying under the ZERH Multifamily V2 program must meet alternative EV Ready requirements. [9] *Advisory*: DOE intends to raise the percentages of EVSE, EV Ready, and EV Capable spaces in a future program update.	☐	
2. All **EV Capable** spaces comply with the following:			
2a*	A continuous raceway or cable assembly is installed between an enclosure or outlet located within 3 feet of the EV Capable space and electrical distribution equipment. The following exceptions to the 3 feet requirement apply: • Parking spots in a covered garage are deemed EV-Capable if the conduit terminates anywhere within the garage on that parking level. • Projects with a common area electrical room may have the conduit terminate anywhere within the electrical room.	☐	☐
2b	Installed raceway or cable assembly is sized and rated to supply a minimum circuit capacity as described Item 5 below.	☐	☐
2c	The electrical distribution equipment to which the raceway or cable assembly connects has dedicated overcurrent protection device space	☐	☐

	and electrical capacity to supply a calculated load as described in Item 5 below.		
2d*	The enclosure or outlet and the electrical distribution equipment directory is marked: "For electric vehicle supply equipment (EVSE)."	☐	
3. All **EV Ready** spaces comply with the following:			
3a*	Branch circuits serving EV Ready spaces terminate at an outlet or enclosure, located within 3 feet of each EV Ready space it serves.	☐	☐
3b	Branch circuits serving EV Ready spaces have a system and circuit capacity as described in Item 5, below.	☐	☐
3c*	The electrical distribution equipment directory designates the branch circuit as "For electric vehicle supply equipment (EVSE)"	☐	
4. Each **EVSE** installed to meet the minimum required quantity of EVSE spaces shall comply with the following. An installed EVSE with multiple output connections is permitted to serve multiple EVSE spaces and shall comply with the following:			
4a	Have a minimum system and circuit capacity as described in Item 5, below.	☐	☐
4b	Have a nameplate rating not less than 6.2 kilowatts per EVSE space served.	☐	☐
4c*	Be located within 3 feet of each EVSE space it serves.	☐	
4d	Installed EVSE equipment is listed and labeled in accordance with UL 2202 or UL 2594.	☐	
5. The system and circuit capacity of electrical infrastructure serving each EV Capable space, EV Ready space, and EVSE space shall comply with the following:			
5a	The **electrical distribution equipment supplying the branch circuit(s)** serving each EV capable space, EV ready space, and EVSE space shall comply with one of the following:		
5a.1	For spaces not controlled by an energy management system: Have a calculated load of 7.2 kVA or the nameplate rating of the equipment, whichever is larger. (Mark N/A if energy management system is in place.)	☐	☐
5a.2	For spaces controlled by an energy management system: The maximum equipment load on the electrical distribution equipment supplying the branch circuit(s) serving spaces controlled by an energy management system shall be the maximum load permitted by the energy management system, but not less than 3.3 kVA per space. (Mark N/A if energy management system is not in place.)	☐	☐
5b	The **branch circuit** serving each EV capable space, EV ready space, and EVSE space shall comply with 5b.1 or 5b.2:		

5b.1	Have a rated capacity not less than 50 amperes or the nameplate rating of the equipment, whichever is greater.	☐	☐
5b.2	Each branch circuit serving multiple EVSE spaces, EV ready spaces, or EV capable spaces controlled by an energy management system shall comply with 5b.2.1 or 5b.2.2:		
5b.2.1	Have a minimum capacity of 25 amperes per space.	☐	☐
5b.2.2	Have a minimum capacity of 20 amperes per space for residential occupancies when all automobile parking spaces are EV ready spaces or EVSE spaces.	☐	☐

Verification Signoffs		
Rater Name: _____ Rater Company Name: _____	Rater Pre-Drywall Inspection[10] Date(s): _____	Rater Initials: _____
Rater Name: _____ Rater Company Name: _____	Rater Final Inspection[11] Date(s): _____	Rater Initials: _____
Builder/Developer Employee: _____ Builder/Developer Name: _____	Builder Inspection Date(s): _____	Builder Initials: _____
Licensed Professional: _____	LP Inspection Date(s): _____	LP Initials: _____

Endnotes:

[1] These requirements do not apply to parking garages or lots where the cost of the energy use of the parking garage or lot is not the responsibility of the Builder/Developer, Building Owner or Property Manager.

[2] The Rater is defined as the person(s) completing the third-party verification required for certification. Raters must comply with the following:

- Raters are required to complete all ZERH training modules applicable to the ZERH MF V2 program specifications (according to the timeline posted on the ZERH website) prior to completing a ZERH project's first inspection. Please note that required training modules are subject to change and Raters will have an allocated time period to complete additional or updated training modules as they become available. If a Rater does not successfully complete these modules before the end of the allocated time period, they may not certify ZERH projects until the modules are complete.

- Raters must be (a) a Certified Rater, Approved Inspector, as defined by ANSI / RESNET / IECC 301, or (b) credentialed by a Home Certification Organization for the Zero Energy Ready Home program (HCO for ZERH), or (c) meet the credential requirements of a Multifamily Review Organization for the Zero Energy Ready Home program (MRO for ZERH). Learn more and find a current list of HCOs and MROs for ZERH here.

[3] At the discretion of the Rater, a licensed professional (LP) may verify those line items in this Checklist where a checkbox is in the "Licensed Professional" column. A Licensed Professional must be a Professional Engineer Registered Architect, or other industry professional (e.g., electrician) in good standing and possess a current license. When exercised, the LP's responsibility will be formally acknowledged by the LP signing off on the checklist for the item(s) that they verified. However, if a quality assurance review indicates that Items have not been successfully completed, the Rater will be responsible for facilitating corrective action.

[4] In this document, 'dwelling units' includes both dwelling units and sleeping units, unless otherwise specified.

[5] An Electric Vehicle Capable Space (EV-capable space) is defined as: "An automobile parking space provided with electrical infrastructure such as, but not limited to, raceways, cables, enclosures, electrical capacity, and electrical distribution equipment space, necessary for connection to EVSE."

[6] An Electric Vehicle Ready Space (EV-ready space) is defined as: "An automobile parking space provided with a branch circuit and either an outlet or enclosure for connection to EVSE."

[7] Electric Vehicle Supply Equipment (EVSE) is defined as: "Equipment for plug-in power transfer including the ungrounded, grounded, and equipment grounding conductors, and the electric vehicle connectors, attachment plugs, 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."

Electric Vehicle Supply Equipment Installed Space (EVSE space) is defined as: "An automobile parking space where operational EVSE has been installed."

[8] For developments where multiple buildings (and/or townhomes, when certifying under ZERH MF V2) share common parking area(s) (e.g., lot(s) or garage(s)), the percentage of spaces required by this checklist shall be applied to the total number of parking spaces in the common parking area(s) that are intended for use by the buildings' residents *or* by the total number of units in the buildings, whichever is less, and shall be based on the total number of dwelling units that share the parking area(s).

[9] Townhouses (as defined in the ZERH Multifamily V2 National Program Requirements) with private driveways or garages that are certifying under ZERH MF V2 must meet the DOE Zero Energy Ready Home Single Family Homes Version 2 EV-Readiness requirements:

- One parking space is provided per dwelling unit that includes a powered 208/240V, 30A receptacle installed in dwelling unit's garage or within 6 feet of the dwelling unit's private driveway. The electric service panel identifies the branch circuit as "Electric Vehicle Charging."

[10] Any Item that will be concealed by drywall (e.g., wall insulation) must be verified during the pre-drywall inspection. If drywall is installed prior to the inspection, then it must be entirely removed to fully verify all Items. It is not sufficient to remove only portions of drywall to inspect a subset of areas. Additional information is available in the ENERGY STAR Technical Bulletin: Pre-Drywall Inspection Is Always Required.

[11] Some Items can typically only be verified at a later stage of construction than when the pre-drywall inspection occurs (e.g., bath fan airflow). Any Item that has not been verified during the pre-drywall inspection must be verified prior to or during the final inspection.