

DOCUMENT FOR FOCUS GROUP DISCUSSION ONLY

2024 TRIENNIAL CODE ADOPTION CYCLE

ELECTRICAL VEHICLE CHARGING BUILDING STANDARDS

Approved EV Charging Regulations.

Chapter 4 Residential Mandatory Measures, Section 4.106.4.2.2 Multifamily dwellings, hotels and motels. HCD continued to adopt the referenced section with the following amendment:

1. **EV Ready Parking Spaces with Receptacles.**

- a. **Hotels and Motels.** Forty (40) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles.
- b. **Multifamily Parking Facilities.** Forty (40) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. EV charging receptacles required by this section shall be located in at least one assigned parking space per dwelling unit where assigned parking is provided but need not exceed forty (40) percent of the total number of assigned parking spaces provided on the site.

Exception: Areas of parking facilities served by parking lifts., including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.

- c. **Receptacle Power Source.** EV charging receptacles in multifamily parking facilities shall be provided with a dedicated branch circuit connected to the dwelling unit's electrical panel, unless determined as infeasible by the project builder or designer and subject to concurrence of the local enforcing agency.

Exception: Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.

- d. **Receptacle Configurations.** 208/240V EV charging receptacles shall comply with one of the following configurations:
 1. For 20- ampere receptacles, NEMA 6-20R
 2. For 30- ampere receptacles, NEMA 14-30R
 3. For 50- ampere receptacles, NEMA 14-50R

2. **EV Ready Parking Spaces with EV Chargers.**

- a. **Hotels and Motels.** Ten (10) percent of the total number of parking spaces shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the

required EV chargers shall be equipped with J1772 connectors.

- b. **Multifamily Parking Facilities.** Ten (10) percent of the total number of parking spaces shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors. Where common use parking or unassigned parking is provided, EV chargers shall be located in common use or unassigned parking areas and shall be available for use by all residents or guests.

Where low power Level 2 EV charging receptacles or Level 2 EV chargers are installed beyond the minimum required, an automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EV chargers shall have a capacity of not less than 30 amperes.

Appendix A4 Residential Voluntary Measures, Section A4.106.8.2 New multifamily development projects and hotels and motels. HCD continued to adopt the above referenced section with the following amendment:

A4.106.8.2 New multifamily dwellings, hotels and motels. New multifamily dwellings, hotels and motels shall meet the following requirements.

Tier 1. Tier 1 consists of Option A and Option B. One or both may be adopted as voluntary measures.

Option A for New multifamily dwellings, hotels and motels.

1. **EV Ready Parking Spaces with Receptacles.**
 - a. **Hotels and Motels.** Fifty (50) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles.
 - b. **Multifamily Parking Facilities.** Fifty (50) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. EV charging receptacles required by this section shall be located in at least one assigned parking space per dwelling unit where assigned parking is provided but need not exceed fifty (50) percent of the total number of assigned parking spaces provided on the site.

Exceptions:

1. Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.
2. Hotels and motels may substitute Level 2 EV chargers for some or all

of the required EV charging receptacles. Where Level 2 EV chargers are installed in place of low power Level 2 receptacles, at least fifty (50) percent of the installed EV chargers shall be equipped with J1772 connectors.

2. EV Ready Parking Spaces with EV Chargers.

- a. **Hotels and Motels.** Fifteen (15) percent of the total number of parking spaces for hotels and motels shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors.
- b. **Multifamily Parking Facilities.** Fifteen (15) percent of the total number of parking spaces shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors. Where common use parking or unassigned parking is provided, EV chargers shall be located in common use or unassigned parking areas and shall be available for use by all residents or guests.

Exception: Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.

An automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EV chargers shall have a capacity of not less than 30 amperes.

Option B Multifamily dwellings.

1. **EV Ready Parking Spaces with Receptacles.** For multifamily parking facilities, install low power Level 2 EV charging receptacles in at least one parking space for each dwelling unit with assigned parking.

Exceptions:

1. Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.
 2. Where the number of parking spaces available for residents is less than the total number of dwelling units.
2. **EV Ready Parking Spaces with EV Chargers.** Ten (10) percent, but not less than one, of common use parking spaces shall be equipped with Level 2

EV chargers for use by all residents or guests. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors.

Exceptions:

1. Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.
2. Where no common use parking spaces are provided.

An automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EV chargers shall have a capacity of not less than 30 amperes.

Tier 2. Tier 2 consists of Option A and Option B. One or both may be adopted as voluntary measures.

Option A for New multifamily dwellings, hotels and motels.

1. EV Ready Parking Spaces with Receptacles.

- a. **Hotels and Motels.** Fifty-five (55) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles.
- b. **Multifamily Parking Facilities.** Fifty-five (55) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. EV charging receptacles required by this section shall be located in at least one assigned parking space per dwelling unit where assigned parking is provided, but need not exceed fifty-five (55) percent of the total number of assigned parking spaces provided on the site.

Exceptions:

1. Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.
2. Hotels and motels may install Level 2 EV chargers instead of all or portions of the required percentage of low power Level 2 receptacles for EV charging. Where Level 2 EV chargers are installed in place of low power Level 2 receptacles, at least fifty (50) percent of the installed EV chargers shall be equipped with J1772 connectors.

2. EV Ready Parking Spaces with EV Chargers.

- a. **Hotels and Motels.** Twenty (20) percent of the total number of parking spaces for hotels and motels shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors.
- b. **Multifamily Parking Facilities.** Twenty (20) percent of the total number of parking spaces shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors. Where common use parking or unassigned parking is provided, EV chargers shall be located in the common use or unassigned parking areas and shall be available for use by all residents or guests.

Exceptions:

1. Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.
2. Where no common use parking spaces are provided.

An automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EV chargers shall have a capacity of not less than 30 amperes.

Option B Multifamily Developments.

1. **EV Ready Parking Spaces with Receptacles.** Install one low power Level 2 EV charging receptacle for each parking space available for use by residents.
Exception: Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.
2. **EV Ready Parking Spaces with EV Chargers.** Twenty (20) percent of parking available for nonresidents or guests shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors. Where common use parking is provided, EV chargers shall be located in the common use parking area and shall be available for use by all residents or guests.

Exceptions:

1. Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise

incapable of supporting electric vehicle charging.

2. Where no common use parking spaces are provided.

An automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EV chargers shall have a capacity of not less than 30 amperes.

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