DRAFT INITIAL EXPRESS TERMS - EV CHARGING ONLY FOR PROPOSED BUILDING STANDARDS OF THE CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT REGARDING THE 2025 CALIFORNIA GREEN BUILDING STANDARDS CODE, CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11 (HCD XX/24)

The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

If using assistive technology, please adjust your settings to recognize underline, strikeout, and ellipsis.

LEGEND for EXPRESS TERMS

- Existing amendments appear upright
- Amendments appear <u>underlined</u>
- Repealed California language appears upright and in strikeout

ITEM 1 (Item associated with Agenda item 2(g)(1))

Chapter 4 Residential Mandatory Measures, Section 4.106.4.2.2 Multifamily dwellings, hotels and motels. HCD proposes to adopt the above referenced section with amendments as follows:

4.106.4.2.2 Multifamily dwellings, hotels and motels.

- 1. EV Ready Parking Spaces with Receptacles.
 - <u>a.</u> 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. <u>a.</u> Multifamily Parking Facilities. with Assigned Parking. Forty (40) percent of the total number of parking spaces shall be equipped with lowpower Level 2 EV charging receptacles. EV charging receptacles required by this section shall be located in at least one assigned parking space perdwelling 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. Where dwelling units are provided with assigned parking spaces equal to or greater than the number of dwelling units, at least one low power Level 2 EV charging receptacle shall be provided at an assigned parking space for each dwelling unit.

1. Where the total number of dwelling units exceeds the number of assigned parking spaces, all assigned parking spaces shall be provided with one low power Level 2 EV charging receptacle.

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.

b. Multifamily Parking Facilities with Unassigned Parking. Where dwelling units are provided with unassigned parking spaces equal to or greater than the number of dwelling units, at least one low power Level 2 EV charging receptacle shall be provided at an unassigned parking space for each dwelling unit.

1. Where the total number of dwelling units exceeds the number of unassigned parking spaces, all unassigned parking spaces shall be provided with one low power Level 2 EV charging receptacle.

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. Multifamily Parking Facilities with Assigned and Unassigned Parking. Where multifamily buildings are provided with both assigned and unassigned parking spaces equal to or greater than the number of dwelling units, at least one low power Level 2 EV charging receptacle shall be provided for each dwelling unit at either the assigned or unassigned parking space, but not both.
- e. <u>d.</u> Receptacle Power Source. EV charging receptacles in multifamily parking facilities <u>at assigned parking spaces</u> 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. <u>e.</u> **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.
 - <u>a.</u> 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.

- a. b.-Multifamily Parking Facilities with Unassigned or Common Use Parking. 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. Wherecommon 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. In addition to the low power Level 2 EV charging receptacle requirements of section 4.106.4.2.2 (1), twenty-five (25) percent of unassigned or common use parking spaces shall be equipped with Level 2 EV chargers and shall be made available for use by all residents or guests.
- b. **EV Charger Connectors.** EV chargers shall be equipped with J1772 or J3400 connectors.

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.

c. 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.

Notation:

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955, 12955.1 and 12955.1.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955 and 12955.1.

ITEM 2 (Item associated with Agenda item 2(g)(2)) **Chapter 4 Residential Mandatory Measures, Section 4.106.4.2.6 Hotels and motels.** HCD proposes to adopt the above referenced new section as follows:

<u>Chapter 4 Residential Mandatory Measures, Section 4.106.4.2.6 Hotels and</u> motels.

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.

> **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.

- b. 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. Twenty-five (25) percent of the total number of parking spaces shall be equipped with Level 2 EV chargers.
- b. **EV Charger Connectors.** EV chargers shall be equipped with J1772 or J3400 connectors.

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. 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.

Notation:

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955, 12955.1 and 12955.1.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955 and 12955.1.

ITEM 3 (Item associated with Agenda item 2(g)(3))

Chapter 4 Residential Mandatory Measures, Section 4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multifamily buildings. HCD proposes to adopt the above referenced section with the following amendment:

4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multifamily buildings, <u>hotels, and motels.</u>

Where new parking facilities are added, or electrical systems or lighting of existingparking facilities are added or altered and the work requires a building permit, ten (10)percent of the total number of parking spaces added or altered shall be electric vehicle charging spaces (EV capable spaces) capable of supporting to support future Level 2-EVSE electric vehicle supply equipment. The service panel or subpanel circuitdirectory shall identify the overcurrent protective device space(s) reserved for future-EV charging purposes as "EV CAPABLE." When existing parking facilities are altered or new parking spaces are added to existing parking facilities, and the work requires a building permit, each parking space added or altered shall have access to either a low power Level 2 EV charging receptacle or Level 2 EV charger, unless determined as infeasible by the project builder or designer and subject to concurrence of the local enforcing agency.

Notes:

- 1. Construction documents are intended to demonstrate the project'scapability and capacity for facilitating future EV charging.
- 2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

Notation:

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955, 12955.1 and 12955.1.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955 and 12955.1.

ITEM 4 (Item associated with Agenda item 2(g)(4)) **Appendix A4 Residential Voluntary Measures, Section A4.106.8.2 New multifamily dwellings, hotels and motels.** HCD proposes 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 forNew multifamily dwellings, hotels and motels.

1. EV Ready Parking Spaces with Receptacles.

- Hotels and Motels. Fifty (50) Sixty (60) 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. Raceway Capacity Requirements. To allow for future upgrades to the electrical conductors serving low power Level 2 charging receptacles, the listed raceway serving such receptacles shall be sized to allow the installation of a dedicated 208/240-volt 40-ampere branch circuit. Where no raceway is used, the conductors shall be sized to accommodate a 208/240-volt 40-ampere receptacle.

Exceptions:

- 1. Areas of parking facilities served by parking lifts, including but notlimited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilitiesotherwise incapable of supporting electric vehicle charging.
- 2. 1. 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) Forty (40) 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.-with Unassigned or Common Use Parking. Fifteen (15) percent of the total number of parking spacesshall be equipped with Level 2 EV chargers. At least fifty (50) percentof the required EV chargers shall be equipped with J1772 connectors.-Where common use parking or unassigned parking is provided, EVchargers shall be located in common use or unassigned parking areasand shall be available for use by all residents or guests. In addition to the low power Level 2 EV charging receptacle requirements of Section A4.106.8 (Tier 1)(1), forty (40) percent of the total number of parking spaces shall be equipped with Level 2 EV chargers and shall be made 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 notlimited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilitiesotherwise 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 notlimited to automated mechanical-access open parking garages asdefined in the California Building Code; or parking facilitiesotherwise 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 dwellingunit 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 notlimited to automated mechanical-access open parking garages asdefined in the California Building Code; or parking facilitiesotherwise 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 J1772connectors. 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 notlimited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilitiesotherwise 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 notlimited to automated mechanical-access open parking garages asdefined in the California Building Code; or parking facilitiesotherwise 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.

Notation:

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955, 12955.1 and 12955.1.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955 and 12955.1.