

**INITIAL STATEMENT OF REASONS
FOR PROPOSED BUILDING STANDARDS OF THE
CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
REGARDING THE 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11**

(HCD 03/21)

The Administrative Procedure Act (APA) requires that an Initial Statement of Reasons be available to the public upon request when rulemaking action is being undertaken. The following information required by the APA pertains to this particular rulemaking action:

STATEMENT OF SPECIFIC PURPOSE, PROBLEM, RATIONALE and BENEFITS

Government Code Section 11346.2(b)(1) requires a statement of specific purpose of each adoption, amendment, or repeal and the problem the agency intends to address and the rationale for the determination by the agency that each adoption, amendment, or repeal is reasonably necessary to carry out the purpose and address the problem for which it is proposed. The statement shall enumerate the benefits anticipated from the regulatory action, including the benefits or goals provided in the authorizing statute.

The specific purpose for each adoption, amendment, or repeal and the problem the agency intends to address and the rationale for the change is summarized below on a section-by-section basis. Due to significant changes, including reformatting, in provisions related to electric vehicle (EV) charging HCD is providing general background information and need for the changes in the Background and History statement directly below.

Background, Recommended Solutions and Statutory Requirements related to EV Charging

The provisions related to EV charging proposed by HCD, as requested in part by the California Air Resources Board (CARB), include mandatory green building standards for occupancies within its authority, building upon a framework of voluntary measures adopted by HCD in 2008 and make modifications and clarifications to the 2019 CALGreen Code. The intent of the code continues to: (1) reduce greenhouse gas (GHG) emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; and (3) respond to the directives by the Governor in 2008 to develop a green building code.

HCD's proposed action will support the implementation of the Governor's Executive Orders B-16-2012, B-48-2018 and N-79-20 to achieve a benchmark of having over 1.5 million zero-emission vehicles (ZEVs) on California roadways by 2025, 5 million ZEVs on California roadways by 2030, and 100 percent of in-state sales of EVs by 2035, respectively. Per the California Energy Commission's (CEC) recent Assembly Bill 2127 staff report¹, California has a projected shortfall in the number of Level 2 chargers needed by 2025 to support California's 1.5 million ZEV target under Executive Order B-16-2012. This shortfall widens significantly when looking at 2030 and longer time horizons.

¹ <https://efiling.energy.ca.gov/getdocument.aspx?tn=236237>

The Governor's Executive Orders demonstrate the commitment to support a successful and growing market for EVs, which is a critical strategy to help reduce emissions of criteria air pollutants and GHG, to ensure equitable access to clean transportation, and to reduce dependence on petroleum-based fuels. HCD's proposed amendments for the 2022 CALGreen Code will support these Executive Orders.

The proposed amendments begin to provide comparable access to EV infrastructure that currently exists for one- and two-family dwellings. The current CALGreen code requires all one- and two-family dwellings and townhouses with attached private garages be equipped with Level 2 capable infrastructure, yet only 10 percent of parking spaces in multi-family dwellings are currently required to be Level 2 capable. Per a CEC assessment on Senate Bill 1000², nearly 30 percent of Californians live in multi-family dwellings, with over 70 percent of these residents located within low-income communities. The assessment indicates that up to 94 percent of EV owners living in single-family homes charge their vehicles from home, whereas 18 to 48 percent of EV owners living in multi-family dwellings charge from their place of residence. Further, the assessment indicates low-income households spend roughly one-third of their take-home income on transportation costs alone. Per data from the Department of Energy³, EV fueling costs are roughly half that of comparable gasoline vehicles, with further savings expected from reduced maintenance costs⁴. The reduced costs to operate EVs can greatly benefit low-income households that otherwise spend high proportions of income on transportation expenses, while improving air quality in low-income communities. This is further supported through the California Air Resources Board's (CARB's) Low Income Barriers Study, Part B: Overcoming Barriers to Clean Transportation Access for Low-Income Residents (Barriers Report)⁵ which highlights the challenges transportation affordability has on community mobility and meeting community-identified needs. CARB's Barriers Report assertion that lower costs of EV charging and maintenance relative to gasoline vehicles would greatly benefit low-income groups that currently spend significant amounts of income on transportation related expenses.

Unlike in single-family owner-occupied homes, tenants of multi-family dwellings do not have decision making power, or often landlord support to install EV infrastructure at their place of residence. Adding electrical panel capacity and conduit alone to support Level 2 charging in existing buildings costs \$7,000 - \$8,000 per space, more than six times higher than in new construction. It is therefore critical that CALGreen Code provide strategic charging access in multi-family dwellings. This will provide communities an enhanced ability to access convenient, more affordable, charging infrastructure at their place of residence, therefore, making EV adoption more accessible. HCD's proposed amendments to the 2022 CALGreen Code help provide more equitable access to charging for multifamily residents.

² [California Electric Vehicle Infrastructure Deployment Assessment: Senate Bill 1000 Report](#)

³ [eGallon | Department of Energy](#)

⁴ [Final Sustainable Communities Strategy Appendices \(ca.gov\)](#) | Table 10

⁵ [CARB Barriers Report: Final Guidance Document | California Air Resources Board](#)

In addition to supporting the Administration's directives, the goal of this proposal is to enable charging capability and immediate charging access at multifamily buildings in an effort to reduce the lack of access to EV charging which currently exists. This effort will further encourage the purchase and use of EVs for routine transportation.

Statewide application of the proposed building standards amendments will also provide substantial environmental and equity benefits through reduction in energy use, GHG emissions, criteria pollutants, and fossil fuel dependency. These benefits lead to improved public health and may result in significant cost savings (avoided costs) associated with future installation of EV charging stations at multifamily dwellings and hotels and motels.

Statutory References

- Under a mandate from Assembly Bill 1092 (Chapter 410, Statutes of 2013) authored by Assembly Member Levine, HCD was directed to develop mandatory EV standards for residential buildings during the 2016 Triennial Code Adoption Cycle.
- Under a mandate from Assembly Bill 1473 (Chapter 719, Statutes of 2008) authored by Senator Calderon, HCD was given authority to develop green building standards.
- Health and Safety Code section 18930.5(b) as amended by Assembly Bill 341 (Chapter 585, Statutes of 2013) allows HCD and other state agencies that propose building standards to allow for input by state agencies that have expertise in green building subject areas. The California Air Resources Board (CARB) has expertise in air quality, climate change, and EV charging infrastructure, as well as mechanisms for meeting community-identified transportation needs.

Item 1

CHAPTER 1, ADMINISTRATION

Rationale: The California Department of Housing and Community Development (HCD) proposes to continue adoption of chapter 1 from the 2019 California Green Building Standards (CALGreen) Code into the 2022 CALGreen with amendments as discussed below:

104.1 Scope. 1. Housing construction.

Rationale: HCD proposes to continue adoption of the above referenced section with modification. The proposed modification provides clarity and consistency with all parts of title 24 and update authority and references used for HCD 1. There is no intended change in regulatory effect. This change is in compliance with Nine-Point Criteria #2 to identify statutory authority for HCD to adopt regulations.

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

Item 2

CHAPTER 2, DEFINITIONS

Rationale: HCD proposes to continue adoption of chapter 2 from the 2019 CALGreen into the 2022 CALGreen with amendments as discussed below:

ELECTRIC VEHICLE (EV) CAPABLE SPACE

Rationale: Pursuant to section 1-404 of the California Administrative Code (title 24, part 1), CARB has requested HCD to propose this definition as related to EV charging to the 2022 CALGreen on behalf of CARB.

HCD proposes to adopt the above referenced definition to clarify the term as used within CALGreen and in the EV charging industry. This definition refers to a space which has capability or infrastructure to facilitate future EV charging. This definition is also co-adopted with CBSC.

ELECTRIC VEHICLE (EV) READY SPACE

Rationale: Pursuant to section 1-404 of the California Administrative Code (title 24, part 1), CARB has requested HCD to propose this definition as related to EV charging to the 2022 CALGreen on behalf of CARB.

HCD proposes to adopt the above referenced definition to clarify the term as used within CALGreen and in the EV charging industry. This definition refers to a space which is ready for EV charging. As used in the proposed text, the term refers to EV spaces equipped with low power Level 2 receptacles. This definition is also co-adopted with CBSC.

LEVEL 2 ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE).

Rationale: HCD proposes to continue adoption of the existing EVSE definition with clarification that the existing definition is for a Level 2 EV charger and supporting electrical equipment and not a Level 1 charger.

LOW POWER LEVEL 2 ELECTRIC VEHICLE (EV) CHARGING RECEPTACLE.

Rationale: HCD proposes adoption of this new definition to clarify the electrical requirements for this type of receptacle as required in proposed sections 4.106.4.2.1 and 4.106.4.2.2.

NONWATER URINAL WITH DRAIN CLEANSING ACTION

Rationale: HCD proposes to continue adoption of this definition (previously URINAL, HYBRID) with modification to align with the name of the fixture as referenced in the California Plumbing Code (CPC). The modification has no intended change in regulatory effect.

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

Item 3

CHAPTER 3, GREEN BUILDING

Rationale: HCD proposes to continue adoption of chapter 3 from the 2019 CALGreen into the 2022 CALGreen with amendment as discussed below:

301.1.1 Additions and alterations. [HCD]

Rationale: HCD proposes to continue adoption of the above referenced section with amendment. The existing scope of section 301.1.1 limits the application of CALGreen to

additions or alterations which increase a building's conditioned area, volume or size. The proposed amendment clarifies that CALGreen provisions may apply to additions or alterations of existing parking facilities or new parking facilities added to existing multifamily residential buildings. This clarification is needed to accommodate proposed section 4.106.4.2.3 and to avoid conflict with section 301.1.1 (Nine-point Criteria #1).

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

Item 4

CHAPTER 4, RESIDENTIAL MANDATORY MEASURES, DIVISION 4.1, PLANNING AND DESIGN

Rationale: HCD proposes to continue adoption of chapter 4, division 4.1, from the 2019 CALGreen into the 2022 CALGreen with amendments as discussed below:

4.106.4 Electric vehicle (EV) charging for new construction.

Rationale: HCD proposes to continue adoption of the above referenced section with amendment. The existing CALGreen provides specific exceptions from existing EV charging requirements. In accordance with the existing scope of CALGreen, the exceptions would apply to the requirements related to EV infrastructure (EV Capable spaces). HCD's current proposal expands the EV charging requirements to installation of EV charging receptacles and EV chargers (EVSE). Due to the expansion in scope, it is necessary to expand the exception to address all three types of requirements. As in the past, the intention of CALGreen is not to inflict unreasonable costs to residential building developers/owners. Therefore, the costs identified would provide exceptions from the applicable requirements if costs are unreasonable.

4.106.4.2 New multifamily dwellings.

4.106.4.2.1 Electric vehicle charging space (EV space) locations.

4.106.4.2.1.1 Electric vehicle charging stations (EVCS).

4.106.4.2.2 Electric vehicle charging space (EV space) dimensions

4.106.4.2.3 Single EV space required

4.106.4.2.4 Multiple EV spaces required.

4.106.4.2.5 Identification

Rationale: HCD proposes to repeal the above referenced sections and provisions for purposes of reformatting, modifying and adopting new sections addressing EV charging for multifamily buildings and hotels and motels.

4.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities.

Rationale: Pursuant to section 1-404 of the California Administrative Code (title 24, part 1), CARB has requested HCD to propose amendments to the 2022 CALGreen on behalf of CARB. Pending additional rationale from CARB.

HCD proposes adoption of the above newly revised section which provides an introduction to the EV charging requirements in subsequent sections addressing both multifamily dwellings and hotels/motels and clarifies that calculations for EV spaces are to be rounded

up to the nearest whole number. This section also provides reference to Vehicle Code (VC) section 22511.2 which allows EV spaces to be counted as parking spaces only for the purposes of meeting parking space requirements at the local level.

4.106.4.2.1 Multifamily development projects with less than 20 dwelling units; and hotels and motels with less than 20 sleeping units or guest rooms.

Rationale: Pursuant to section 1-404 of the California Administrative Code (title 24, part 1), CARB has requested HCD to propose amendments to the 2022 CALGreen on behalf of CARB.

HCD proposes adoption of the above referenced section which addresses EV charging requirements for new smaller residential projects with less than 20 units. This section retains the existing CALGreen requirement for 10 percent of parking spaces to be EV Capable, or have only requirements for infrastructure, to facilitate future EV charging with some exceptions if Level 2 chargers are installed on a voluntary basis by the developer. There is no intended change in regulatory effect.

HCD proposes a new requirement for installation of low power Level 2 receptacles for 25 percent of parking spaces in all new multifamily developments and clarification that that no more than one receptacle must be installed per dwelling unit. The low power Level 2 receptacle requirement was requested by stakeholders who demonstrated a need for actual access to charging in multifamily buildings. The low power Level 2 receptacles would facilitate shorter charging times than using typical household type electric receptacles and meet the needs of EV drivers with longer commutes and/or larger vehicle battery capacity.

Recent analysis shows that only roughly 30 percent of existing EV Capable spaces are currently being converted to EV charging stations. The proposed mandate will provide immediate access to charging through the deployment of receptacles and charging stations. The proposed mandate will provide immediate access to charging through the deployment of receptacles and charging stations, which are ultimately necessary to support the implementation of the state's goals for 5 million ZEVs by 2030, and to achieve the goal of 100 percent of in-state sales of EVs by 2035.

4.106.4.2.2 Multifamily development projects with 20 or more dwelling units, hotels and motels with 20 or more sleeping units or guest rooms.

Rationale: Pursuant to section 1-404 of the California Administrative Code (title 24, part 1), CARB has requested HCD to propose amendments to the 2022 CALGreen on behalf of CARB.

HCD proposes adoption of the above referenced section which addresses EV charging requirements for new larger residential projects with 20 or more units. The requirements for infrastructure (EV Capable) and low-power Level 2 receptacles (EV Ready) remain the same as for the new smaller projects. However, HCD proposes that the larger projects install Level 2 EV chargers (electric vehicle service equipment/EVSE) for 5 percent of parking spaces. This provides an actual Level 2 EV charger installed on site for EV users and faster charge times than the low power Level 2 receptacles. HCD also proposes an exception to all or a portion of the EV Capable requirement if building owners decide to voluntarily install Level 2 chargers in addition to the amount required in the code.

Additional comments related to multifamily developments projects (both sections 4.106.4.2.2 and 4.106.4.2.1)

Per CEC's Assembly Bill 2127 report, only 61,000 Level 2 public and shared private chargers (including multifamily dwellings and nonresidential chargers) were installed through September 2020. In order to support the 5 million ZEV deployment goal in 2030, a total of 181,000 to 223,000 chargers in multi-family buildings alone are needed. The proposed regulation will add an estimated 75,000 low-power Level 2 receptacles and Level 2 chargers in new multifamily buildings between the beginning of 2023 and the end of 2025 (effective period of the 2022 CALGreen Code). Assuming 1 percent of existing buildings will undergo parking facility retrofits requiring Level 2 capable infrastructure installations between the beginning of 2023 and the end of 2025 the proposed regulation would add an additional 18,000 Level 2 capable spaces.

The changes to the new construction provisions will help improve air quality and reduce an estimated 267,000 metric tons of carbon dioxide equivalent (CO₂e) annually between 2023 and the end of 2025 in new multifamily buildings.

Estimated Costs: \$104 million to \$183 million (Additional costs related to the new requirements for new multifamily developments)

Additional comments related to hotel projects (both 4.106.4.2.2 and 4.106.4.2.1)

HCD is moving forward with the CARB suggested changes and proposes to increase the Level 2 EV Capable requirement from 6 percent to 10 percent of parking spaces in new hotels and motels, add a requirement for low-power Level 2 receptacles in 25 percent of new parking spaces, and add a requirement for Level 2 charging stations in 5 percent of new parking spaces for hotel and motel developments with 20 or more units. Recent analysis shows that only roughly 30 percent of existing EV Capable spaces are being converted with EV chargers. The proposed mandate will instead provide immediate access to charging through the deployment of receptacles and charging stations, which are ultimately necessary to support the implementation of goals for 5 million ZEVs by 2030, and to achieve the goals for 100 percent of in-state sales of electric vehicles by 2035.

In addition to supporting the Administration's directives, the goal of this proposal is to enable future charging capability at hotel and motel buildings in an effort to reduce the lack of access to EV charging for travelers which currently exists. HCD and CARB staff believe this effort will further encourage the purchase and use of EVs.

The proposed regulation will add an estimated 2,000 Level 2 capable spaces and 15,000 to 19,000 low-power Level 2 receptacles and Level 2 chargers in new hotels and motels between the beginning of 2023 and the end of 2025. This change will help improve air quality and reduce an estimated 60,000 to 72,000 metric tons of carbon dioxide equivalent (CO₂e) annually between 2023 and the end of 2025 in new hotels and motels.

Estimated Costs: \$17.3 million to \$36.8 million. (Additional costs related to the new requirements for new hotel and motel developments)

4.106.4.2.2.1 Electric vehicle charging stations (EVCS). (formerly 4.106.2.1.1)

4.106.4.2.2.2 Electric vehicle charging stations (EVCS) dimensions. (formerly 4.106.4.2.2)

4.106.4.2.2.3 Accessible EV spaces. (formerly 4.106.4.2.1.1 and 4.106.4.3.6)

Rationale: HCD proposes re-adoption of the above referenced sections as renumbered and relocated. The requirement for location adjacent to an accessible parking space or on an accessible route apply to spaces with EV chargers. The requirements for dimensions also apply to spaces with EV chargers. The references to the California Building Code

(CBC), chapter 11A, Housing Accessibility or chapter 11B, Accessibility to Public Buildings, Public Accommodations, Commercial Buildings and Public Housing provide guidance for accessibility requirements depending on whether the project is a privately funded multifamily project, public housing, or public accommodation (hotel or motel).

4.106.4.2.3 Electric vehicle charging for additions and alterations of parking lots serving existing multifamily buildings.

Rationale: HCD proposes adoption of the above referenced new section. HCD's proposal is in response to the Governor's veto message of Assembly Bill 684 (2019) which directed HCD to research, develop, and propose adoption of building standards related to installation of future EV charging infrastructure for parking spaces for existing multifamily dwellings. Although the bill was vetoed by the Governor, he stated in the veto message, that it would be best to address the issue administratively to balance charging infrastructure objectives with efforts to expand affordable housing. The Governor then directed HCD to develop and propose building standards that would increase the availability of EV charging infrastructure at existing multifamily properties, while limiting costs for affordable housing. HCD has proposed that the section only apply to new parking lots that are constructed for existing buildings and when permitted activities, e.g., installation of photovoltaic systems, occur in a parking lot such as electrical repairs or upgrades which are opportunities to include additional electrical equipment to support future EV charging.

HCD is also moving forward with proposed requirements for EV infrastructure in existing multifamily buildings when new parking facilities are added, electrical systems or lighting of existing parking facilities are added or altered, e.g., PV systems are installed in parking lots, and the work requires a building permit. In such instances, 10 percent of the total number of parking spaces added or altered will be electric vehicle spaces capable of supporting future Level 2 EVSE (EV Capable Spaces). The majority of California's building stock was constructed prior to when CalGreen EV charging codes were enacted. There is significant potential for existing buildings to support California's 2030 and 2035 ZEV deployment goals through this measure, while ensuring infrastructure deployments are accomplished cost-effectively at the time of other major renovations.

HCD and ARB are not able to estimate costs since there are no records of the number of existing residential parking lots or a method to estimate how many new parking lots would be added to existing multifamily buildings, or when existing parking lots would be undergoing permitted upgrades.

4.106.4.2.4 EV space requirements. (formerly 4.106.4.2.3/4.106.4.3.3 and 4.106.4.2.4/4.106.4.3.4)

4.106.4.2.5 Identification. (formerly 4.106.2.5 and 4.106.4.3.5)

Rationale: HCD proposes re-adoption of the above referenced sections as renumbered and relocated. These requirements provide requirements for raceways, construction documents, service panel capacity and service panel directory identification. The existing provisions have been modified to address sites with infrastructure and actual installation of equipment.

- 4.106.4.3 New hotels and motels.**
- 4.106.4.3.1 Number of required EV spaces.**
- 4.106.4.3.1 Number of required EV spaces.**

TABLE 4.106.4.3.1

4.106.4.3.2	Electric vehicle charging space (EV space) dimensions.
4106.4.3.3	Single EV space required.
4.106.4.3.4	Multiple EV spaces required.
4.106.4.3.5	Identification.
4.106.4.3.6	Accessible EV spaces.

Rationale: HCD proposes to repeal the above referenced sections for purposes of reformatting, modifying, and adopting new sections addressing EV charging for multifamily buildings; and hotels and motels.

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

Item 5

CHAPTER 4, RESIDENTIAL MANDATORY MEASURES, DIVISION 4.3, WATER EFFICIENCY AND CONSERVATION

Rationale: HCD proposes to continue adoption of chapter 4, division 4.3, from the 2019 CALGreen into the 2022 CALGreen without amendment and with no intended change in regulatory effect.

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

Item 6

CHAPTER 4, RESIDENTIAL MANDATORY MEASURES, DIVISION 4.4, MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

Rationale: HCD proposes to continue adoption of chapter 4, division 4.4, from the 2019 CALGreen into the 2022 CALGreen with amendments as discussed below:

4.410.1, Operation and maintenance manual.

Rationale: Pursuant to Senate Bill 280 (Chapter 640, Statutes 2019) HCD is proposing Fall Prevention measures in the 2022 California Residential Code (CRC) which require grab bar reinforcements in certain circumstances. New Item #11 of Section 4.410.1 requires that information and/or drawings identifying the location of the grab bar reinforcements to be placed in the building.

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

Item 7

**CHAPTER 4, RESIDENTIAL MANDATORY MEASURES, DIVISION 4.5,
ENVIRONMENTAL QUALITY**

Rationale: HCD proposes to continue adoption of this chapter 4, division 4.5, from the 2019 CALGreen into the 2022 CALGreen without amendment and with no intended change in regulatory effect.

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

Item 8

CHAPTER 6, REFERENCED ORGANIZATIONS AND STANDARDS

Rationale: HCD proposes to continue adoption of chapter 6 from the 2019 CALGreen into the 2022 CALGreen without amendment and with no intended change in regulatory effect.

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

Item 9

CHAPTER 7, INSTALLER AND SPECIAL INSPECTOR QUALIFICATIONS

Rationale: HCD proposes to continue adoption of chapter 7 from the 2019 CALGreen into the 2022 CALGreen without amendment and with no intended change in regulatory effect.

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

Item 10

CHAPTER 8, COMPLIANCE FORM, WORKSHEET, AND REFERENCE MATERIAL

Rationale: HCD proposes to continue non-adoption of chapter 8.

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

Item 11

APPENDIX A4, RESIDENTIAL VOLUNTARY MEASURES, DIVISION A4.1, PLANNING AND DESIGN

Rationale: HCD proposes to continue adoption of appendix A4, division 4.1, from the 2019 CALGreen into the 2022 CALGreen with amendments as discussed below:

Section A4.106.8.2 New multifamily development projects and hotels and motels.

Rationale: Pursuant to section 1-404 of the California Administrative Code (title 24, part 1), HCD is proposing amendments to the 2022 CALGreen on behalf of CARB. HCD proposes to continue adoption of the above referenced section with modification. This is only an introductory section to subsequent sections.

A4.106.8.2.1 Multifamily development projects and hotels and motels.

Tier 1 and Tier 2

Rationale: Pursuant to section 1-404 of the California Administrative Code (title 24, part 1), HCD is proposing amendments to the 2022 CALGreen on behalf of CARB.

HCD proposes adoption of the above referenced new section. HCD proposes to modify the provisions for Tier 1 and Tier 2 to repeal requirements for EV Capable spaces for multifamily and hotels and motels and instead require increased percentages in installation of low power Level 2 receptacles. An additional requirement is added, to increase the percentage of chargers to be installed in multifamily residential and hotel and motel projects with 20 or more units. These measures provide options for increased access to EV charging and increased reliability for EV charging at multifamily buildings and hotels and motels.

Additional comments related to multifamily projects

HCD proposes to include a voluntary Tier 1 provision for 35 percent of total new parking spaces with low-power Level 2 receptacles in all new multifamily dwellings, along with Level 2 chargers in 10 percent of total new parking spaces in new developments with 20 or more units in an effort to further advance the potential for EV charging access. The Tier 1 provisions do not include requirements for Level 2 EV Capable spaces. There is no fiscal effect since Tier 1 is a voluntary measure available for adoption by local agencies. If all local governments adopted Tier 1 as mandatory, it may add up to 0.5 percent to total costs for multifamily new construction beyond the proposed mandatory provisions. An estimated incremental GHG reduction of 97,000 metric tons CO₂e emissions could be achieved annually by 2025 through the new Tier 1 provisions compared to the proposed mandatory provisions.

HCD proposes to include a voluntary Tier 2 provision for 40 percent of total new parking spaces with low-power Level 2 receptacles in new multifamily dwellings along with Level 2 chargers in 15 percent of total new parking spaces in new developments with 20 or more units in an effort to further advance the potential for EV charging access. The Tier 2 provisions do not include requirements for Level 2 EV Capable spaces. There is no fiscal effect since Tier 2 is a voluntary measure available for adoption by local agencies. If all local governments adopted Tier 2 as mandatory, it may add up to 0.1 percent to 1.0 percent to total costs for multifamily new construction beyond the proposed mandatory provisions. An estimated incremental GHG reduction of 203,000 metric tons CO₂e emissions could be achieved annually by 2025 through the new Tier 2 provisions compared to the proposed mandatory provisions.

Additional comments related to hotel/motel projects

HCD proposes to include a Tier 1 provision for 35 percent of total new parking spaces with low power Level 2 receptacles in all new hotels and motels, along with Level 2 chargers in 10 percent of total new parking spaces in new developments with 20 or more units in an effort to further advance the potential for EV charging access. The Tier 1 provisions do not include requirements for Level 2 EV Capable spaces. There is no fiscal effect since Tier 1 is a voluntary measure available for adoption by local agencies. If all local governments adopted Tier 1 as mandatory, it may add up to 0.3 percent to total costs for hotel and motel new construction beyond the proposed mandatory provisions. An estimated incremental GHG reduction of 21,000 to 27,000 metric tons CO₂e emissions could be achieved annually by 2025 through the new Tier 1 provisions compared to the proposed mandatory provisions.

HCD proposes to include a Tier 2 provision for 40 percent of total new parking spaces with low-power Level 2 receptacles in all new hotels and motels, along with Level 2 chargers in 15 percent of total new parking spaces in new developments with 20 or more units in an effort to further advance the potential for EV charging access. The Tier 2 provisions do not include requirements for Level 2 EV Capable spaces. There is no fiscal effect since Tier 2 is a voluntary measure available for adoption by local agencies. If all local governments adopted Tier 2 as mandatory, it may add 0.8 percent to total costs for hotel and motel new construction beyond the proposed mandatory provisions. An estimated incremental GHG reduction of 44,000 to 55,000 metric tons CO₂e emissions could be achieved annually by 2025 through the new Tier 2 provisions compared to the proposed mandatory provisions.

A4.106.8.2.2 Technical requirements. (formerly A4.106.8.2.1)

Rationale: HCD proposes re-adoption of the above referenced section as renumbered and relocated. These requirements provide references to sections including requirements for construction documents, charging station locations and dimensions, single and multiple space requirements, and service panel identification. The existing provisions have been modified to address sites with infrastructure and actual installation of equipment.

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

Item 12

APPENDIX A4, RESIDENTIAL VOLUNTARY MEASURES, DIVISION A4.3, WATER EFFICIENCY AND CONSERVATION

Rationale: HCD proposes to continue adoption of appendix A4, division 4.3, from the 2019 CALGreen into the 2022 CALGreen with amendments as discussed below:

A4.303.4 Nonwater urinals and waterless toilets

Rationale: HCD proposes to continue adoption of this section (formerly hybrid urinals) from the 2019 CALGreen into the 2022 CALGreen with modification to align terminology with the CPC. The modification has no intended change in regulatory effect.

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

Item 13

APPENDIX A4, RESIDENTIAL VOLUNTARY MEASURES, DIVISION A4.4, MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

Rationale: HCD proposes to continue adoption of appendix A4, division A4.4, from the 2019 CALGreen into the 2022 CALGreen without amendment and with no intended change in regulatory effect.

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

Item 14

APPENDIX A4, RESIDENTIAL VOLUNTARY MEASURES, DIVISION A4.5, ENVIRONMENTAL QUALITY

Rationale: HCD proposes to continue adoption of appendix A4, division A4.5, from the 2019 CALGreen into the 2022 CALGreen without amendment and with no intended change in regulatory effect.

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

Item 15

APPENDIX A4, RESIDENTIAL VOLUNTARY MEASURES, DIVISION A4.6, TIER 1 AND TIER 2

A4.602 RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST

Rationale: HCD proposes to continue adoption of the above referenced section from the 2019 CALGreen into the 2022 CALGreen with amendments. HCD's proposed amendments provide alignment with changes in other chapters and appendices.

CAC Recommendation (if applicable):

TBD

Agency Response:

TBD

TECHNICAL, THEORETICAL, AND EMPIRICAL STUDY, REPORT, OR SIMILAR DOCUMENTS

Government Code Section 11346.2(b)(3) requires an identification of each technical, theoretical, and empirical study, report, or similar document, if any, upon which the agency relies in proposing the regulation(s).

- January 2021, Gavin Newsom, Governor, Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment, Analyzing Charging Needs to Support Zero-Emission Vehicles in 2030, CEC-600-2021-001.
- 2020, California Energy Commission, California Electric Vehicle Infrastructure Deployment Assessment: Senate Bill 1000 Report, Publication Number: CEC-600-2020-009.
- 2019, California Air Resources Board, Final Sustainable Communities Strategy Program and Evaluation Guidelines Appendices Table 10.
- 2018, California Air Resources Board, Low-Income Barriers Study, Part B: Overcoming Barriers to Clean Transportation Access for Low-Income Residents, Final Guidance Document.
- 2021, U.S. Department of Energy, eGallon Compare the costs of driving with electricity, website: [Department of Energy eGallon](#)

STATEMENT OF JUSTIFICATION FOR PRESCRIPTIVE STANDARDS

Government Code Section 11346.2(b)(1) requires a statement of the reasons why an agency believes any mandates for specific technologies or equipment or prescriptive standards are required.

HCD is statutorily required to adopt by reference model building codes for other parts of the California Building Standards Code which contain prescriptive standards. Although CALGreen is not based on a model code, prescriptive standards provide the following: explicit guidance for certain mandated requirements; consistent application and enforcement of building standards while also establishing clear design parameters; and ensure compliance with minimum health, safety, and welfare standards for owners, occupants, and guests.

Performance standards are permitted by state law; however, they must be demonstrated to the satisfaction of the proper enforcing agency. The CALGreen proposals do include a performance standard related to EV charging.

CONSIDERATION OF REASONABLE ALTERNATIVES

Government Code Section 11346.2(b)(4)(A) requires a description of reasonable alternatives to the regulation and the agency's reasons for rejecting those alternatives. In the case of a regulation that would mandate the use of specific technologies or equipment or prescribe specific action or procedures, the imposition of performance standards shall be considered as an alternate. It is not the intent of this paragraph to require the agency to artificially construct alternatives or describe unreasonable alternatives.

HCD's proposals during this triennial code cycle are intended to add necessary mandatory provisions in CALGreen to meet EV deployment goals as set forth by Governor's Executive Orders B-48-2018 and N-79-20. The two alternatives considered were to adopt the proposed Tier 1 and Tier 2 provisions as mandatory. These alternatives were rejected

at this time because they are more costly to implement. However, local jurisdictions still have the ability to adopt these higher-level thresholds depending on local context.

REASONABLE ALTERNATIVES THE AGENCY HAS IDENTIFIED THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

Government Code Section 11346.2(b)(4)(B) requires a description of any reasonable alternatives that have been identified or that have otherwise been identified and brought to the attention of the agency that would lessen any adverse impact on small business.

No alternatives were identified to lessen the adverse impact on small business, but most of the modifications to the code are proposed for facilitation of understanding and compliance by the code user. Those proposals that are new to the code or are made more stringent have been thoroughly vetted through stakeholder outreach and have been justified by proposing parties as to cost/benefit.

FACTS, EVIDENCE, DOCUMENTS, TESTIMONY, OR OTHER EVIDENCE OF NO SIGNIFICANT ADVERSE IMPACT ON BUSINESS

Government Code Section 11346.2(b)(5)(A) requires the facts, evidence, documents, testimony, or other evidence on which the agency relies to support an initial determination that the action will not have a significant adverse economic impact on business.

HCD has determined that this regulatory action would increase costs marginally to California business enterprises representing 0.1 – 1.4 percent of the total new construction costs of multifamily buildings and 0.5 – 1.1 percent of the total new construction costs of hotels/motels with significant benefits to Californians due to improved air quality and GHG emission reductions.

ASSESSMENT OF EFFECT OF REGULATIONS UPON JOBS AND BUSINESS EXPANSION, ELIMINATION OR CREATION

Government Code Sections 11346.3(b)(1) and 11346.5(a)(10)

Department of Housing and Community Development has assessed whether or not and to what extent this proposal will affect the following:

A. The creation or elimination of jobs within the State of California.

Some jobs may be created for installation, maintenance, and manufacturing of Electric Vehicle Supply Equipment (EVSE). No jobs are expected to be eliminated.

B. The creation of new businesses or the elimination of existing businesses within the State of California.

Some special trade construction businesses may be created. No business is expected to be eliminated.

C. The expansion of businesses currently doing business within the State of California.

The proposal is likely to promote the expansion of businesses currently involved in EV manufacturing, installation, maintenance, use and technology development.

D. The benefits of the regulation to the health and welfare of California residents, worker safety, and the state's environment.

Increases the sustainability of CA's natural resources, and promotes public health by reducing fuel use, GHG emissions, and criteria pollutants.

ESTIMATED COST OF COMPLIANCE, ESTIMATED POTENTIAL BENEFITS, AND RELATED ASSUMPTIONS USED FOR BUILDING STANDARDS

Government Code Section 11346.2(b)(5)(B)(i) states if a proposed regulation is a building standard, the initial statement of reasons shall include the estimated cost of compliance, the estimated potential benefits, and the related assumptions used to determine the estimates.

The cost for installing mandatory measures has an estimated cost increase of about 0.1 percent to 1.4 percent for multifamily buildings and 0.5 percent to 1.1 percent for hotels/motels. Initial construction costs in new buildings of \$104 - \$183 million may be incurred between the beginning of 2023 and the end of 2025 due to the adoption of this proposed mandatory measure, or \$35 million to \$61 million annually. Additional costs may be incurred for ADA compliance which can vary greatly from property to property. Installing the same levels of EV infrastructure as required by the proposed mandatory measure after construction would cost \$648 million to \$771 million over a three-year period if installed exclusively as standalone retrofits in existing buildings. An estimated statewide-avoided cost (benefit) of \$465 million to \$667 million may be achieved by adopting these revisions to the EV charging infrastructure provisions during new construction. Additional costs will be incurred for new requirements for existing buildings, depending on the nature and frequency of retrofit activities.

This measure will protect public health and safety, the environment, and the general welfare of California residents.

DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS

Government Code Section 11346.2(b)(6) requires a department, board, or commission within the Environmental Protection Agency, the Resources Agency, or the Office of the State Fire Marshal to describe its efforts, in connection with a proposed rulemaking action, to avoid unnecessary duplication or conflicts with federal regulations contained in the Code of Federal Regulations addressing the same issues. These agencies may adopt regulations different from these federal regulations upon a finding of one or more of the following justifications: (A) The differing state regulations are authorized by law and/or (B) The cost of differing state regulations is justified by the benefit to human health, public safety, public welfare, or the environment.

These regulations are neither duplicative of nor conflict with federal regulations.