

2020 REPORT TO THE LEGISLATURE

Status of the California Green

Building Standards Code



California Department of Housing and Community Development

September 2020



A Report on:

The California Green Building Standards Code

This report provides the California State Legislature information on updates proposed to the California Green Building Standards Code and related activities conducted by the California Department of Housing and Community Development during the 2019-2020 fiscal year.



State of California

Gavin Newsom, Governor

Lourdes M. Castro Ramírez, Secretary
Business, Consumer Services and Housing Agency

Gustavo Velasquez, Director
California Department of Housing and Community Development

Division of Codes and Standards, Main Office
9342 Tech Center Drive, Suite 500
Sacramento, CA 95826

Cover photo: State Housing Law Program staff photo: single-family home.

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Abbreviations and Acronyms

ADU	Accessory Dwelling Unit
ACCA	Air Conditioning Contractors of America
ANSI	American National Standards Institute
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
CAC	Code Advisory Committee
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Commission
CDFA	California Department of Food and Agriculture
CDPH	California Department of Public Health
CEC	California Energy Commission
CHPS	Collaborative for High Performance Schools
CPC	California Plumbing Code
CSA	Canadian Standards Association
DSA	Division of the State Architect
DWR	Department of Water Resources
EPA	Environmental Protection Agency
EV	Electric Vehicle
EVCS	Electric Vehicle Charging Station
GHG	Greenhouse Gas
GPM	Gallons Per Minute
HCD	California Department of Housing and Community Development
HSC	Health and Safety Code
IAFF	International Association of Fire Fighters
IAPMO	International Association of Plumbing and Mechanical Officials
IECC	International Energy Conservation Code
IgCC	International Green Construction Code
JADU	Junior Accessory Dwelling Unit

LEED	Leadership in Energy and Environmental Design
MERV	Minimum Efficiency Report Value
MWELO	Model Water Efficient Landscape Ordinance
NSF	National Sanitation Foundation
SEAC	Sustainable Energy Action Committee
SHL	State Housing Law
SWRCB	State Water Resources Control Board
UL	Underwriters Laboratories
UMC	Uniform Mechanical Code
UPC	Uniform Plumbing Code

Preface

This report is prepared in accordance with California Health and Safety Code (HSC) Section 17928, subdivision (b), which requires the California Department of Housing and Community Development (HCD) to submit a report to each house of the California Legislature no later than September 1 of each year. HSC Section 17928 has been reprinted below for reference and convenience. The following are the specific topic areas discussed in this report:

1. Green building features proposed as building standards during the prior fiscal year.
2. Green building guidelines or resources reviewed during the development of green building measures proposed as building standards during the prior fiscal year.

Health and Safety Code Section 17928

17928. (a)(1) The Department of Housing and Community Development shall, for building standards submitted to the California Building Standards Commission for adoption in the 2010 California Building Code or later, do all the following:

(A) Review relevant green building guidelines as deemed necessary by the department when preparing proposed building standards for submittal.

(B) Consider proposing as mandatory building standards those green building features determined by the department to be cost effective and feasible to promote greener construction.

(2) Nothing in this subdivision shall be construed to supplant or otherwise change the existing process for approval and adoption of building standards through the California Building Standards Commission.

(b)(1) The department shall also summarize in a report to the Legislature no later than September 1 of each year, both of the following:

(A) Green building features proposed as building standards during the prior fiscal year.

(B) Green building guidelines reviewed pursuant to subdivision (a) during the prior fiscal year.

(2) For those items required by this subdivision already included in other reports provided to the Legislature or generally available, the department may fulfill this requirement by citing where that information can be found.

Note: The California Green Building Standards Code (CALGreen), including updates, may be viewed on the [California Building Standards Commission's \(CBSC's\) website](#). The current and previous CALGreen reports can be viewed on the [California Department of Housing and Community Development's \(HCD's\) website](#). Hardcopies are available upon request. Please contact HCD's State Housing Law (SHL) program staff at (800) 952-8356.

HCD reviewed the following green building guidelines, programs, and resources related to proposed building standards over the past fiscal year:

- Collaborative for High Performance Schools (CHPS)
- U.S. Green Building Council—Leadership in Energy and Environmental Design (LEED)
- Build it Green—GreenPoint Rated Program
- Green Building Initiative—Green Globes Program
- California Department of Public Health (CDPH), Indoor Air Quality Section
- American National Standards Institute (ANSI) / American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Standard 189.1-2017 “Standard for the Design of High-Performance Green Buildings” and International Green Construction Code (IgCC) combined to create: “IgCC Powered by 189.1”
- ANSI / ASHRAE Standard 62.2-2016 “Ventilation and Acceptable Indoor Air Quality in Residential Buildings”
- 2018 International Code Council (ICC) 700, National Green Building Standard
- International Association of Plumbing and Mechanical Officials (IAPMO) 2015 Green Plumbing and Mechanical Code Supplement
- 2018 IAPMO Uniform Mechanical Code (UMC) and Uniform Plumbing Code (UPC) Sustainable Practices Appendices
- IAPMO update to Appendices
- National Sanitation Foundation (NSF) / ANSI Standard 350-2014: “On-site Residential and Commercial Water Reuse Treatment Systems”
- NSF / ANSI Standard 350-1-2017: “On-site Residential and Commercial Graywater Treatment Systems for Subsurface Discharge”
- 2018 International Energy Conservation Code (IECC)
- Assembly Bill 341 (Chapter 476, Statutes of 2011) Report to the Legislature: CalRecycle’s 75 Percent Initiative, CalRecycle
- California Code of Regulations, title 20, California Energy Commission’s (CEC’s) Appliance Efficiency Regulations
- California Code of Regulations, title 24, CEC’s Building Energy Efficiency Standards

HCD uses an open public process when developing proposed changes to CALGreen. For example, public focus group meetings are used to gather stakeholder input regarding proposed building standards. Relevant state agencies, concerned stakeholder groups, and others commonly participate, including:

- Building officials
- Design professionals
- Construction industry representatives
- Building product manufacturer representatives
- Model code writing representatives
- Environmental community representatives
- Federal and state agency representatives
- Public utility representatives
- Disabled access community representatives

I. Background and History

California and its Department of Housing and Community Development (HCD), longtime leaders in green and sustainable building practices, developed the California Green Building Standards Code (CALGreen) in order to help protect our environment, and improve the health, safety, and general welfare of the public by enhancing the design and construction of buildings. CALGreen encourages sustainable construction practices that use building concepts to reduce negative environmental impacts, and/or increase positive impacts, related to the following:

- Planning and design
- Energy efficiency
- Water efficiency and conservation
- Material conservation and resource efficiency
- Environmental quality



State Housing Law Program staff photo: Drought-resistant landscaping.

Enacted as a Voluntary Code, 2008

The 2008 CALGreen (California Code of Regulations, title 24, part 11) was approved by the California Building Standards Commission (CBSC) in January 2008 and went into effect in August 2009. This first edition of CALGreen was a voluntary code adopted by HCD.

No Fees

Unlike some rating systems—such as Leadership in Energy and Environmental Design (LEED) or the Green Globes system—that have additional licensing, certification, rating, and/or verification costs, CALGreen does not require fees.

Enforcement

CALGreen, like other building codes, is enforced by existing local enforcement agencies.

Updates to 2008 CALGreen

HCD updated the original 2008 CALGreen during the 2009–2010 fiscal year through the 2009 Triennial Code Adoption Cycle. This process involved soliciting public input and reviewing and analyzing necessary changes. The 2008 CALGreen was *voluntary*, unless adopted as a mandatory requirement by a local enforcement agency. The most noteworthy proposed update was made by HCD to establish “mandatory minimum requirements.” Thus, the 2010 CALGreen became the nation’s first state-mandated green building code. Subsequently, the mandatory provisions of the 2010 CALGreen (under development at that time) were discussed in the California Air Resources Board’s (CARB’s) Climate Change Scoping Plan (first published in 2009) as one of the tools to implement the California Global Warming Solutions Act of 2006, Assembly Bill 32 (Chapter 488, Statutes of 2006).

CARB’s scoping plan contains additional guidance encouraging local jurisdictions to go beyond the mandatory minimum requirements.

Furthermore, the 2009–2010 updates added a tiered system to the 2010 CALGreen to give local enforcement agencies the ability to adopt consistent and streamlined methods for green building construction above and beyond the mandatory minimum requirements. The tiered system, a voluntary portion of CALGreen, has become increasingly popular in jurisdictions that wish to further reduce greenhouse gas emissions and promote additional sustainable construction practices.

Updates to 2010 CALGreen

During the 2011–2012 fiscal year, HCD updated the 2010 CALGreen through the 2012 Triennial Code Adoption Cycle. HCD conducted a comprehensive evaluation of mandatory and voluntary updates before expanding the scope of CALGreen to include all residential buildings, rather than only low-rise residential buildings (three stories or less). HCD also expanded the scope to include additions and alterations that increase the conditioned area, volume, or size of a building. This requirement captured many additions and alterations to existing buildings, thereby increasing the effectiveness of CALGreen by implementing enforceable, sustainable building standards that have a positive impact on the environment.

Updates to 2013 CALGreen

During the 2013 Intervening Code Adoption Cycle, HCD proposed to adopt previously voluntary electric vehicle (EV) charging measures as mandatory. These provisions became effective on July 1, 2015.

The code required one- and two-family dwellings and townhouses with attached private garages to install infrastructure for future installation of EV supply equipment. The code also required new multifamily projects with 17 or more dwelling units to allocate 3 percent of the total number of parking spaces for future installation of EV supply equipment.

During the 2015–2016 fiscal year, HCD proposed emergency amendments to the 2013 CALGreen. Facing historic drought conditions, the State of California and HCD were charged with finding additional ways to further reduce the use of potable water. The directives in the Governor’s Executive Order B-29-15, issued on April 1, 2015, stressed the importance of continuing actions to conserve California’s water resources. In coordination with other state agencies, HCD proposed the emergency adoption of building standards requiring a water budget for landscape irrigation that conformed to a local water efficient landscape ordinance, or to the California Department of Water Resources’ (DWRs’) Model Water Efficient Landscape Ordinance (MWELo), whichever was more stringent. HCD’s emergency provisions in CALGreen also included a modification to the formula for calculating water use for residential landscaped areas, thereby further reducing the allowable use of potable water for landscaped areas beyond the MWELo requirements. CBSC approved the permanent adoption of these emergency provisions on January 20, 2016.

Outdoor residential water use is a significant portion of overall residential water use. The emergency amendment requiring a water budget for landscape irrigation and compliance with MWELo helped to conserve potable water, but HCD identified an additional opportunity for water use reduction and proposed emergency regulations for reduced flow faucets and reduced flush volume urinals. CBSC also approved the permanent adoption of these emergency provisions on January 20, 2016.

Updates to 2016 CALGreen

During the 2016–2017 fiscal year, HCD updated CALGreen through the 2015 Triennial Code Adoption Cycle. HCD adopted three new definitions related to EV charging regulations. These definitions provided clarity to the code user as to the differences between an EV charging space and an EV charging station (EVCS). HCD replaced the term “EV charging stations” with “EV charging spaces” since the term “EV charging space” better describes a space available for future installation of EV supply equipment, but with no EV charger installed. The proposed modification in terminology was also in alignment with the terminology used by the Division of the State Architect (DSA) in Chapter 11B of the California Building Code (CBC).

HCD also increased the required construction waste reduction from 50 percent to 65 percent of the total building site construction waste. This increase aids in meeting CalRecycle’s statewide solid waste recycling goal of 75 percent for 2020 as stated in Assembly Bill 341 (Chapter 476, Statutes of 2011). Based on information from CalRecycle and local enforcing agencies, 65 percent is an achievable number that furthers meeting California’s goal of 75 percent.

HCD adopted new regulations requiring recycling areas for multifamily projects of five or more dwelling units. These regulations required developers to provide readily accessible areas adequate in size to accommodate containers for the deposit, storage, and collection of non-hazardous materials (including organic waste) for recycling. This requirement assisted businesses that were required as of April 1, 2016, to meet the requirements of Assembly Bill 1826 (Chapter 727, Statutes of 2014).



State Housing Law Program staff photo: Debris bin for “lumber only”.

HCD adopted new regulations to require information on solar photovoltaic systems and EV chargers to be included in operation and maintenance manuals. At the time, Section 4.410.1 item 2(a) of the CALGreen required operation and maintenance instructions for equipment and appliances. Photovoltaic systems and EV chargers are systems that play an important role in many households in California, and their importance and use is increasing every day. HCD incorporated these two terms into the existing language to provide clarity to code users as to additional systems requiring operation and maintenance instructions.

HCD updated the reference to Clean Air Standards of the United States Environmental Protection Agency (EPA) applicable to woodstoves and pellet stoves. HCD also adopted a new requirement for woodstoves and pellet stoves to have a permanent label indicating they are certified to meet the emission limits. This requirement provided clarity to the code user and was consistent with the United States EPA's new source performance standards.

HCD updated the list of standards that can be used for verification of compliance for exterior grade composite wood products. This list now includes four standards from the Canadian Standards Association (CSA): CSA O121, CSA O151, CSA O153, and CSA O325.

HCD updated heating and air-conditioning system design references to the American National Standards Institute (ANSI) / Air Conditioning Contractors of America (ACCA) 2 Manual J, ANSI / ACCA 1 Manual D, and ANSI / ACCA 3 Manual S to the most recent versions approved by ANSI.

HCD adopted a new elective measure for hot water recirculation systems. The amount of potable water wasted while waiting for hot water to arrive to the point of use in a sink or other plumbing fixture depends upon numerous factors, including: the distance between the point of use and the water heater, the water heater temperature setting, the location of the fixtures, internal pipe diameter, effective length, pipe insulation, and user behavior. The United States Department of Energy estimated, at the time, that 3,600 to 12,000 gallons of water per year can be saved by the typical household (with four points of hot water use) if a hot water recirculation system is installed.

During the 2016 Intervening Code Adoption Cycle, HCD proposed new provisions and modified existing provisions to the 2016 CALGreen, which became effective July 1, 2018. HCD adopted new definitions related to reclaimed (recycled) water and EVs. The terms "hotel or motel" provided clarification for the application of EV spaces capable of supporting future installation of EV supply equipment in new hotels and motels. The term "reclaimed (recycled) water" was modified to correctly identify the state entity that establishes the criteria for recycled water.



State Housing Law Program staff photo: EV charger in a residential neighborhood.

HCD developed new requirements for EV charging in hotels and motels (new construction). The technical requirements for EV charging in hotels and motels were consistent with the requirements for nonresidential buildings.

HCD amended the maximum flow rate of showerheads from 2.0 gallons per minute (gpm) to 1.8 gpm to align with California Code of Regulations, title 20, Appliance Efficiency Regulations. This amendment was estimated to save 1.4 billion gallons of water for the first year the standard is in effect.

HCD developed new requirements for outdoor recycled water supply systems for all newly constructed residential developments, including hotels and motels, where disinfected tertiary recycled water was available from a municipal source to a construction site. These areas were required to be provided with both a potable water supply system and a recycled water supply system allowing the use of reclaimed (recycled) water for landscape irrigation systems. (See “Additional rulemaking activities related to the 2016 and 2019 CALGreen” section of this report for further information.)

HCD made editorial modifications to Section A4.304.4 (nonwater urinals and waterless toilets). In addition, HCD amended the Residential Occupancies Application Checklist to correspond with changes in Chapter 4 and Appendix A4.

Updates to 2019 CALGreen

During the 2018-2019 fiscal year, HCD updated CALGreen through the 2018 Triennial Code Adoption Cycle. This resulted in the 2019 CALGreen. This updating process was conducted in consultation with local agencies, environmental stakeholders, and interested individuals. The adopted 2019 CALGreen includes the updates listed below. See HCD's "2019 Report to the Legislature: Status of the California Green Building Standards Code" for additional details.

HCD adopted a new amendment in Section 102.3 Verification, clarifying that documentation is required with conformance for applicable green building measures. All projects are required to submit a completed Residential Occupancies Application Checklist that includes mandatory measures and any Tier 1 and Tier 2 measures, as applicable. Alternate methods of documentation are also acceptable.

HCD added new definitions for Accessory Dwelling Unit (ADU); Accessory Occupancies; Accessory Structures; and Junior Accessory Dwelling Unit (JADU) to clarify the meanings of these terms as used within the regulatory text of CALGreen.

HCD added two clarifying exceptions to Section 302.1. Exception 1 clarified that accessory structures serving residential buildings are required to comply with the mandatory or voluntary measures for residential buildings of CALGreen, as applicable. Exception 2 clarified that live/work units must comply with the CBC and not be considered mixed occupancies. Exception 2 also clarified that live/work units must comply with mandatory and voluntary measures of CALGreen, as applicable.

HCD added new sections and updated existing provisions related to EV charging. Many of the modifications related to EV charging requirements for multifamily dwellings were in coordination with CARB's. Some changes included an exception for ADUs and JADUs, without additional parking, from compliance with the requirements for EV-capable parking spaces; repeal of the threshold of "17 or more" dwelling units for CALGreen application to multifamily dwellings; and increase of the required number of EV-capable parking spaces from 3 percent to 10 percent of the total number of parking spaces for all multifamily dwelling units. HCD also clarified that new residential developments with common use areas (for parking) must provide at least one EV-capable parking space in the common use area and with the space available for use by all residents. HCD added a new exception clarifying that if the design and construction of EVCSs comply with the CBC, Chapter 11B, it is not subject to the EV space requirements in CALGreen.

HCD changed the water flow rate for metering faucets from 0.25 to 0.2 gallons per cycle for consistency with the requirements for commercial buildings. The same change was also proposed for the California Plumbing Code (CPC).

HCD modified the section addressing outdoor potable water use to apply to all landscape areas and to refer code users to DWR's website for documents related to outdoor water use. This generic reference accommodates changes to DWR's MWELO without changing CALGreen concurrently to avoid conflicts in details.

HCD updated references for heating and air-conditioning systems to the current versions of ANSI / ACCA Manuals J (Residential Load Calculations) and D (Residential Ducts Systems).

HCD modified the voluntary EV-capable parking space requirements for new multifamily dwellings by repealing the threshold of “17 or more” dwelling units and increasing the required number of EV-capable parking spaces from 5 percent to 15 percent of the total number of parking spaces for all multifamily dwelling units for Tier 1. The Tier 2 requirement was increased from 5 percent to 20 percent. HCD also added new voluntary Tier 1 and Tier 2 provisions for newly constructed hotels and motels.

HCD repealed a voluntary provision related to use of Minimum Efficiency Report Value (MERV) 6 filters since the 2019 California Energy Code mandates MERV 13 filters for residential occupancies which are more restrictive requirements. HCD also modified the requirements for construction filters by increasing the filtration of filters used during construction from MERV 6 to MERV 8.

HCD modified sections for prerequisite and elective measures for Tiers 1 and 2 to correspond with changes in Tier 1 and Tier 2 requirements. HCD also made changes in the Residential Occupancies Application Checklist to correspond with changes in Chapter 4 and Appendix A4.

All changes were effective January 1, 2020.

Additional rulemaking activities related to the 2016 and 2019 CALGreen

HCD repealed Section 4.305.1 Recycled Water Supply Systems from the 2016 and 2019 versions of CALGreen and the CPC through a “Change without Regulatory Effect” type of rulemaking effective July 1, 2018. This deletion is in response to a Peremptory Writ of Mandate issued by the Superior Court of California, County of Los Angeles, which declared the regulations invalid and ordered HCD to vacate them pursuant to Case No. BS171958—see [Information Bulletin 2019-02: Invalidated AB 2282 Recycled Water Building Standards](#) on HCD's website.

II. Introduction

The California Green Building Standards Code (CALGreen), the nation's first state-mandated green building code, has been in effect since January 1, 2011. CALGreen is written as a building standards code with both mandatory and voluntary measures. CALGreen provides for environmentally responsible and resource-efficient activities, from new building design and sustainable construction to full operational use for the built environment.

The California Department of Housing and Community Development (HCD) improves CALGreen by analyzing new technologies to complement current building practices that aid in conservation and reduce overall ecological impacts. Due to green building practices becoming more commonly used, technology constantly advancing, and public awareness of the benefits of sustainable building, HCD continuously evaluates and updates CALGreen.

Updates to CALGreen require detailed evaluation and analysis of alternatives and proposed changes, historical knowledge of the code, and information on new developments in sustainable building, related standards, and other codes. Changes in state law and regulations must also be evaluated. Sound rationale must accompany all proposed changes.

As green building practices become more routine, and with technological advances, the public becomes aware of the additional benefits of sustainable building. As a result, CALGreen must be continuously evaluated. This ensures its validity, cost effectiveness, and feasibility to improve both indoor and outdoor environments for current and future Californians and to meet the environmental and conservation goals of CALGreen.

CALGreen is an evolving code as new technologies and methods will continue to advance in the building industry, thus continued training is necessary to ensure that an up-to-date knowledge base is established and maintained within HCD and the industry.

III. HCD Accomplishments (2019–2020)

Amendment to the 2019 CALGreen; Approved by the California Building Standards Commission (CBSC) July 13, 2020. See Exhibit A for further details.

In the 2019–2020 fiscal year, the California Department of Housing and Community Development’s (HCD’s) State Housing Law (SHL) Program developed the 2019 California Green Building Standards Code (CALGreen) proposals for the 2019 Intervening Code Adoption Cycle. This was conducted in consultation with local agencies, environmental stakeholders, and interested individuals. As a result, the 2019 CALGreen will be updated and codified through a supplement effective July 1, 2021. Summaries for HCD’s proposed changes for the 2019 CALGreen supplement are listed below.

Chapter 2 Definitions.

- HCD revised the definition for “Accessory Dwelling Unit (ADU)” per Assembly Bill 881 (Chapter 659, Statutes of 2019), to reflect the changes made in Government Code Section 65852.2 (j)(1). HCD added a definition for “Submeter.” Per Senate Bill 7 (Chapter 623, Statutes of 2016), HCD was directed to develop building standards requiring the installation of water submeters in newly constructed multiunit residential structures; and for residential units in mixed-use residential/commercial structures.

Chapter 4 Residential Mandatory Measures.

Division 4.1 Planning and Design was modified as follows:

- Sections 4.106.4.2 New multifamily dwellings; 4.106.4.2.3 Single EV space required; 4.106.4.2.4 Multiple EV spaces required; and 4.106.4.3 New hotels and motels. Electric vehicle (EV) charging for new construction (one- and two-family homes and townhouses with attached garages, multifamily dwellings and hotels and motels, respectively). HCD proposed clarifying changes to existing provisions related to EV charging which included adding an exception to the requirement for a raceway when actual wiring is installed for use by an EV charger for one- and two-family homes and townhouses. Other changes recognize new statutory provisions in California Vehicle Code Section 22511.2, per Assembly Bill 1100 (Chapter 819, Statutes of 2019) requiring EV charging spaces to be considered as regular parking spaces for purposes of complying with local parking space requirements for multifamily dwellings and hotels and motels.

Division 4.3 Water Efficiency and Conservation was modified as follows:

- Section 4.303.1.4.5 Pre-rinse spray valves and Table H-2 Standards for Commercial Pre-rinse Spray Valves Manufactured on or after January 28, 2019. HCD proposed requirements for commercial pre-rinse spray valves for consistency with the California Code of Regulations, title 20 (Appliance Efficiency Regulations); and the California Plumbing Code (CPC). The California regulations also provided consistency with earlier adopted federal regulations for pre-rinse spray valves. HCD proposed to reprint the spray force and maximum flow rate table in CALGreen as printed in title 20 and in the Federal regulations. The proposal promotes water conservation.
- Section 4.303.2 Submeters for multifamily buildings and dwelling units in mixed-use residential/commercial buildings. HCD proposed a “pointer” to the CPC which includes new requirements for installation of water submeters in rented individual dwelling units in multifamily buildings and in residential portions of mixed-use buildings. The CPC provisions implement the directives in Senate Bill 7 (Chapter 623, Statutes of 2016).
- Section 4.303.3 Standards for plumbing fixtures and fittings. HCD renumbered this section to accommodate new section 4.303.2.

Division 4.4 Material Conservation and Resource Efficiency was modified as follows:

- Section 4.410.1 Operation and maintenance manual. HCD proposed addition of guidance information related to defensible space management to the manual. This was a proposed requirement in earlier versions of Senate Bill 190 but was not included in the final version of the bill (Chapter 404, Statutes of 2019).

Division 4.5 Environmental Quality was modified as follows:

- Section 4.504.3 Carpet systems; Section 4.504.3.1 Carpet cushion; and Section 4.504.4 Resilient flooring systems. HCD proposed updating these sections with the current version of the California Department of Public Health’s (CDPH) “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,” Version 1.2 (January 2017) (Emission testing method for California Specification 01350.) HCD also proposed to repeal the list of programs with which the carpet, carpet cushion, and resilient flooring needed to comply since these programs used the CDPH standard for their certifications.
- Section 4.504.5 Composite wood products. HCD proposed to delete references to dates in Table 4.504.5 since the current table no longer includes dates.

Appendix A4, Residential Voluntary Measures.

Division A4.1 Planning and Design was modified as follows:

- A4.106.5.3 Solar reflectance index alternative. HCD corrected the email contact information for the California Energy Commission's (CEC's) Energy Standards Hotline.
- A4.106.8.2.1 Technical requirements. Provides a complete reference to code users for the applicable notes to EV charging in new multifamily dwellings in Section A4.106.4.2.
- A4.106.10 Light pollution reduction and Table A4.106.10 MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG RATINGS). HCD proposed to repeal this voluntary section and table since the 2019 California Energy Code now has mandatory measures applicable to high-rise residential, hotel/motel buildings, and low-rise residential buildings, as specified.
- Section A4.504.2 Resilient flooring systems; and Section A4.504.3 Thermal insulation. HCD proposed updating these sections with the current version of the CDPH's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2 (January 2017) (Emission testing method for California Specification 01350.) HCD also proposed to repeal the list of programs with which the carpet, carpet cushion, and resilient flooring needed to comply since these programs used the CDPH standard for their certifications. For Section A4.504.2, HCD also proposed inclusion of CDPH's website and made an editorial correction referencing "at least 100 percent" to solely "100 percent" as related to the amount of resilient flooring required to comply with emission requirements.

In addition, HCD amended the Residential Occupancies Application Checklist to correspond with changes in Chapter 4 and Appendix A4. All changes are effective July 1, 2021.

IV. List of Activities

Code Development Work and Outreach during the 2019–2020 Fiscal Year

The California Department of Housing and Community Development (HCD) continued to evaluate and research possible updates to the 2019 California Green Building Standards Code (CALGreen) during the 2019 Intervening Code Adoption Cycle based on enacted legislation, executive orders, new technology, reducing conflict with other parts of the California Building Standards Code and other governmental regulations, completed studies, and stakeholder input. HCD also continued its efforts to provide educational outreach to stakeholders and assistance to code users throughout the state.

2019

- On July 9, program staff attended the California Energy Commission’s (CEC) meeting on Advanced Windows (Skinny Triple Pane).
- On July 18, program staff attended the Sustainable Energy Action Committee (SEAC) monthly meeting.
- On July 22, program staff attended the Office of the State Fire Marshal’s (SFM) Tall Wood Workgroup Meeting. The meeting focused on early adoption of tall wood building standards for the 2019 California Building, Fire, and Electrical Codes.
- On August 15, program staff attended the SEAC monthly meeting. The meeting focused on updates to the California Solar Permitting Guidebook, delayed adoption of the National Electrical Code, and Energy Storage Systems C-46 vs C-10 California contractors.
- On August 16, program staff attended the SFM’s Tall Wood Workgroup Meeting.
- On August 20, program staff attended the California Building Standards Commission (CBSC) CALGreen Workshop.
- On August 22, program staff attended a Utility-Sponsored Stakeholder Meeting on Multifamily Heating, Ventilation, and Air Conditioning (HVAC) and Envelope topics. Utility-Sponsored Stakeholder meetings are discussions of proposed adoptions of various proposals for future editions of the California Energy Code.
- On August 27, program staff attended the CBSC Plumbing Workshop.
- On August 28, program staff attended a meeting with the California Department of Food and Agriculture’s (CDFA) Division of Measurement Standards to discuss water submetering issues for implementation of Senate Bill 7 (Chapter 623, Statutes of 2016).
- On September 4, program staff attended a webinar on air sealing and insulation for existing homes.

- On September 5, program staff attended a Utility-Sponsored Stakeholder webinar on lighting topics.
- On September 5, program staff attended the SEAC task group meeting on updating the California Solar Permitting Guidebook.
- On September 9, program staff held a focus group meeting to introduce and discuss proposed changes to the 2019 CALGreen for the 2019 Intervening Code Adoption Cycle with stakeholders.
- On September 10, program staff attended a Utility-Sponsored Stakeholder webinar on grid integration topics.
- On September 13, program staff held a focus group meeting to discuss proposed changes to the 2019 California Plumbing Code (CPC), including water submetering proposals.
- On September 19, program staff attended the SEAC monthly meeting. Discussions included updates to the California Solar Permitting Guidebook, fire ratings for ground mounted detached carports and shade structures with solar, and removal and reinstallation of existing permitted solar systems.
- On September 20, program staff attended a meeting with CBSC and the Department of Water Resources (DWR) to discuss co-adoption of CPC amendment language.
- On September 23, program staff completed review of the “Guide to the 2019 CALGreen Residential” and returned proof comments to the International Code Council (ICC).
- On September 25, program staff presented a CALGreen PowerPoint to the Stockton Builders’ Exchange.
- On October 3, program staff attended a Utility-Sponsored Stakeholder Meeting on multifamily water heating issues.
- On October 4, program staff attended the SFM regulations workgroup meeting.
- On October 10, program staff attended a Utility-Sponsored Stakeholder Meeting on single-family HVAC issues.
- On October 17, program staff attended a Utility-Sponsored Stakeholder Meeting on nonresidential HVAC issues.
- On October 17, program staff attended the SEAC monthly meeting.
- On October 24, program staff attended a Utility-Sponsored Stakeholder Meeting on nonresidential building envelope issues.
- On November 6, program staff attended a webinar on the Model Water Efficient Landscape Ordinance (MWELO) and the new normal for California landscaping.
- On November 19, program staff attended the SEAC monthly meeting. Discussions included fire ratings for ground-mounted detached carports and shade structures.

- On November 19, program staff attended DWR’s Water Use Study Workshop.
- On November 21, program staff attended the SEAC monthly meeting.
- On December 3, program staff met with members of the Codes and Standards Enhancement (CASE; for energy standards) team to discuss an exception to submeters for drain water heat recovery systems in the CPC.
- On December 16, program staff attended a webinar on “Mass Timber Construction – What’s New in 2015/2018 for Mass Timber Construction.”
- On December 17, program staff attended the CEC’s webinar on “Landscape Irrigation Controller Discussion on Proposals for Water Efficiency.”
- On December 19, program staff attended the SEAC monthly meeting.

2020

- On January 13, program staff attended a webinar on Tall Mass Timber Construction presented by ICC.
- On January 13–14, program staff attended the Safety Challenges of the Future Building Environment meeting, convened by SFM, Underwriters Laboratories (UL), and International Association of Fire Fighters (IAFF). Discussions included energy storage systems, electrical vehicle storage systems, tall timber buildings, flammable refrigerants (freons; A1, A2L, A3), and cross-laminated timber.
- On January 14, program staff attended a CEC workshop on load management.
- On January 16, program staff attended the SEAC monthly meeting. Discussions included a report on the updates to the California Solar Permitting Guidebook, 2019 California Energy Code prescriptive photovoltaic system requirements, and fire ratings for ground-mounted detached carports and shade structures.
- On January 28, program staff attended an A2L Task Group convened by SFM. Discussions included UL standards 60335-2-40, model codes, greenhouse gases, A/C and A2L refrigerants, wildfire events, and A1 solutions.
- On January 29, program staff attended the Air-Conditioning, Heating, and Refrigeration Institute’s (AHRI’s) Refrigerant Task Force meeting discussing A1 and A2L refrigerants.
- On February 7, program staff presented updates to the 2019 CALGreen at Green Technology Training’s 2019 Updates to the CALGreen and California Energy Code.
- On February 20, program staff attended the SEAC monthly meeting.

- On February 27, program staff presented updates to CALGreen at a workshop for Orange County building officials. On March 3–4, program staff attended CBSC’s Plumbing, Electrical, Mechanical, and Energy Code Advisory Committee (CAC) meeting. Committee members provided advice to state agencies on their code change proposals for several codes, including CALGreen, and provided recommendations to CBSC. HCD’s proposals were largely approved as submitted.
- On April 8, program staff participated in a webinar hosted by the California Fuel Cell Partnership, "Hydrogen Stations Webinar: Update on Network Development Status in California".
- On April 14, program staff participated in the A2L Task Group Overview for the 2022 codes. The meeting included discussion of UL Standard 60335-2-40 (AKA UL 2-40), timeframes for activities, and due dates for committee recommendations.
- On April 16, program staff met with staff of the State Water Resources Control Board (SWRCB) related to water efficiency, conservation, and provisions in CALGreen.
- On May 5, program staff participated in a webinar hosted by ChargePoint, "Meet the New Fueling Network: How Businesses Are Shifting to Electric Mobility".
- On May 5, program staff attended the A2L Task Group convened by SFM. Discussions included the safety of using flammable refrigerants in residential applications, fire-fighter safety, and the transport of such refrigerants.
- On June 11, program staff attended the A2L Task Group convened by SFM. Discussions included fire testing, installation of A2L refrigerants and equipment, license requirements of contractors who install such equipment, safety hazards, and the longevity of safety sensors.

V. Planned Actions and Activities

During the 2020–2021 fiscal year and following months, the California Department of Housing and Community Development (HCD) anticipates the following actions and activities:

- Submit proposed amendments for updating the 2019 California Green Building Standards Code (CALGreen) to the 2022 CALGreen through a formal 2021 Triennial Code Adoption Cycle rulemaking process. These proposals will be based on enacted legislation, executive orders, new technology, coordination of regulations with other governmental agencies, completed studies, and stakeholder input. This will result in the 2022 CALGreen, with an effective date of January 1, 2023.
 - Present proposed express terms, initial statement of reasons, and notice of proposed action to the California Building Standards Commission (CBSC) for review in May 2021.
 - Attend and participate in CBSC’s Code Advisory Committee (CAC) meetings in July or August 2021 to discuss proposed changes for the 2022 CALGreen.
 - Initiate 45-day and 15-day (as needed) comment periods, which allow our stakeholders to submit comments regarding the proposed amendments, in September through November 2021.
 - Make any subsequent and necessary changes to proposed express terms; present the final package at the CBSC meeting in December 2021 or January 2022.
- Continue CALGreen outreach and education to the public, local enforcement agencies, industry professionals, and other stakeholders throughout the state.
- Consult with local enforcement agencies to verify implementation and enforcement, as well as the successes and challenges of CALGreen within communities as the economy continues to improve and construction of single and multifamily dwellings increases.
- Continue to analyze CALGreen for needed updates and research other sustainable building resources for feasible provisions to be included in CALGreen.
- Continue to update forms and worksheets associated with the compliance of CALGreen; including the Residential Occupancies Application Checklist, Residential Mandatory Measures Installation Certificate, Residential Mandatory Measures Checklist, Tier 1 Residential Measures Checklist, and Tier 2 Residential Measures Checklist.
- Update the CALGreen PowerPoint presentations to reflect all new code changes for the Triennial Code Adoption Cycle.

Exhibit A.
Summary of Rulemaking Activity
July 1, 2019 through June 30, 2020

Exhibit A
Summary of Rulemaking Activity

CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
REGARDING THE 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11

Rationale for Necessity.

The California Department of Housing and Community Development (HCD) proposes to make necessary changes to be included in the 2019 edition of the California Green Building Standards Code (CALGreen) as presented on the following pages, including any necessary amendments.

- (1) Continue reducing greenhouse gas (GHG) emissions from buildings.
- (2) Result in environmental benefits through reduced use of energy, water, and raw materials; improved public and building occupant health due to improved indoor air quality; and overall reduction in detrimental environmental impacts.
- (3) Continue the Administration’s directive to adopt green building standards for residential, commercial, and public building construction as part of the building code adoption process.

Proposed amendments in this rulemaking are also intended to provide further clarity, specificity and direction to the code user, and to implement and make specific existing state laws. Proposed amendments are a result of recommendations developed during the public participation period prior to submittal to the California Building Standards Commission (CBSC). The rationale for each proposed amendment by chapter and section is listed below.

Specific Proposed Regulatory Actions:

HCD proposes to amend the 2019 CALGreen. The rationale for each amendment is listed below.

1. HCD proposes to amend Chapter 2, Section 202, as follows:

SECTION 202
DEFINITIONS

ACCESSORY DWELLING UNIT

Rationale: HCD proposes to continue adoption of the above referenced section with amendment. HCD proposes to amend the existing definition to reflect recent statutory changes from Assembly Bill 881 (Chapter 659, Statutes of 2019) for Government Code section 65852.2 (j)(1). The proposed amendment has no fiscal impact pursuant to California Code of Regulations, title 1, section 100, “Changes Without Regulatory Effect.”

SUBMETER

Rationale: HCD proposes to adopt the above referenced section with new California amendment (definition). The proposed submeter definition is consistent with Senate Bill 7 (Chapter 623, Statutes of 2016) requiring submetering in multiunit structures. SB 7 directed HCD to develop building standards requiring the installation of water submeters in newly constructed multiunit residential structures; and for residential units in mixed-use residential/commercial structures. This code change clarifies the term “submeter” as used in section 4.303.2. The proposed amendment has no fiscal impact pursuant to California Code of Regulations, title 1, section 100, “Changes Without Regulatory Effect.”

2. HCD proposes to amend Chapter 4, Division 4.1, as follows:

SECTION 4.106 – SITE DEVELOPMENT

- Section 4.106.4.1** **New one- and two-family dwellings and townhouses with attached private garages.**
- Section 4.106.4.2** **New multifamily dwellings.**
- Section 4.106.4.2.3** **Single EV space required.**
- Section 4.106.4.2.4** **Multiple EV spaces required.**
- Section 4.106.4.3** **New hotels and motels.**

Rationale: HCD proposes to adopt an additional note to 4.106.4.2 and 4.106.4.3 referencing the California Vehicle Code regarding electric vehicle (EV) charging spaces considered as parking spaces. Assembly Bill 1100 (Chapter 819, Statutes of 2019) added section 22511.2 to the California Vehicle Code requiring that parking spaces served by EV supply equipment or a parking space designated as a future EV charging space be counted as at least one standard automobile parking space for compliance with applicable local parking space requirements. This section of the California Vehicle Code also provides that an accessible parking space with an access aisle served by EV supply equipment or with an aisle designated as a future EV charging space be counted as at least two standard automobile parking spaces.

HCD proposes to adopt an exception to 4.106.4.1, 4.106.4.2.3 and 4.106.4.2.4. HCD finds the current code does not make it clear whether or not the raceway is still required if a circuit is installed. The exception eliminates the requirement for a raceway when a 40-ampere 208/240-volt EV circuit is installed at the time of original construction. The raceway is available to ease the installation of a future circuit. If the circuit is installed at the time of original construction, there is no longer a need for the raceway. HCD anticipates no fiscal impact for the proposed building standards.

HCD’s proposals for counting future charging spaces towards local parking quota requirements and providing an exception to installation of a raceway is supported by the California Electric Transportation Coalition, CALSTART, ChargePoint, Electric Vehicle Charging Association and Tesla (Hanna Goldsmith *et al.* letter of September 13, 2019).

3. HCD proposes to amend Chapter 4, Division 4.3, as follows:

SECTION 4.303 – INDOOR WATER USE

Section 4.303.1.4.5 Pre-Rinse spray valves, FOR REFERENCE ONLY, and Table H-2 Standards for Commercial Pre-rinse Spray Valves Manufactured On or After January 28, 2019.

Rationale: HCD proposes to adopt the above referenced section and Reference note with Table to provide requirements for commercial pre-rinse spray valves consistent with the CCR, title 20 (Appliance Efficiency Regulations) and the California Plumbing Code (CPC). Water flow and spray force rates for pre-rinse valves were determined for the benefit of water conservation. In addition, FOR REFERENCE ONLY has been included to give users the reference to the specific sections in the Appliance Efficiency Regulations. The proposed amendment has no fiscal impact pursuant to California Code of Regulations, title 1, section 100, “Changes Without Regulatory Effect.” These changes provide consistency with federal regulations, Appliance Efficiency Regulations, and the CPC.

Section 4.303.2 Submeters for multifamily buildings and dwelling units in mixed-use residential/commercial buildings.

Rationale: HCD proposes to adopt the above referenced section which is a pointer to the California Plumbing Code requirements for installation of submeters for rented individual dwelling units in multifamily buildings and rented individual dwelling units in mixed-use buildings. SB 7 directed HCD to develop building standards requiring the installation of water submeters in newly constructed multiunit residential structures; and for residential units in mixed-use residential/commercial structures. The submeter requirement is currently an existing statutory (Water Code) requirement.

Section 4.303.3 Standards for plumbing fixtures and fittings.

Rationale: HCD proposes to renumber “Standards for plumbing fixtures and fittings” to 4.303.3 to allow for the new submeter section.

The proposed amendments to sections 4.303.2 and 4.303.3, have no fiscal impact pursuant to California Code of Regulations, title 1, section 100, “Changes Without Regulatory Effect.”

4. HCD proposes to amend Chapter 4, Division 4.4, as follows:

SECTION 4.410 – BUILDING MAINTENANCE AND OPERATION

Section 4.410.1 Operation and maintenance manual.

Rationale: HCD proposes to continue adoption of the above referenced section with amendment. HCD proposed to include as one of the required items in a residential structure's Operations and Maintenance Manual, reference to the California Department of Forestry and Fire Protection (CAL FIRE) guidance document on defensible space management. HCD and the Office of the State Fire Marshal (SFM) were directed in earlier versions of Senate Bill 190 (Chapter 404, Statutes of 2019) to include this information and even though the direction of HCD and SFM was removed in the final version, HCD believes that its helpful information that should be included in the manual. There is no fiscal impact for updating the Operations and Maintenance Manual.

5. HCD proposes to amend Chapter 4, Division 4.5, as follows:

SECTION 4.504 – POLLUTANT CONTROL

Section 4.504.3 Carpet systems.

Section 4.504.3.1 Carpet cushion.

Section 4.504.4 Resilient flooring systems.

Rationale: HCD proposes to continue adoption of the above referenced sections with amendments. These sections are updated to reflect the most up-to-date referenced standard for the California Department of Public Health's (CDPH) testing and evaluation of volatile organic chemical emissions. The January 2017 edition CDPH standard supersedes the February 2010 edition.

HCD proposes to repeal the list of programs with which the carpet, carpet cushion and resilient flooring need to comply. These sections will now state that carpet, carpet cushion and resilient flooring need to comply with CDPH's testing specification 01350. All the programs that were previously listed, tested the products to this specification, so there is no need to list these individual programs. HCD is proposing to add a note to these sections that will reference the CDPH's website which lists certification programs and testing labs. It will be much easier to reference a list on the CDPH website rather than updating references in actual code language.

HCD's proposal for updating the CDPH standard is supported by Underwriters Laboratories (UL) Environmental and Sustainability (Josh Jacobs letter of August 27, 2019); the California Air Resources Board (CARB) (Elizabeth Scheehle letter of October 14, 2019); and CDPH (Wenhao Chen letter of October 21, 2019).

The amendment requiring compliance solely with CDPH standards instead of listing various third-party certifiers or green programs is supported by CARB (Elizabeth Scheehle letter of October 14, 2019); and CDPH (Wenhao Chen letter of October 21, 2019).

HCD anticipates no fiscal impact for the proposed amendments to the above referenced sections since it corrects an outdated standard and make other editorial changes.

Section 4.504.5 Composite wood products.

Rationale: HCD proposes to continue adoption of the above reference section with amendment. The modification removes language which is no longer relevant. Table 4.504.5 no longer has any target dates to address for the specified materials as the dates were removed in the 2013 CALGreen. The modification to this section provides clarity to the code users. The proposed amendment has no fiscal impact pursuant to California Code of Regulations, title 1, section 100, "Changes Without Regulatory Effect."

6. HCD proposes to amend Appendix A4, Division A4.1, as follows:

SECTION A4.106 – SITE DEVELOPMENT

Section A4.106.5.3 Solar reflectance index alternative.

Rationale: HCD proposes to continue adoption of the above referenced section with amendment. The note references the contact information for the Energy Standards Hotline. The current email is no longer valid, therefore HCD proposed to amend with the correct email. The proposed amendment has no fiscal impact pursuant to California Code of Regulations, title 1, section 100, "Changes Without Regulatory Effect."

A4.106.8.2 New multifamily dwellings.

Section A4.106.8.2.1 Technical requirements.

Rationale: HCD proposes to continue adoption of the above referenced section with amendment. HCD proposes to provide reference to applicable notes to EV charging in new multifamily dwellings in Section A4.106.4.2. This provides a complete reference for the code user and incorporates proposed changes addressing the counting of EV charging spaces towards local parking space requirements. HCD anticipates no fiscal impact for the proposed building standards.

Section A4.106.10 Light pollution reduction.

Table A4.106.10 MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG RATINGS)

Rationale: HCD proposes to repeal the above referenced section A4.106.10 and Table A4.106.10. The section and table were originally proposed for adoption by HCD in the 2012 Triennial Code Adoption Cycle for the 2013 CALGreen. It was noted, at the time that, section A4.106.10 and Table A4.106.10, applicable to high-rise buildings, would be re-evaluated for duplication depending on changes in the California Energy Commission's (CEC) rulemaking and whether CALGreen provisions were incorporated into the California Energy Code as recommended at the CBSC's rulemaking workshop. Currently the provisions are in Appendix A4, voluntary measures.

The 2019 California Energy Code now has mandatory measures applicable to high-rise residential and hotel/motel buildings in section 130.2 that require compliance with the BUG ratings in accordance with the Illuminating Engineering Society standard (IES TM-15-11) for luminaires of 6,200 lumens or greater. In addition, the 2019 California Energy Code, section 150.0(k)(3) requires low-rise residential buildings with four or more dwelling units, as specified, to meet the outdoor lighting requirements in section 130.2 and other lighting sections. Therefore, it will be misleading and no longer necessary to keep the voluntary measures in CALGreen.

The proposed amendment has no fiscal impact pursuant to California Code of Regulations, title 1, section 100, "Changes Without Regulatory Effect," since any applicable lighting requirements are in the California Energy Code.

7. HCD proposes to amend Appendix A4, Division A4.5, as follows:

SECTION A4.504 – POLLUTANT CONTROL

Section A4.504.2 Resilient flooring systems.

Rationale: HCD proposes to continue adoption of the above referenced section with amendment. The section is updated to reflect the most up-to-date referenced standard for the CDPH's testing and evaluation of volatile organic chemical emissions. The January 2017 edition of the CDPH standard supersedes the February 2010 edition.

HCD proposes to repeal the list of programs with which the resilient flooring need to comply. This section will now state that resilient flooring needs to comply with CDPH's testing specification 01350. All the programs that were previously listed, tested the products to this specification, so there is no need to list individual programs. HCD is proposing to add a note to this section that will reference the CDPH's website which lists certification programs and testing labs. It will be much easier to reference a list on CDPH's website rather than updating references in actual code language.

HCD proposes to amend Tier 2 by removing "At least". The sentence is grammatically incorrect as it is.

Section A4.504.3 Thermal insulation.

Rationale: HCD proposes to continue adoption of the above referenced section with amendment. The section is updated to reflect the most up-to-date referenced standard for CDPH's testing and evaluation of volatile organic chemical emissions. The January 2017 edition of the CDPH standard supersedes the February 2010 edition.

HCD proposes to repeal the list of programs which the thermal insulation needs to comply with. This section will now state that thermal insulation needs to comply with CDPH's testing specification 01350. All the programs that were previously listed, tested the products to this specification, so there is no need to list individual programs. HCD is proposing to add a note to this section that will reference the CDPH's website which lists certification programs and testing labs. It will be much easier to reference a list on CDPH's website rather than updating references in actual code language.

The proposed amendments have no fiscal impact pursuant to California Code of Regulations, title 1, section 100, "Changes Without Regulatory Effect," the proposed amendments correct an outdated standard and make other editorial changes. See Item 5 for stakeholder comments.

HCD proposes to amend Appendix A4, Division A4.602, as follows:

SECTION A4.602 – RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST

Section A4.602 Residential Occupancies Application Checklist.

Rationale: HCD proposes to continue adoption of the above referenced section with amendment. HCD proposes to amend the Residential Occupancies Application Checklist to align with the proposed changes made in the code. There is no fiscal impact for the amendments made to the checklist.

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).

CDPH, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350.)

AB 1100 (Chapter 819, Statutes of 2019)—Electric vehicles: parking requirements.

SB 7 (Chapter 623, Statutes of 2016)—Housing: water meters: multiunit structures

SB 190 (Chapter 404, Statutes of 2019)—Fire safety: building standards: defensible space program.

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, which contain prescriptive standards. However, there are no model codes addressing green building standards specific to California. CALGreen ensures the standards provide the following: explicit guidance for certain mandated requirements; consistent application and enforcement of building standards while also establishing clear design parameters; and ensures 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.

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 found that there were no reasonable alternatives to consider.

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.

None. HCD is amending the 2019 CALGreen with amendments to incorporate statutory requirements and to ensure consistency with other building standards.

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 have no significant adverse economic impact on California business enterprises and individuals, including the ability of California businesses to compete with businesses in other states.

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)

The 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.
These regulations will not affect the creation, or cause the elimination, of jobs within the State of California.
- B.** The creation of new businesses or the elimination of existing businesses within the State of California.
These regulations will not affect the creation or the elimination of new and existing businesses within the State of California.

- C. The expansion of businesses currently doing business within the State of California.
These regulations will not affect the expansion of businesses currently doing business within the State of California.
- D. The benefits of the regulation to the health and welfare of California residents, worker safety, and the state's environment.
These regulations will update and improve minimum existing building standards, which will provide increased protection of public health and safety, worker safety and the environment.

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.

There is no additional cost of compliance for the proposed California amendments. See discussions in Rationale of individual sections for benefits and any assumptions.

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 do not conflict with federal regulations. The State of California has preemptive authority to adopt more restrictive mandatory standards for the appliances addressed in these regulations. The pre-rinse spray valve regulations provide consistency with 10 Code of Federal Regulations part 431(O), and the CCR, title 20, (Appliance Efficiency Regulations.)