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STATE OF CALIFORNIA

STATE ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION

*IN THE MATTER OF:*

***2019 TITLE 24, PART 11 "CALGREEN"  
CALIFORNIA GREEN BUILDING STANDARDS  
STANDARDS RULEMAKING PROCEEDING)  
CALIFORNIA CODE OF REGULATIONS, TITLE 24,  
PART 11, APPENDICES 4.2 AND 5.2***

DOCKET NO. 17-BSTD-03

**RESOLUTION ADOPTING AMENDMENTS TO THE VOLUNTARY ENERGY  
PROVISIONS OF THE CALIFORNIA GREEN BUILDING STANDARDS CODE**

**I. INTRODUCTION**

The California Energy Commission has, as directed by Section 25402 of the California Public Resources Code, developed and undertaken a proceeding to adopt revisions to the voluntary measures more stringent than its Building Energy Efficiency Standards.

These voluntary standards apply to residential, nonresidential, high-rise residential, and hotel and motel buildings. The standards are in Part 11 (also known as CALGreen) of Title 24 of the California Code of Regulations. The standards are called the *2019 California Green Building Standards* (2019 CALGreen), as posted on September 17, 2018, for a 15-day review, and as further revised by the errata set forth in Appendix A of this Resolution. The 2019 Standards will go into effect on January 1, 2020, following approval by the California Building Standards Commission.

The Energy Commission additionally and subsequently adopts the proposed additions and amendments to its voluntary energy efficiency standards for buildings.

The Energy Commission takes this action under the authority given by Public Resources Code Sections 25218, Subdivision (e), 25402, 25402.1, 25402.4, 25402.5, 25402.5.4, 25402.8, 25910, , 25943, and Health and Safety Code sections 18930.5 and 18941.5,.to implement, interpret and make specific Sections 25402, Subdivisions (a)-

(c), 25402.1, 25402.4, 25402.5, 25402.5.4, 25402.8, 25910, 25943, and Health and Safety Code sections 18930.5 and 18941.5.

## II. HISTORY OF THE PROCEEDING

The development of the 2019 voluntary standards in CALGreen was included in the larger overall development process for updates to the 2019 (mandatory) Standards. Those standards in Parts 1 and 6 are called the "2019 Building Energy Efficiency Standards" (or 2019 Standards), and were adopted by the Energy Commission at a May 9, 2018 public hearing.

To develop the 2019 voluntary Standards, the Energy Commission conducted an open, transparent, and extensive public process. Between March 2017 and today, the Commission has held 14 workshops and 2 hearings, in addition to 10 webinars and 9 in-person meetings hosted by Codes and Standards Enhancement (CASE) program organizers. Development began with a presentation of the overall plan and schedule for this rulemaking, and the fundamental building blocks that would be used in the Standards. Subsequent workshops addressed various aspects of the 2019 voluntary Standards in detail. During this process, stakeholder groups assessed, analyzed, discussed, and helped to improve numerous versions of the proposed Standards, and the Commission staff considered more than 105 formal public comments submitted to the Commission dockets.

On November 22, 2017, the formal rulemaking phase was initiated when the Commission (1) filed with the California Building Standards Commission (CBSC) and the Office of Administrative Law (OAL), and (2) published, the following:

- A Notice of Proposed Action (NOPA), which described the proceeding, summarized the proposed Standards, and explained how interested persons could participate;
- Economic and Fiscal Analysis (Form 399);
- An Initial Statement of Reasons (ISOR), which presented the rationales for the Standards;
- Proposed Express Terms (45-day language) of the 2019 Standards, and;

The Commission also provided the NOPA to:

- every contact on the Energy Commission's mailing lists for: *The Blueprint* (an Energy Code newsletter), appliance efficiency standards, nonresidential and residential building energy efficiency standards, city and county building officials, and county clerks,
- the Commission's *Efficiency* and *Building Standards* electronic mail list-servers, and
- every person who had requested notice of such matters.

The NOPA, the ISOR and the 45-day and 15-day language (discussed below) were also timely posted on the Energy Commission's website.<sup>1</sup>

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<sup>1</sup> See <http://www.energy.ca.gov/title24/2019standards/rulemaking/documents/>.

On February 5 and 6, 2018, the lead commissioner for energy efficiency of the Energy Commission held a public hearing, pursuant to Government Code Section 11346.8 and Public Resources Code Section 25402, to accept both oral and written comments on the 2019 voluntary Standards.

As stated in the NOPA, page 3, the Commission welcomed comments on any of the proposed provisions and, as we have noted above, many were received. Accordingly, the Commission on September 17, 2018, published proposed changes to the 45-day language (and identified additional documents beyond those identified in the NOPA upon which it is relying in adopting the 2019 voluntary Standards). These changes are called “15-day language” because they are sufficiently related to the 45-day language and thus only subject to an abbreviated 15-day notice requirement. The 15-day language was made available for public comment for 15 days, through October 2, 2018.<sup>2</sup> The public notice of the 15-day language also stated that the Commission would consider adopting the proposed regulations and negative declaration at a public hearing during its business meeting on October 3, 2018.<sup>3</sup>

### **III. FINDINGS AND CONCLUSIONS**

Several different statutory schemes govern the Commission’s adoption of building standards: the Warren-Alquist State Energy Resources Conservation and Development Act,<sup>4</sup> the administrative rulemaking provisions of the Administrative Procedure Act,<sup>5</sup> and the Building Standards Law.<sup>6</sup> Pursuant to these statutes, the Commission has reviewed the entire record of this proceeding, including public comments, reports and other documents, transcripts of public events, and all other materials that have been filed in this proceeding (Docket No. 17-BSTD-03). Based on that record, the Commission makes the following findings and conclusions.

#### **A. The California Environmental Quality Act, Public Resources Code Section 21000 et seq.**

CEQA requires that state agencies consider the environmental impact of their discretionary decisions, including the adoption of regulations. An activity is not subject to CEQA if, (1) the activity is not a “project” as defined in section 15378 of the regulations. (Cal. Code Regs., tit. 14, § 15060(c)), or (2) the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment. (Cal. Code Regs., tit. 14, § 15061(b)(3).)

After considering the entire record, including the Notice of Exemption<sup>7</sup>, filed with the 2019 Standards, the Commission finds the regulations are voluntary, categorize existing energy efficiency features into a new elective, remove requirements made redundant by adopted changes in Part 6, and improve the readability of the CALGreen standards. The language changes would not result in a direct or indirect

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<sup>2</sup> Gov. Code § 11346.8; Cal. Code Regs., Title 1, § 42.

<sup>3</sup> See <https://efiling.energy.ca.gov/getdocument.aspx?tn=224649>

<sup>4</sup> Pub. Resources Code, § 25000 et seq.

<sup>5</sup> Gov. Code, § 11340 et seq.

<sup>6</sup> Health & Safety Code, § 18901 et seq.

<sup>7</sup> <https://efiling.energy.ca.gov/getdocument.aspx?tn=222679>

physical change to the environment because they are voluntary and either definitional in nature, procedural, or clarifications of existing voluntary standards.

The Notice of Exemption is appropriate because the rulemaking activity is not a project under the CEQA Guidelines. (Cal. Code Regs., tit. 14, § 15378(b)(5).) In this case, the regulations would not result in any impact on the environment. In addition, because it can be seen with certainty that there is no possibility that the CALGreen regulation changes would have a significant effect on the environment, and nothing in the record suggests otherwise, adoption of the CALGreen regulations would not be subject to CEQA under the *common sense* exemption of section 15061(b)(3).

## **B. The Warren-Alquist Act**

### **1. Public Resources Code Sections 25402, subdivisions (a)-(b)**

The 2019 Standards adopted May 9, 2018 satisfy the requirements of Public Resources Code Section 25402, Subdivisions (a) and (b). Those provisions require the Commission to adopt building design and construction standards that increase the efficiency in the use of energy and water for new residential and new nonresidential buildings, and energy and water conservation design standards. By law, these standards must be “cost effective when taken in their entirety, and when amortized over the economic life of the structure when compared with historic practice.”

The adopted 2019 Standards fulfill these directives. They increase the efficiency of and conserve the use of energy and water. Moreover, they are cost-effective.

Buildings constructed pursuant to the 2019 Standards are projected to:

- save \$2.17 billion in energy over a 30-year life;
- save 246 million gallons of water per year, and;
- reduce growth in statewide greenhouse gas emissions by 230 thousand metric tons carbon dioxide equivalent (CO<sub>2</sub>e) per year.

To further illustrate the anticipated savings, in the residential context, the improvement in energy efficiency and reduction in demand for grid electricity due to on-site photovoltaics (PV) will provide a 2:1 return on a typical homeowner’s investment. If factored into a 30-year mortgage, the standards will add approximately \$40 per month to the cost of the average home (assuming call costs are first costs and the full costs are financed at 5 percent for 30 years), but will save approximately \$80 on monthly heating, cooling, and lighting bills (net present savings, nominal savings will be higher). On average, the 2019 Standards will increase the cost of constructing a new residential building by \$9,500 but will return more than \$19,000 in energy savings over 30 years.

Therefore, we found and concluded that the 2019 Standards are cost-effective.

The Energy Provisions of CALGreen adopted today are part of a voluntary standard that accomplishes the goals of Section 25402. However, as voluntary measures, they are not required to satisfy the requirements of subdivisions (a) and (b) for

mandatory regulations.

The 2019 Energy Provisions of CALGreen are extensions of aspects of the 2019 Standards. They are voluntary and do not include any standards which alter the previous findings for the 2019 Standards. Although voluntary in nature, the 2019 Energy Provisions of CALGreen have the potential to increase the efficiency of and conserve the use of energy by reducing the energy budget otherwise allotted to a building in the 2019 Standards. If a local jurisdiction wishes to require these voluntary standards via local ordinance, it must establish cost effectiveness and submit its proposed local ordinance to the Energy Commission for approval.<sup>8</sup>

## 2. Public Resources Code Section 25402.8.

Section 25402.8 of the Warren-Alquist Act directs the Commission, when adopting new building energy conservation standards to “include in its deliberations the impact that those standards would have on indoor air pollution problems.”

The Commission must take into account both the indoor air quality concerns embodied in Section 25402.8 and the mandate to achieve cost-effective energy conservation in Sections 25402 Subdivisions (a) and (b). This alone requires a delicate balancing of issues and concerns because, among other reasons, by improving indoor air quality through increased ventilation, energy use will increase, which means that the adverse health impacts of outdoor air pollution may also increase.

Staff considered the impact that the proposed changes to the regulations would have on indoor air quality and found that neither the residential nor the nonresidential provisions would negatively impact indoor air quality. The 2019 Standards contain updates to ventilation and air filtration requirements that are expected to improve air quality, and that were developed in coordination with the California Air Resources Board. Staff therefore finds that both the current and the adopted 2019 regulations:

- ensure adequate outdoor air ventilation;
- preserve and improve indoor air quality;
- require that the minimum outdoor air quantities be provided during regular and pre-occupancy periods; and
- require documentation showing that ventilation systems provide the minimum-required outdoor air quantities.

The Commission previously found and concluded that the 2019 Standards contain provisions that are reasonably necessary to carry out the mandate of Section 25402.8, and that they strike an appropriate balance between the requirements of this section and the energy-savings and cost-effectiveness mandates of Sections 25402, subdivisions (a) and (b).

The 2019 Energy Provisions of CALGreen are voluntary, provide more of the same energy and environmental benefits of the 2019 Standards, and do not include any standards which alter the previous findings for the 2019 Standards.

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<sup>8</sup> Pub. Res. Code § 25402.1, subdiv. (h)(2); Cal. Code Regs., tit. 24, part 6, § 10-106.

## **C. The Administrative Procedure Act**

The California Administrative Procedure Act (APA) requires all state agencies to take certain steps and assess several matters when adopting regulations. Many of these matters, analyses and findings are required to be addressed in the ISOR prepared as part of the NOPA or in the Final Statement of Reasons (FSOR) that is required to be prepared after the regulations are adopted. In support of those documents, the Commission made the following findings and determinations in adopting the 2019 Standards.

### **1. Reports Required of Businesses, Government Code Section 11346.3, subdivision (d)**

In addition to the economic analysis required by Section 11346.3 of the APA, discussed further below, subdivision (d) of this statute mandates that agencies that require the preparation of reports by businesses find that such reports are necessary to protect the health, safety or welfare of the people of California.

The 2019 Standards require completion of certain reports, called compliance documentation, regarding the efficiency measures incorporated into buildings. The reports collect the information necessary for local building officials, building owners and occupants, and contractors to ensure that the measures are properly installed and operating correctly, so that the anticipated energy, environmental and cost benefits will actually be achieved. Accordingly, we find and conclude that it is necessary that these reporting requirements apply to businesses, in order to protect the health, safety and welfare of the people of California, as required by Government Code Section 11346.3, Subdivision (d).

The 2019 Energy Provisions of CALGreen are extensions of aspects of the 2019 Standards and do not include any standards which require completion of any additional compliance documentation beyond what is required by the 2019 Standards, nor do they impose any other requirements for the preparation of reports by businesses.

### **2. Public Participation, Government Code Section 11346.45**

State agencies must “involve parties who would be subject to the proposed regulations in public discussions regarding those proposed regulations, when the proposed regulations involve complex proposals or a large number of proposals that cannot easily be reviewed during the comment period.” As described above, the Energy Commission conducted extensive outreach with industry and other stakeholders, over the course of the past 18 months on the structure and contents of the regulations. We therefore find and conclude that the Energy Commission has complied with Government Code Section 11346.45.

On August 22, 2018, the Energy Commission presented information on the proposed 2019 Energy Provisions of CALGreen to the California Building Standards Commission Green Code Advisory Committee's publicly noticed meeting. This further extended the Energy Commission's outreach activities and encompassed additional stakeholders who were participating in the California Building Standards Commission's separate building standards rulemaking activities.

3. Economic Impact Assessment, Government Code Sections 11346.3, 11346.5 and 11346.9

Sections 11346.3, 11346.5, and 11346.9 of the APA require state agencies to assess various potential economic and fiscal impacts of proposed regulations and potential alternatives. Briefly stated, the Commission finds that the 2019 Standards:

- a) Will not result in a significant statewide adverse impact directly affecting business (including small businesses), including the ability of California businesses to compete with businesses in other states, and job creation;
- b) Will not have significant impacts on housing costs;
- c) Do not have alternatives that would be more effective in implementing the policies and provisions of the Warren-Alquist Act without increasing burdens, or that would be as effective and less burdensome to affected private persons in implementing the policies and provisions; and
- d) Will not impose any direct costs or direct or indirect requirements on state agencies, local agencies, or school districts, including but not limited to costs that are required to be reimbursed under Part 7 (commencing with Section 17500) of the Government Code.

For complete details of the Energy Commission's fiscal and economic analysis of the 2019 Standards, see the Economic and Fiscal Analysis (Form 399), previously published with the NOPA.

The 2019 Energy Provisions of CALGreen are voluntary and do not include any standards which alter the previous finding for the 2019 Standards. Although voluntary in nature, the 2019 Energy Provisions of CALGreen provide a framework for drafting and adopting local ordinances and thus have the potential to increase the efficiency of and conserve the use of energy by reducing the energy budget otherwise allotted to a building in the 2019 Standards. If a local jurisdiction wishes to require these voluntary standards via local ordinance, it must establish cost-effectiveness and submit its proposed local ordinance along with its cost-effectiveness analysis to the Energy Commission for approval.

**D. The State Building Standards Law, Health & Safety Code Section 18930**

The 2019 Standards and the voluntary Energy Provisions of CALGreen must be submitted to the California Building Standards Commission (CBSC) for approval, and are required, by Health and Safety Code Section 18930, subdivision (a), to be accompanied by an analysis which will, to the satisfaction of the CBSC, justify their approval. For the reasons described below, we find, determine, and conclude that the voluntary Energy Provisions of CALGreen comply with each one of the applicable criteria.

**1) The proposed building standards do not conflict with, overlap, or duplicate other building standards.**

There is no overlap or duplication with other regulations because the Energy Commission is the only state agency authorized to set efficiency standards for buildings, and for



the same reason there should be no conflict with other building standards (i.e., no situation in which it is impossible to comply with both an Energy Commission standard and another building standard). For example, considering the lighting energy efficiency standards and the electrical code:

- There are no conflicts between the Energy Code and the Electrical Code on lighting requirements. The Electrical Code requires illumination to be provided for all working spaces, whereas the Energy Code has requirements on the allowable maximum amount of lighting power to be used for the building space and also how the lighting system shall be controlled and switched.
- There are no conflicts between the Energy Code and Electrical Code on receptacle requirements. The Electrical Code contains requirement of the whereabouts of receptacles whereas the Energy Code contains the requirements for controlled receptacles for spaces including private offices, open office areas, reception lobbies, conference rooms, kitchenette in office spaces, copy rooms, hotel and motel guest rooms.
- There are no conflicts between the Energy Code and Building Code on egress lighting requirements. Other parts of the Building Code contain means of egress requirements and the Energy Code contains express allowance for means of egress for lighting area controls and shut-OFF controls.

Additionally, Article 1, Section 10-101(b), of the Standards explicitly states that nothing in them lessens any necessary qualifications or responsibilities of licensed or registered building professionals or other designers or builders, or the duties of enforcement agencies that exist under state or local law.

Finally, the California Energy Commission is considering the adoption of deletions, additions, and amendments solely to the voluntary provisions in Appendices 4 and 5 of Part 11. These voluntary provisions in and of themselves do not have the force and effect of law. Local jurisdictions adopting these voluntary provisions as mandatory local energy efficiency standards shall submit the required application and receive the required approval of the California Energy Commission in compliance with Title 24, Part 1, Section 10-106. Prior to enforcement, local jurisdictions adopting these or other provisions as mandatory local energy efficiency standards shall submit a required application package and receive the required approval of the California Energy Commission in compliance with Title 24, Part 1, Section 10-106.

**2) The proposed building standards are within the parameters established by enabling legislation and are not expressly within the exclusive jurisdiction of another agency.**

The California Energy Commission has statutory authority under Public Resources Code Sections 25213, 25402, 25402.1, 25402.4, 25402.5, 25402.8, and 25910 to promulgate and update energy and water efficiency standards for residential and nonresidential buildings, including both newly constructed buildings and additions and alterations to existing buildings. The Energy Commission is the only state agency with the authority to set efficiency standards for buildings. The Building

Standards Law allows agencies in addition to the Building Standards Commission to adopt CALGreen provisions. (Health and Safety Code, §§ 18930.5, 18941.5)

### **3) The public interest requires the adoption of the building standards.**

The Building Standards Law states that the “public interest includes, but is not limited to, health and safety, resource efficiency, fire safety, seismic safety, building and building system performance, and consistency with environmental, public health, and accessibility statutes and regulations.” (Health & Safety Code, § 18930, Subdivision. (a)(3).) The 2019 CALGreen voluntary efficiency provisions are in the public interest, increase resource efficiency, building and building system performance, and are consistent with environmental, public health, and accessibility statutes and regulations.

When the legislature created the Energy Commission over forty years ago, it stated that the California economy, and indeed the well-being of all California citizens, depends on an adequate, reasonably priced, and environmentally-sound supply of energy.<sup>9</sup> The legislature also stated that growth in electricity demand has strained the reliability of California’s electricity system, created potential environmental stresses, and contributed to a substantial rise in electricity prices.<sup>10</sup> Finally, the legislature recognized that improvements in energy efficiency are among the most cost-effective and environmentally-friendly methods to help bring demand and supply into balance.<sup>11</sup>

These facts remain as true today as they were then, and they make clear that adoption of the 2019 CALGreen voluntary efficiency provisions is required for the public interest.

The 2019 CALGreen voluntary efficiency provisions will continue to improve upon the existing mandatory Standards and continue to address policy directives that influenced the past Standards updates. These policy directives include:

- The 2003 Energy Action Plan (EAP) which established a “loading order” of energy resources and strategies to address the State’s growing energy demands (through conservation and energy efficiency to minimize energy demand first, followed by electricity generation from renewable energy resources and distributed generation).<sup>12</sup>
- The Climate Action Initiative (Executive Order S-3-05, June 2005) which sets greenhouse gas (GHG) emission reduction targets for California, as follows: by 2020, reduce GHG emissions to 1990 levels, and by 2050, reduce GHG emissions to 80 percent below 1990 levels.
- The Global Warming Solutions Act of 2006, (Assembly Bill 32, Núñez, Stats. 2006, Chapter 488) codified the 2020 GHG emission reduction target into law. AB 32 requires the Air Resources Board (ARB) to report and verify statewide

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<sup>9</sup> Pub. Resources Code, § 25001; see also § 25300, subd. (a).

<sup>10</sup> See Public Resources Code, § 25002.

<sup>11</sup> See Public Resources Code, §§ 25001, subds. (a) & (b), 25007.

<sup>12</sup> [http://www.energy.ca.gov/energy\\_action\\_plan/2003-05-08\\_ACTION\\_PLAN.PDF](http://www.energy.ca.gov/energy_action_plan/2003-05-08_ACTION_PLAN.PDF).

greenhouse gas emissions. The Act further requires that the ARB, in coordination with other state agencies, achieve the maximum technologically feasible and cost-effective GHG emission reductions, setting the stage for the State's transition to a sustainable, clean-energy future. Improving the energy efficiency of buildings is the single most important activity to reduce greenhouse gas emissions in the electricity and natural gas sectors. Thus expanding and strengthening building standards is a key recommendation of the Climate Change Proposed Scoping Plan.<sup>13</sup> Proposed strategies include zero net energy buildings, more stringent building codes and appliance-efficiency standards, broader standards for new types of appliances and for water efficiency, improved compliance and enforcement of existing standards, and voluntary efficiency and green building targets beyond mandatory codes. In 2016, Senate Bill 32, Chapter 249, codified the goal to reduce the State's greenhouse gas emissions to 40 percent below 1990 levels by 2030.<sup>14</sup>

- The Energy Commission's 2011 Integrated Energy Policy Report (IEPR) includes many GHG emission reduction and energy-efficiency strategy recommendations.<sup>15</sup> Energy efficiency is identified as the first strategy for accomplishing significant GHG reduction targets because it is a fast and inexpensive solution. The 2011 IEPR reiterated the statewide goal that new building standards achieve zero net energy levels by 2020 for residences and by 2030 for commercial buildings.
- The California Public Utility Commission's (CPUC) California Long Term Energy Efficiency Strategic Plan, endorses the Energy Commission's zero net energy goals for all newly-constructed homes by 2020, and 2030 for all newly-constructed commercial buildings.<sup>16</sup> The Investor Owned Utilities (IOUs) authored the plan under the direction of the CPUC, and these utilities are now developing public goods incentive programs that support the implementation of this strategic plan.
- Governor Brown's Clean Energy Jobs Plan establishes the priorities of his administration to aggressively pursue clean energy jobs in California through renewable energy and energy efficiency, extending the success of programs established in his first administration and the ensuing 30 years, which have triggered innovation and creativity in the market. The Clean Energy Jobs Plan calls for the development of 12,000 megawatts of localized, renewable electric generation by 2020, new energy efficiency standards for buildings to achieve dramatic energy savings, creating a path for making newly constructed residential and commercial buildings "zero net energy" through high levels of energy efficiency combined with onsite renewable electric generation, stronger appliance standards for lighting, consumer electronics and other products, in conjunction with increased public education and enforcement efforts so the gains promised by the efficiency standards are in fact realized.<sup>17</sup>

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<sup>13</sup> [http://www.arb.ca.gov/cc/scopingplan/document/adopted\\_scoping\\_plan.pdf](http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf).

<sup>14</sup> See Health and Safety Code § 38566

<sup>15</sup> <http://www.energy.ca.gov/2011publications/CEC-100-2011-001/CEC-100-2011-001-CMF.pdf>.

<sup>16</sup> <http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=5303>

<sup>17</sup> [http://gov.ca.gov/docs/Clean\\_Energy\\_Plan.pdf](http://gov.ca.gov/docs/Clean_Energy_Plan.pdf).

- Executive Order B-18-12, April 25, 2012<sup>18</sup> and its accompanying Green Building Action Plan<sup>19</sup> which set more stringent energy efficiency, renewable on-site generation, and GHG emission and water consumption reduction requirements for state agencies and state buildings as follows:
  - State agencies, departments, and other entities under direct executive authority must take actions to reduce entity-wide GHG emissions by at least 10 percent by 2015 and 20 percent by 2020, as measured against a 2010 baseline.
  - New state buildings and major renovations beginning design after 2025 must be constructed as Zero Net Energy facilities with an interim target for 50 percent of new facilities beginning design after 2020 to be Zero Net Energy.
  - State agencies shall take measures toward achieving Zero Net Energy for 50 percent of the square footage of existing state-owned building area by 2025.
  - State agencies must continue taking measures to reduce grid-based energy purchases for State-owned buildings by at least 20 percent by 2018, as compared to a 2003 baseline, and reduce other non-building, grid-based retail energy purchases by 20 percent by 2018, as compared to a 2003 baseline.
  - Proposed new or major renovation of state buildings larger than 10,000 square feet must use clean, on-site power generation, such as solar PV, solar thermal and wind power generation, and clean back-up power supplies, if economically feasible.
  - New and existing state buildings must incorporate building commissioning to facilitate improved and efficient building operation.
  - State agencies must identify and pursue opportunities to provide electric vehicle charging stations, and accommodate future charging infrastructure demand, at employee parking facilities in new and existing buildings.
  - State agencies must reduce overall water use at the facilities they operate by 10 percent by 2015 and by 20 percent by 2020, as measured against a 2010 baseline.
- The Clean Energy and Pollution Reduction Act of 2016 (Senate Bill 350, Chapter 547, October 7, 2015) directed the Energy Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030. The bill also required that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030.<sup>20</sup>

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<sup>18</sup> <http://gov.ca.gov/news.php?id=17508>.

<sup>19</sup> [http://gov.ca.gov/docs/Green\\_Building\\_Action\\_Plan\\_B.18.12.pdf](http://gov.ca.gov/docs/Green_Building_Action_Plan_B.18.12.pdf).

<sup>20</sup> See Public Resources Code § 25310 and § 25943.

All of these enactments and policy statements demonstrate that the energy efficiency advances that will be produced by the 2019 CALGreen voluntary efficiency provisions are crucial to the state's energy reliability and economic and environmental health.

**4) The proposed building standards are not unreasonable, arbitrary, unfair, or capricious, in whole or in part.**

The 2019 CALGreen voluntary efficiency provisions are not unreasonable, arbitrary, unfair, or capricious, in whole or in part. As discussed in section 3 of this Analysis, the Building Energy Efficiency Standards respond to the mandates of the Warren-Alquist Act, the Global Warming Solutions Act of 2006, California's Energy Action Plan 2008 Update, the California Energy Efficiency Long-Term Strategic Plan, the 2011 IEPR, the California's Clean Energy Futures Initiative, Governor Brown's Clean Energy Jobs Plan and the Clean Energy and Pollution Reduction Act of 2016.

The express terms of the 2019 CALGreen voluntary efficiency provisions and the record of the rulemaking proceeding through which the language is adopted shows that this criterion is met.

**5) The cost to the public is reasonable, based on the overall benefit to be derived from the building standards.**

The Energy Commission is considering the adoption of deletions, additions, and amendments solely to the voluntary provisions in Appendices A4 and A5 of Part 11. These voluntary provisions in and of themselves do not have the force and effect of law. Local jurisdictions adopting these voluntary provisions as mandatory local energy efficiency standards are required to submit an application and receive approval of the California Energy Commission prior to enforcement. CALGreen Chapter 1, Section 101.7.1 notes that the city, county, or city and county shall obtain California Energy Commission approval for any energy related ordinances consistent with Public Resources Code (PRC) Section 25402.1(h)(2) and Title 24, Part 1, Section 10-106.

The noted PRC Section 25402.1(h)(2) states:

The enforcement of city or county energy conservation or energy insulation standards, whenever adopted, with regard to residential and nonresidential buildings on which actual site preparation and construction have not commenced prior to the effective date of rules and regulations adopted pursuant to subdivisions (a) and (b) of Section 25402 and this section, if the city or county files the basis of its determination that the standards are cost effective with the commission and the commission finds that the standards will require the diminution of energy consumption levels permitted by the rules and regulations adopted pursuant to those sections. If, after two or more years after the filing with the commission of the determination that those standards are cost effective, there has been a substantial change in the factual circumstances affecting the determination, upon application by any interested party, the city or county shall update and file a new basis of its determination that the standards are cost effective. The determination that the standards are cost effective shall be adopted by the governing body of the city or county at a public meeting. If, at the meeting on the matter, the governing body

determines that the standards are no longer cost effective, the standards shall, as of that date, be unenforceable and no building permit or other entitlement shall be denied based on the noncompliance with the standards.

Title 24, Part 1, Section 10-106 requires:

10-106. Locally adopted energy standards.

(a) Requirements. Local governmental agencies may adopt and enforce energy standards for newly constructed buildings, additions, alterations, and repairs provided the Commission finds that the standards will require buildings to be designed to consume less energy than permitted by Part 6. Such local standards include, but are not limited to, adopting the requirements of Part 6 before their effective date, requiring additional energy conservation measures, or setting more stringent energy budgets. Local adoption of the requirements of Part 6 before their effective date is a sufficient showing that the local standards meet the requirements of this section and Section 25402.1(f)(2) of the Public Resources Code; in such a case only the documentation listed in Section 10-106(b), and a statement that the standards are those in Part 6, need be submitted.

(b) Documentation application. Local governmental agencies wishing to enforce locally adopted energy conservation standards shall submit four copies of an application with the following materials to the Executive Director:

1. The proposed local energy standards.
2. A study with supporting analysis showing how the local agency determined energy savings.
3. A statement that the local standards will require buildings to be designed to consume less energy than permitted by Part 6.
4. The basis of the agency's determination that the standards are cost effective.

In summary, local governmental agencies may adopt and enforce energy standards for newly constructed buildings, additions, alterations and repairs, provided the Energy Commission finds that the standards will require buildings to be designed to consume no more energy than permitted by Part 6. Such local standards include, but are not limited to, adopting the requirements of Part 6 before their effective date, adopting CALGreen voluntary provisions in whole or in part, requiring additional energy conservation measures, or setting more stringent energy budgets. Prior to enforcement, local jurisdictions adopting mandatory local energy efficiency standards shall submit a required application package and receive the required approval of the California Energy Commission in compliance with Title 24, Part 1, Section 10-106.

The number of local jurisdictions that may choose to adopt CALGreen voluntary provisions is unknown and unknowable, as is the extent to which any local jurisdictions choose to adopt the specific language provided by the voluntary appendices (as they may be adopted in whole or in part by the local jurisdiction, and the local jurisdiction may also adopt efficiency measures not specified in these provisions). Therefore, to the extent that the voluntary provisions do not mandate but nonetheless encourage adoption of efficiency ordinances by local jurisdictions,

the effective costs and benefits associated with the CALGreen provisions are unknown and unknowable. However, the local agency approval processes and requirements insure that whatever is adopted will be cost effective for the community.

**6) The proposed building standards are not unnecessarily ambiguous or vague, in whole or in part.**

The Energy Commission has proposed many changes in the Draft Express Terms that ensure clarity and prevent ambiguity, and anticipates making further changes throughout the rulemaking proceeding to continually improve the proposed language. Proposals or comments suggesting further clarity improvements are incorporated into the CALGreen Standards where staff determines that they provide a benefit to clarity without otherwise changing the application or effect of the regulatory language. The Energy Commission's assessments of applicable comments are discussed in the Comments & Responses section of the Final Statement of Reasons prepared following the formal public comment period(s).

**7) The applicable national specifications, published standards, and model codes have been incorporated into the proposed Building Standards as required by the State Building Standards Law, where appropriate.**

There are no federal laws applicable to nonfederal buildings in their entirety, so nothing in this realm could have been incorporated into the 2019 CALGreen voluntary provisions. However, the adopted CALGreen voluntary provisions do incorporate (as previous editions of the Standards have for decades incorporated) federal energy standards for particular appliances that may be installed in buildings.

In addition, the Energy Commission included model and national codes and specifications in the 2019 CALGreen voluntary provisions wherever appropriate.

Staff anticipates receiving comments during the rulemaking proceeding that address the incorporation of various specifications, standards, and codes into the proposed CALGreen Standards. The Energy Commission's assessments of applicable comments are discussed in the Comments & Responses section of the Final Statement of Reasons prepared following the formal public comment period(s).

**8) The format of the proposed building standards is consistent with that adopted by the Building Standards Commission.**

The 2019 CALGreen voluntary provisions continue to use the format of the other building standards in the state building code.

**9) The proposed building standards, if they promote fire and panic safety, as determined by the state fire marshal, have the written approval of the state fire marshal.**

The Energy Commission has obtained the written approval of the state fire marshal and their determination that the proposed 2019 CALGreen voluntary provisions do not promote fire or panic safety.

**CERTIFICATION**

The undersigned Secretariat to the Commission does hereby certify that the foregoing is a full, true, and correct copy of a Resolution duly and regularly adopted at a meeting of the California Energy Commission held on October 3, 2018.

AYE: Weisenmiller, Douglas, McAllister, Hochschild, Scott

NAY: None

ABSENT: None

ABSTAIN: None

Original Signed by:

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Cody Goldthrite  
Secretariat



## **Appendix A**

*Errata to the 2019 CALGreen 15-Day Language, as discussed and approved at the Commission's October 3, 2018 Business Meeting in response to public comment:*

Appendix 5: Change the bold heading "**Note:**" to "**Exception:**" in the paragraph immediately following section A5.203.1.1.1 Outdoor lighting. The exception was incorrectly labeled as a note. This is a nonsubstantive change for clarity, as it does not modify any operative language.