

**NOTICE OF PROPOSED ACTION
TO BUILDING STANDARDS OF THE
CALIFORNIA BUILDING STANDARDS COMMISSION
REGARDING THE 2025 CALIFORNIA GREEN BUILDING STANDARDS CODE,
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11
(BSC 03/24)**

Notice is hereby given that the California Building Standards Commission (BSC) proposes to adopt, approve, codify, and publish changes to building standards contained in the California Code of Regulations (CCR), Title 24, Part 11. The BSC is proposing building standards related to 2025 California Green Building Standards Code.

PUBLIC COMMENT PERIOD

Reference: Government Code Sections 11346.5(a)(1), 11346.5(a)(15) and 11346.5(a)(17).

A public hearing has not been scheduled; however, written comments will be accepted from **May 17, 2024**, until midnight on **July 1, 2024**.

Comments may be submitted to CBSC via:

Email: cbsc@dgs.ca.gov

US Mail postmarked no later than **July 1, 2024**:

California Building Standards Commission
Attention: Public Comments
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833

Note: Only comments received in an accessible format will be viewable via CBSC's website.

Any interested person, or his or her duly authorized representative, may request no later than 15 days prior to the close of the written comment period that a public hearing be held.

The public will have an opportunity to provide written and oral comments regarding the proposed action on building standards at a public meeting to be conducted by BSC to be scheduled at a date near the end of the current adoption cycle. A meeting notice will be issued announcing the date, time and location of the public meeting.

POST-HEARING MODIFICATIONS TO THE TEXT OF THE REGULATIONS

Reference: Government Code Section 11346.5(a)(18).

Following the public comment period, BSC may adopt the proposed building standards substantially as proposed in this notice or with modifications that are sufficiently related to the original proposed text and notice of proposed changes. If modifications are made, the full text of the proposed modifications, clearly indicated, will be made available to the public for at least 15 days prior to the date on which BSC adopts, amends, or repeals the regulation(s). BSC will accept written comments on the modified building standards during the 15-day period.

NOTE: To be notified of any modifications, you must submit written/oral comments or request that you be notified of any modifications.

AUTHORITY AND REFERENCE

Reference: Government Code Section 11346.5(a)(2).

The purpose of these building standards is to implement, interpret, or make specific the provisions of Health and Safety Code Sections 18928.1, 18930.5, 18931.7, 18941.10, 18944.19 and Educational Code Section 17661.

The BSC is proposing this regulatory action based on Health and Safety Code Sections 18928.1, 18930.5, 18941.10, 18944.19 and Educational Code Section 17661.

INFORMATIVE DIGEST

Reference: Government Code Section 11346.5(a)(3).

Summary of Existing Laws

Health and Safety Code Section 18928.1 specifies that building standards adopted or approved by BSC shall incorporate text of the model codes, applicable national specifications or published standards, in whole or in part, only by reference, with appropriate additions or deletions therefrom.

Health and Safety Code Section 18930.5 grants BSC the authority, if no state agency has the authority or expertise to propose green building standards applicable to a particular occupancy, to adopt, approve, codify, update, and publish green building standards for those occupancies.

Health and Safety Code Section 18931.7 states that BSC can utilize the Building Standards Administration Special Revolving Fund in carrying out the provisions of California Building Standards Law (Health and Safety Code, Division 13, Part 2.5) that relate to building standards, as defined in Section 18909, with emphasis placed on updating green building standards and verification guidelines for Tier 1 or Tier 2 green building standards.

Health and Safety Code Section 18941.10 authorizes BSC to adopt, approve, codify, and publish mandatory building standards for the installation of future electric vehicle charging infrastructure for parking spaces in nonresidential developments.

Health and Safety Code Section 18944.19 mandates BSC to research, develop, and propose for adoption revised mandatory building standards for short-term and long-term bicycle parking in nonresidential buildings upon the next triennial update of the CALGreen that occurs on or after January 1, 2023. In developing the standards, BSC is required to develop minimum mandatory bicycle parking standards using a method that is independent of the number of vehicle parking spaces.

Education Code Section 17661 mandates, upon the next triennial update of the California Building Standards Code, BSC to research, develop, and propose for adoption mandatory standards for carbon dioxide monitors in classrooms of a covered school and the University of California. The law specifies that this section shall apply to the University of California only to the extent that the Regents of the University of California, by resolution, make it applicable.

Summary of Existing Regulations

The California Green Building Standards Code, Part 11 of Title 24 of the California

Code of Regulations (CCR), also known as the CALGreen Code, contains the green building standards for various mandatory and voluntary regulations including Electric Vehicle (EV) charging and bicycle parking.

Summary of Effect

This proposed action will implement the proposed modifications to the CALGreen for buildings within BSC authority. Once filed with Secretary of State, the updated building standards will be codified and published by July 1, 2025, and will become effective January 1, 2026. The Initial Statement of Reasons (ISOR) provides a complete description of the proposed building standards and their effect.

The proposed amendments have some editorial and non-substantive changes with no intended change in regulatory effect. However, there are several amendments that are substantive and listed below.

Electric Vehicle (EV) amendments: The substantive changes include increasing the Electric Vehicle infrastructure percentages for both the mandatory and the voluntary provisions and new requirements for the mandatory installed electric vehicle charging stations (EVCS) for light-duty vehicles. Also proposed are increased percentages for EVCS for both Tier 1 and Tier 2.

Bicycle parking amendments: pursuant to AB 2863 (statutes of 2022), BSC is proposing amendments to revise the CALGreen minimum mandatory bicycle parking standards using a method that is independent of the number of vehicle parking spaces in nonresidential buildings.

Carbon dioxide monitoring in classrooms: pursuant to AB 2232 (statutes of 2022), BSC is proposing to add a new Section 5.506.4 Carbon dioxide (CO₂) monitoring in classrooms to require carbon dioxide monitoring in classrooms for both UC and CSU systems and certain private school classrooms.

Comparable Federal Statute or Regulations

There are no federal statutes or regulations that are comparable to the proposed updates to the CALGreen Code for EV, bicycle parking and carbon dioxide monitoring.

Policy Statement Overview

BSC is responsible for the development of green building standards for nonresidential occupancies for which no other state agency has authority or expertise. The proposed amendments have some editorial and non-substantive changes with no intended change in regulatory effect. However, there are several amendments that are substantive and listed below.

EV amendments: The objectives of the regulations are to propose changes to the building standards for light-duty Electric vehicle infrastructure for statewide application. The specific benefits anticipated by the proposed amendment is to realize substantial environmental benefits through reduction in energy use, greenhouse gas emissions, criteria pollutant emissions, and fossil fuel dependency leading to improved public health, as well as to reduce or eliminate expensive future retrofit costs.

Bicycle parking amendments: The objectives of the regulation are to propose

changes to the building standards for bicycle parking in response to AB 2863. The benefits include promoting bicycle ridership, reducing vehicles on roads, which reduces GHG emissions and traffic congestion, as well as the mental and physical health benefits of riding a bicycle and other forms of exercise which could reduce health-related costs to business owners.

Carbon dioxide monitoring in classrooms: The objectives of the regulation are to propose changes to the building standards for carbon dioxide monitoring in classrooms in response to AB 2232. The main benefits anticipated by the proposed amendment is to realize substantial environmental benefits. Another benefit is that improving indoor air quality in classrooms has shown to reduce absenteeism, reduce COVID-19 exposure, and maintain an improved environment for academic success.

Evaluation of Consistency

BSC has determined that the proposed regulations are not inconsistent or incompatible with existing state regulations.

OTHER MATTERS PRESCRIBED BY STATUTE APPLICABLE TO THE AGENCY OR TO ANY SPECIFIC REGULATION OR CLASS OF REGULATIONS

Reference: Government Code Section 11346.5(a)(4).

BSC has determined that there are no other matters prescribed by statute applicable to the agency or to any specific regulation or class of regulations.

MANDATE ON LOCAL AGENCIES OR SCHOOL DISTRICTS

Reference: Government Code Section 11346.5(a)(5).

BSC has determined that the proposed regulatory action would not impose a mandate on local agencies or school districts.

ESTIMATE OF COST OR SAVINGS

Reference: Government Code Section 11346.5(a)(6).

An estimate, prepared in accordance with instructions adopted by Department of Finance, of cost or savings to any state agency, local agency, or school district.

A. Cost or Savings to any state agency: **Yes**

To the extent the state authorizes new construction or renovation projects, any additional costs resulting from these regulations would be included in the overall total estimated project costs, subject to legislative approval.

All existing buildings will be subject to the proposed amendments. CARB staff assumes that all existing state buildings would be considered office buildings. CARB cannot identify the number of buildings that will be impacted by the proposed amendments during the effective date. CARB assumes a typical office building is in a 5,001 to 100,000 square foot building. Staff assumed the impacted state facilities would fall under the same building type and size range. Staff estimates that the State would install 1 to 20 EV Capable spaces and 2 to 59 Level 2 EVSE, for a construction cost ranging from \$5,821.61 to \$254,859.09. The state could elect to install 2 to 40 low power level 2 charging receptacles to replace all EV capable

spaces. Staff estimates the total cost for 2 to 40 low power level 2 charging receptacles and 2 to 59 Level 2 EVSE to range from \$8,632.36 to \$321,496.69.

All new state buildings are subject to these requirements. A typical office building of 5,000 to 100,000 square feet may install 1 to 14 EV capable spaces and 2 to 41 Level 2 EVSE. Staff assumed that a newly constructed state facility would be considered an office building and fall within the same size range. Staff estimates for a newly constructed state building, 1 to 14 EV Capable spaces and 2 to 41 Level 2 EVSE would be installed with a total cost ranging from \$5,821.61 to \$177,217.33. Developers could install low power level 2 chargers instead of EV capable spaces. Staff estimates that a developer could install a maximum of 2 to 28 low power level 2 charging receptacles and 2 to 41 Level 2 EVSE, with an estimated cost ranging from \$8,632.36 to \$223,863.65.

- B. Cost to any local agency required to be reimbursed under Part 7 (commencing with Section 17500) of Division 4: **No**
- C. Cost to any school district required to be reimbursed under Part 7 (commencing with Section 17500) of Division 4: **No**
- D. Other nondiscretionary cost or savings imposed on local agencies: **No**
- E. Cost or savings in federal funding to the state: **No**

Estimate:

EV: For existing state office buildings and parking facilities, staff estimates a cost ranging from \$5,821.61 to \$254,859.09. For newly constructed state buildings and parking facilities, staff estimates a cost of \$5,821.61 to \$177,217.33.

Bicycle parking and CO₂ monitoring: An estimate of cost or savings to any state agency, local agency, or school district is as follows:

State government: For the CO₂ monitoring regulations, there is no Impact on state governments as this proposal only applies to UC/CSU university classrooms and private charter school classrooms. The bicycle Racks/locker costs to state agencies constructing a new office (5,000 SF) buildings or qualifying additions ranges from \$300-\$4,500. Bicycle parking Fiscal impact costs from these regulations are subject to legislative approval.

Local government: Currently, local government building departments are responsible for enforcing the California Green Building Standards Code, Title 24, Part 11. There should not be any major fiscal effect on local governments to enforce a mandatory requirement in nonresidential new construction or qualifying additions and alterations. However, if there is a minor increase of costs to local governments to review and check plans for compliance, any increase in costs can be recovered from increases in permit fees and from the building permit application fees as per HSC 18931.6. When local governments are constructing new office (5,000 SF) buildings or qualifying additions the typical initial costs added are \$300-\$4,500 for bicycle parking regulations.

INITIAL DETERMINATION OF NO SIGNIFICANT STATEWIDE ADVERSE ECONOMIC IMPACT ON BUSINESSES

Reference: Government Code Section 11346.5(a)(8).

If the agency makes an initial determination that the adoption/amendment/repeal of this regulation will not have a significant, statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states, it shall make a declaration to that effect.

BSC has made an initial determination that the adoption of this regulation will not have a significant statewide adverse economic impact on businesses, including the ability of California businesses to compete with businesses in other states.

Declaration of Evidence

Reference: Government Code Section 11346.5(a)(8).

In making the declaration, the agency shall provide in the record of facts, evidence, documents, testimony, or other evidence that the agency relied upon to support its initial determination of no effect.

EV amendments: Regarding the proposal to require appropriate light-duty EV capable infrastructure and Level 2 EV chargers, BSC conducted stakeholder workshops on

- October 19th, 2023
- November 28th, 2023
- January 11th, 2024

These workshops were attended by state agencies, interested parties and stakeholder representatives such as the California Air Resources Board (CARB), the California Electric Transportation Coalition (CaETC), California Energy Commission, California Building Industry Association, Electric Vehicle Charging Association, Tesla, Southern California Edison, various local enforcing agencies, electric vehicle service providers, and private consultants. Based on testimony presented at the workshop and comments received from various stakeholders, BSC proposes to adopt the changes as suggested at the workshop.

BSC has made an initial determination that this regulatory action would marginally increase costs to California business enterprises representing up to 1.05 percent of the total new construction costs of nonresidential buildings, excluding office and retail buildings over the 3-year life of the amendments and with significant benefits to Californians due to improved air quality and greenhouse gas emissions reduction. The proposal will also help to alleviate expensive future retrofit costs for applicable building owners, saving them more than six times the cost of adding panel capacity and conduit in standalone retrofits of existing buildings. For office and retail buildings, BSC has made an initial determination that this regulatory action would marginally increase costs to California business enterprises representing up to 1.46% over the 3-year life of the amendments and with significant benefits to Californians due to the improved air quality and greenhouse gas emissions reductions.

This determination is based on comments received at the workshop and the cost benefit analysis provided by the California Air Resources Board. This analysis is based on the following:

1. ["Electric Vehicle \(EV\) Charging Infrastructure: Nonresidential Building Standards, CARB Technical and Cost Analysis, September 30, 2019"](#)

(https://ww2.arb.ca.gov/sites/default/files/2020-08/CARB_Technical_Analysis_EV_Charging_Nonresidential_CALGreen_2019_2020_Intervening_Code.pdf)

2. “2023 National Construction Estimator 71st Edition”, edited by Richard Pray October 2023
3. [2018 Commercial Buildings Energy Consumption Survey Preliminary Results](https://www.eia.gov/consumption/commercial/data/2018/index.php?view=characteristics) (<https://www.eia.gov/consumption/commercial/data/2018/index.php?view=characteristics>)
4. [Benefits and Considerations of Electricity as a Vehicle Fuel](https://afdc.energy.gov/fuels/electricity_benefits.html)” (https://afdc.energy.gov/fuels/electricity_benefits.html)
5. 2018 Grid Average Electricity Emissions Factor
6. [EMFAC \(ca.gov\)](https://arb.ca.gov/emfac/) (<https://arb.ca.gov/emfac/>)

BSC has shown in the Economic and Fiscal Impact Statement (399) and the Initial Statement of Reasons (ISOR) that the zero emissions vehicle infrastructure adjustments pose a marginal increase but do not pose a significant, statewide adverse economic impact directly affecting business in California and their ability to compete with businesses in other states.

Bicycle parking and CO2 monitoring:

For bicycle parking: BSC prepared a pre-cycle draft proposal and engaged the regulated community via an electronic email blast posted on the BSC website from October 25 to November 8, 2023, to garner public input from stakeholders and interested parties. No comments were received that the proposed changes would have significant statewide adverse economic impact on businesses.

For CO2 monitoring: BSC prepared a pre-cycle draft proposal and engaged the regulated community via an electronic email blast posted on the BSC website from December 14 to December 29, 2023, to garner public input from stakeholders and interested parties. No comments were received that the proposed changes would have significant statewide adverse economic impact on businesses.

BSC has shown in the Economic and Fiscal Impact Statement (399) and the Initial Statement of Reasons (ISOR) that the Bicycle parking and CO2 monitoring pose a marginal increase but do not pose a significant, statewide adverse economic impact directly affecting business in California and their ability to compete with businesses in other states. The public is welcome to submit any information, facts, or documents either supporting BSC’s initial determination or finding to the contrary.

FINDING OF NECESSITY FOR THE PUBLIC’S HEALTH, SAFETY, OR WELFARE

Reference: Government Code Section 11346.5(a)(11).

Any regulation that requires a report shall not apply to businesses, unless the agency makes a finding that it is necessary for the health, safety, or welfare of the public that the regulations apply to businesses.

BSC has assessed the proposed code changes and has determined that these changes

do not require a report.

COST IMPACT ON REPRESENTATIVE PRIVATE PERSON OR BUSINESS

Reference: Government Code Section 11346.5(a)(9).

Describe all cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

EV amendments: BSC is aware of initial cost impacts that a representative private person or business could incur in reasonable compliance with the proposed action. The cost impact has been determined to be up to 1.05 percent of all new applicable construction totals for all newly constructed nonresidential buildings, excluding office and retail. For newly constructed office and retail buildings, the cost impact is 1.46 percent.

However, it is also anticipated that such costs would be recouped in long-range savings expressed in utility and transportation costs, worker productivity, health costs, and goodwill. The Initial Statement of Reasons and the Economic and Fiscal Impact Statement support this statement.

Bicycle parking and CO₂ monitoring: BSC is aware of initial cost impacts that a representative private person or business could incur in reasonable compliance with the proposed action. The cost impact has been determined to be:

- For CO₂ monitoring = Initial installation costs range \$500-\$1,500.
- For Bicycle parking = Initial installation costs range \$300-\$4,500.

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

Reference: Government Code Section 11346.5(a)(10).

The BSC has assessed whether and to what extent this proposal will affect the following:

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

These regulations may cause some jobs to be created for the manufacturing, installation, and maintenance of Electric Vehicle Supply Equipment (EVSE), and for EV capable; installation of raceway and panel capacity to support future installation of EVSE. Some jobs may be created for the manufacturing, installation and maintenance of CO₂ monitoring and bicycle parking equipment installation. No jobs are expected to be eliminated.

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

These regulations will likely promote the expansion of businesses currently involved with EV manufacturing, installation, maintenance, and technology development, and some special trade construction businesses may be created for EV capable, CO₂ monitoring and bicycle parking equipment installations. No business is expected to be eliminated.

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

These regulations will likely promote the expansion of businesses currently involved with EV manufacturing, installation, maintenance, and technology development within the State of California, as well as the expansion of some businesses for CO₂ monitoring and bicycle storage equipment manufacturing, construction trades,

installers & suppliers.

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

These regulations will increase the sustainability of California's natural resources by reducing fuel use, GHG emissions, criteria pollutants, and fossil fuel dependence. CO₂ monitoring will promote better indoor air quality for students and teachers. Bicycle parking will increase ridership, reduce vehicles on roads which reduces GHG emissions and traffic congestion. Additionally, updating and clarifying the minimum current CALGreen codes will provide increased protection of public health and safety, worker safety and the environment.

ESTIMATED COST OF COMPLIANCE OF STANDARDS THAT WOULD IMPACT HOUSING

Reference: Government Code Section 11346.5(a)(12).

BSC has determined that this proposal would not have a significant effect on housing costs. BSC does not have authority to impose building standards or regulations affecting housing.

CONSIDERATION OF ALTERNATIVES

Reference: Government Code Section 11346.5(a)(13).

BSC has determined that no reasonable alternative considered by BSC or that has otherwise been identified and brought to the attention of BSC would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action. In addition, no reasonable alternative considered by BSC or that has otherwise been identified and brought to the attention of BSC would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provisions of law.

AVAILABILITY OF RULEMAKING DOCUMENTS

Reference: Government Code Sections 11346.5(a)(16) and 11346.5(a)(20).

All of the information upon which the proposed regulations are based is contained in the rulemaking file, which is available for public review, by contacting the person named below. This notice, the express terms and initial statement of reasons can be accessed from the [CBSC website](https://dgs.ca.gov/BSC): dgs.ca.gov/BSC.

Reference: Government Code Section 11346.5(a)(19).

Interested parties may obtain a copy of the final statement of reasons, once it has been prepared, by making a written request to the contact person named below or at the [CBSC website](https://dgs.ca.gov/BSC): dgs.ca.gov/BSC.

Reference: Government Code Section 11346.5(a)(21).

BSC shall provide, upon request, a description of proposed changes included in the proposed action, in the manner provided by Section 11346.6, to accommodate a person with a visual or other disability for which effective communication is required under state or federal law. The statement shall note that providing the accessible description of proposed changes may require extending the period of public comment for the proposed action.

CBSC CONTACT PERSON FOR PROCEDURAL AND ADMINISTRATIVE QUESTIONS

Reference: Government Code Section 11346.5(a)(14).

General questions regarding procedural and administrative issues should be addressed to:

Kevin Day, Acting Executive Director
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833
Telephone: (916) 263-0916

PROPOSING STATE AGENCY CONTACT PERSON FOR SUBSTANTIVE OR TECHNICAL QUESTIONS ON THE PROPOSED CHANGES TO BUILDING STANDARDS

Specific questions regarding the substantive or technical aspects of the proposed changes to the building standards should be addressed to:

Primary Contact:

Enrique M. Rodriguez, Associate Construction Analyst
California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833
Telephone No.: (916) 263-0916
enrique.rodriquez@dgs.ca.go

Back up Contact:

Irina Brauzman, Supervising Architect
California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833
Telephone No.: (916) 263-0916
irina.brauzman@dgs.ca.gov