

**INITIAL STATEMENT OF REASONS**  
**FOR**  
**PROPOSED BUILDING STANDARDS**  
**OF THE**  
**CALIFORNIA BUILDING STANDARDS COMMISSION**  
  
**REGARDING THE CALIFORNIA ELECTRICAL CODE**  
**CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 3**  
  
**AMEND 2013 CALIFORNIA ELECTRICAL CODE**

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

**STATEMENT OF SPECIFIC PURPOSE, PROBLEM, RATIONALE and BENEFITS:**

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

This proposed action by the CBSC amends the most current edition of the California Electrical Code (CEC) with necessary amendments for clarity for the code user.

**ARTICLE 625**

Electric Vehicle Charging System

**I. General**

625.1 Scope...

625.13 ***Electric Vehicle Supply Equipment Connection ...***

625.14 Rating...

**Purpose and Rationale**

The 2013 California Electrical Code (CEC), based upon the 2011 National Electrical Code (NEC), became effective on January 1, 2014. BSC has developed amendments to the 2013 CEC to incorporate provisions recognized in Tentative Interim Agreements (TIAs) to the 2011 NEC (model code), which have been adopted into the 2014 NEC. The TIAs to the 2011 model code are considered "interim" because they are effective only between editions of the standard NEC. However, the two TIAs being addressed have been subject to the full standards-making process by the National Fire Protection Association and adopted into the 2014 National Electrical Code.

The proposed changes to the 2013 CEC are necessary to provide clarity and consistency for implementation, enforcement and application with regard to statewide needs related to the use and capacity of electric vehicles and electric vehicle supply equipment.

**Rationale for Section 625.13:** BSC proposes to amend the above referenced section, which was approved as Tentative Interim Agreement 11-2 for the 2011 National Electrical Code (NEC), and proposed and approved for the 2014 NEC (renumbered as Section 625.44). The NEC change proposal was intended to clarify the use of cord- and plug-connected electric vehicle supply equipment (EVSE) and conditions for these uses. This change is primarily for clarification purposes with no additional costs for implementation. The proposed amendment:

- Clarifies that cord- and plug-connected EVSE at the 250 volt level, but not higher, is acceptable under specified conditions. This provides safety for the public and recognizes the evolution of "Level 2" chargers which are now available in both hard-wired models and more versatile plug-in and transportable models.
- Clarifies receptacle outlet rating acceptable for levels of EVSE.

- Clarifies the cord length acceptable for use and reduces potential conflict between this section and Section 400.8 which prohibit EVSE use based on longer cord lengths.

There is no intended change in regulatory effect.

**Rationale for Section 625.14:** BSC proposes to amend the above referenced section, which was approved as Tentative Interim Agreement 11-3 for the 2011 National Electrical Code (NEC), and proposed and approved for the 2014 NEC (renumbered as Section 625.41). The proposed language allows an option for calculating electric vehicle supply equipment loads which may not exceed electric service capacity or panel loads. This provides an alternate method for load calculation and, therefore, does not result in mandatory costs.

Additionally:

- NEC must recognize technology that will support the rollout of electric vehicles and existing infrastructure and regulation may place constraints on where EVs will be permitted.
- NEC 625.14 (2011 NEC) requires electrical vehicle supply equipment to be considered as a continuous load and to be added at 125% of the full load charging capacity of the equipment which may result in the service being too small to accommodate the load.
- The 2011 NEC has no provision for shedding loads to offset the EVSE load or to reduce charging loads to ensure the total home or building load was within the rating of the involved equipment.
- Allowance of "smart" EVSE or and energy management system may address situations where an infrastructure upgrade may otherwise be necessary and prevent use of an electric vehicle.

**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).)

There were no formal studies or reports used as the bases for the proposed amendments.

**STATEMENT OF JUSTIFICATION FOR PRESCRIPTIVE STANDARDS:**

(Government Code Section 11346.2(b)(4) requires a statement of the reasons why an agency believes any mandates for specific technologies or equipment or prescriptive standards are required.)

There are no mandates for specific technologies or equipment or prescriptive standards that are required.

**CONSIDERATION OF REASONABLE ALTERNATIVES**

(Government Code Section 11346.2(b)(5)(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.)

There are no reasonable alternatives identified by the agency. The Health & Safety Code, Section 18928, mandates this proposed action.

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

(Government Code Section 11346.2(b)(5)(B) requires a description of any reasonable alternatives that have been identified or that have otherwise been identified and brought to the attention of the agency that would lessen any adverse impact on small business.)

No alternatives were identified to lessen the adverse impact on small businesses. The Health & Safety Code, Section 18928, mandates this proposed action.

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

(Government Code Section 11346.2(b)(6)(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)

No facts, evidence, documents, testimony, or other evidence of any significant adverse economic impact on business have been identified. The Health & Safety Code, Section 18928, mandates this proposed action.

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

(Government Code Section 11346.2(b)(6)(B) 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.)

BSC's estimated cost of compliance is negligible based on the extent of the proposed modification. The potential benefits include providing an accurate update to the EV vehicle supply equipment connection and the rating of said equipment, and related assumptions are that this proposal will aid in identifying mandatory electric vehicle charging infrastructure for new construction within the CALGreen code and also is in response to AB 341 (Dickinson). BSC is proposing to add reference to California electrical code regarding EV requirements within the CALGreen regarding electric vehicle charging infrastructure in commercial applications.

**DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS**

(Government Code Section 11346.2(b)(7) 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.)

There are no federal regulations related to this proposed action. The Health & Safety Code, Section 18928, mandates this proposed action.