CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov

California Energy Commission
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UPDATED INFORMATIVE DIGEST

PROPOSED BUILDING STANDARDS OF THE CALIFORNIA ENERGY COMMISSION: CALIFORNIA CODE OF REGULATIONS, TITLE 24, PARTS 1 AND 6 (CALIFORNIA ENERGY CODE)

CALIFORNIA ENERGY COMMISSION DOCKET NUMBER 15-BSTD-01: 2016 BUILDING ENERGY EFFICIENCY STANDARDS

SUBMITTED TO THE CALIFORNIA BUILDING STANDARDS COMMISSION DECEMBER 4, 2015

Introduction

This Updated Informative Digest (UID) fulfills a requirement of California's Administrative Procedure Act[1] for the California Energy Commission's proposed amendments to its building energy efficiency standards in Parts 1 and 6 of Title 24, which would go into effect on January 1, 2017, following approval by the California Building Standards Commission. This update to the California Building Code, with the exception of provisions relating to Nonresidential Lighting Alterations, was adopted by the Energy Commission on June 10, 2015; the update to the Nonresidential Lighting Alteration provisions was adopted on November 12, 2015. Combined, this update to the Building Code is known as the 2016 Building Energy Efficiency Standards.[2]

This document updates the Informative Digest[3] that was published in the Notice of Proposed Action[4] for these regulations.[5]

A. Summary of Existing Laws and Regulations Related Directly to the Proposed Action or to the Effect of the Proposed Action

There have been no changes in the description of the existing laws or regulations related directly to these regulations (or to their effects) from those described in the Notice of Proposed Action.[6]

B. Consistency with Existing Comparable Federal Regulations and Sttutes

[1] Government Code § 11340 et seq.
[2] Documents included in the rulemaking package refer to the proposed standards in various ways, e.g., "2016 Building Energy Efficiency Standards," "proposed standards," and "2016 Standards"; In addition, "California Energy Commission" is sometimes shortened to "Energy Commission."
[3] See Gov. Code §§ 11346.2, Subd. (a)(3), 11346.9, Subd. (b).
[4] Notice of Proposed Action, Revisions to the California Building Energy Efficiency Standards, Cal. Code of Regulations, Tit. 24, Parts 1 and 6 (California Energy Code), Feb. 13, 2015 (NOPA).
[5] Building Energy Efficiency Standards, Cal. Code of Regulations, Tit. 24, Parts 1 and 6.
[6] See NOPA, pp. 4-9.

As stated in the Informative Digest in the Notice of Proposed Action, there are no federal energy standards applicable to nonfederal buildings.[7] However, there is a complex series of federal actions that can affect state energy standards.

The United States Department of Energy (DOE) is required by law (in the Energy Conservation and Production Act (ECPA, Public Law 94-385)) to determine whether the latest edition of ASHRAE Standard 90.1 (for commercial and multi-family high-rise residential buildings) or the latest version of the International Energy Conservation Code (for low-rise residential buildings) will improve energy efficiency compared to the previous edition of the corresponding standard or code. DOE has one year to publish a determination in the Federal Register after each new edition of the standard/code is published.[8]

Federal law also requires that DOE publish determinations as to whether new editions of ASHRAE Standard 90.1 and the International Energy Conservation Code will improve energy efficiency. The determinations are based on analyses by the Building Energy Codes Program (BECP) and are required by Section 304 of ECPA, as modified by the Energy Policy Act of 1992 (EPAct 1992). DOE has one year to publish the determinations after the newest edition of the standard is published.

If DOE finds that the newest version of ASHRAE Standard 90.1 is more energy efficient than the previous version, states are required by EPAct 1992 to certify that their building energy codes or standards meet or exceed the requirements of the new standard within two years. Ever since the federal requirement went into effect, the Title 24 Building Energy Efficiency Standards have exceeded not only ASHRAE Standard 90.1 but also all other nationwide building standards, and the same is true of the proposed 2016 Standards.

C. Policy Statement Overview and Specific Benefits of the Proposed Regulations

The 2016 Building Energy Efficiency Standards employ a range of mandatory and prescriptive energy efficiency measures to reduce wasteful, uneconomical, and unnecessary uses of energy, thereby reducing the rate of growth of energy consumption, prudently conserving energy resources, and assuring that statewide environmental, public safety, and land use goals are met. All of these objectives are mandated by law.[9] (See, e.g., Public Resources Code sections 25002, 25007, 25402 (first paragraph)).

Improvements in energy efficiency are among the best, and often the cheapest and most environmentally-friendly, methods of balancing the state's electricity demand and supply. Thus existing law[10] requires the Energy Commission to adopt energy efficiency standards for buildings. The benefits of the Standards – both previous editions of the Standards as well as the 2016 Standards proposed here for approval by the Building Standards Commission – are considerable:

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[7] NOPA, p. 9.
[8] http://www.energycodes.gov/regulations.
[9] (See, e.g., Public Resources Code sections 25002, 25007, and 25402 (first paragraph).
[10] Public Resources Code sections 25213, 25402(a-(b), 25402.1, 25402.4, 25402.5, 25402.8, and 25910.

- Promotion of a reliable electrical system;
- Elimination or mitigation of wasteful, uneconomic, inefficient, and unnecessary uses of electricity;
- Reductions in the trend of increasing electricity consumption;
- Protection of energy, land and water resources, and the state's environmental quality;
- Creation of jobs; and
- Reduced energy costs for consumers and businesses.

All of these benefits are achieved in a manner that saves money for consumers, because the Standards must, by law, be cost-effective.[11] Thus while the Standards are expected to add $2,700 to the typical cost of a new single family home, they will return more than $7,400 in energy savings over 30 years to their occupants.

Table 1 summarizes the analysis. None of the subsequent revisions to the Standards added any costs, and many reduced costs, so the numbers in the Table are conservative (i.e., the proposed Standards are actually more cost-effective than shown).

Table 1. Summary of Statewide Costs and Energy Bill Savings

Sector	Statewide Measure Costs	Statewide Energy Bill Savings	Statewide Net Savings
Residential	$381.72 Million	$1,337.22 Million	$955.50 Million
Nonresidential	$652.37 Million	$2,679.19 Million	$2,026.82 Million
Total	$1.13 Billion	$4.11 Billion	$2.98 Billion

D. Evaluation of Consistency with Existing State Regulations

The 2016 Building Energy Efficiency Standards are more stringent than the existing standards. As stated in the Resolution adopting the regulations,[12] the Energy Commission has determined that the regulations are consistent with the Energy Code, the California Building Code,[13] the Warren-Alquist Act,[14] and the California Building Standards Law.[15]

An update to the summary of the proposed changes in this rulemaking proceeding, and to the detailed explanations of each section, is in the Final Statement of Reasons ("FSOR").

E. Other Applicable Matters Prescribed by Statute

Other applicable matters prescribed by statute are described in the Final Statement of Reasons, and in the Nine Point Criteria Analysis.

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[11] Pub. Resources Code, § 25402, Subd.(b)(3)
[12] Resolution Adopting Negative Declaration and Proposed Regulations, 2016 Title 24 Building Energy Efficiency Standards Rulemaking Proceeding Cal. Code Regs., Tit. 24, Part 11, Reso. No. 15-0610-5, June 10, 2015, pp. 4-19.
[13] Cal. Code Regs., Tit. 24.
[14] Pub. Resources Code § 25000 et seq.
[15] Health & Safety Code § 18901 et seq.