

DOCKETED

Docket Number:	17-BSTD-02
Project Title:	2019 Title 24, Part 6, Building Energy Efficiency Standards Rulemaking
TN #:	222460
Document Title:	2-5-18 Introductory Presentation on Proposed 2019 Energy Code
Description:	Presentation given by Payam Bozorgchami at the 2-5-18 Commissioner Hearing on the proposed 2019 Energy Code.
Filer:	Adrian Ownby
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	2/7/2018 4:06:45 PM
Docketed Date:	2/7/2018

2019 Building Energy Efficiency Standards Lead Commissioner Hearing For 45-Day Language

California Energy Commission
Hearing Room A
(Arthur Rosenfeld Room)

February 5, 2018

Payam Bozorgchami, PE
Senior Civil Engineer
Project Manager, Building Energy Efficiency Standards

Building Standards Office
Efficiency Division



Housekeeping Items

- **Restroom locations**
 - Outside the double doors to your left
- **The Snack Bar**
 - Located on the 2nd floor under the white awning
- **Event of an Emergency and the building is evacuated.**
 - Follow our employees to the Roosevelt park, located across the street from this building
 - Proceed calmly and quickly following the employees with whom you are meeting



Title 24, Part 6: Energy Code Agenda

Part 1, Section 10 – Administrative Regulations (all but 10-103's)

§ 110.0 – Systems & Equipment

§ 150.0 – Low-Rise Residential- Mandatory

§ 150.1 – Low-Rise Residential- Prescriptive

**§ 150.2 – Low-Rise Residential- Additions &
Alterations**

JA – Joint Appendix

RA – Residential Appendix

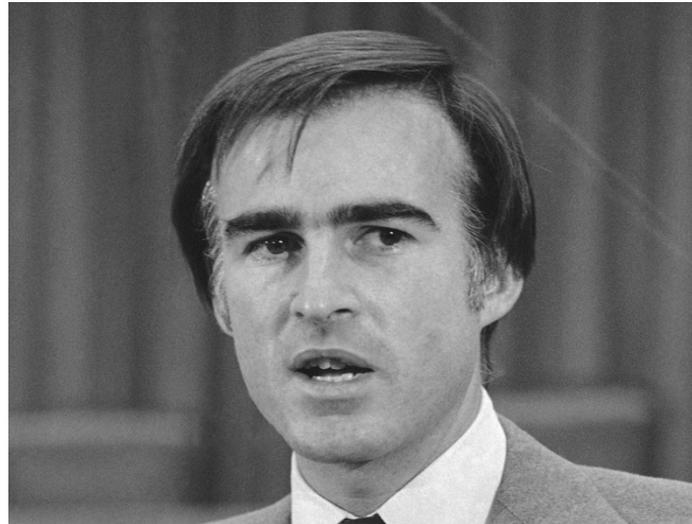
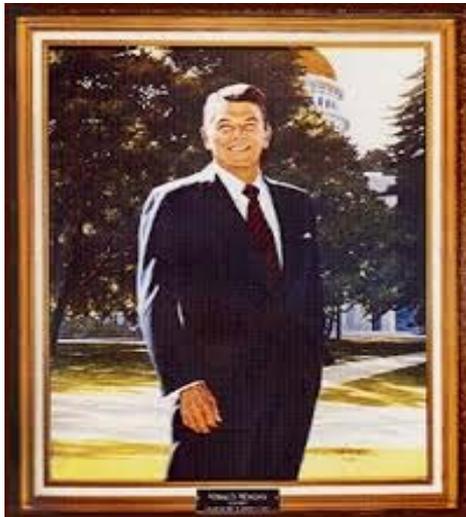
**ACM – Alternative Calculation Method Approval
Manual**



Authority & Process

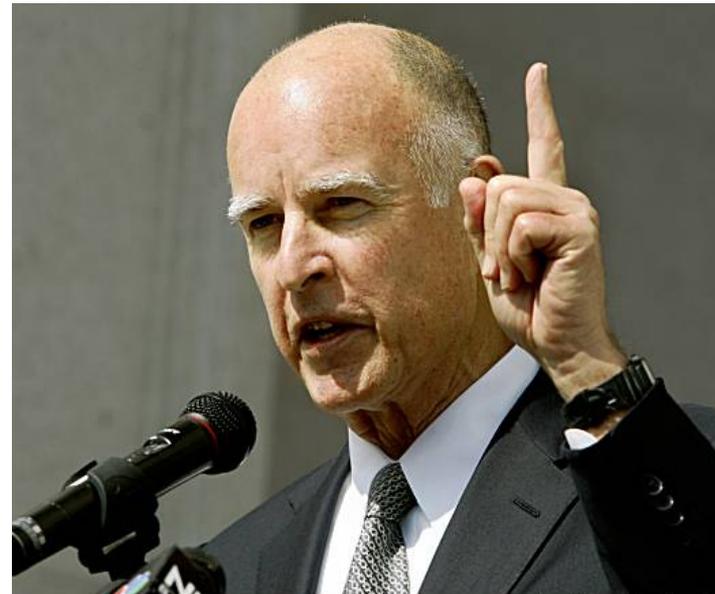
Public Resources Code (PRC 25402): Reduction of wasteful, uneconomic, inefficient, or unnecessary consumption of energy

- (a)(1) Prescribe, by regulation, lighting, insulation, climate control system, and other building design and construction standards that increase the efficiency in the use of energy and water...
- Warren Alquist Act Signed into law in 1974 by Governor Ronald Reagan and launched by Governor Jerry Brown in 1975 which mandates updates Building Efficiency Standards and requires the building departments to enforce them through the permit process.



Policy Drivers For Building Standards

- Governor's "Clean Energy Jobs Plan"
- Governor Brown's goals – focused on ZNE building code requirement by 2020 for newly constructed residential buildings – get there in three code cycles (2013, 2016, 2019)
- Zero Net Energy:
Residential by 2020 and
Nonresidential by 2030
- CARB Climate Change
Scoping Plan
- California Long Term
Energy Efficiency
Strategic Plan



Paul Chinn / The Chronicle



How Standards Are Updated

- Energy Commission staff, with help from the utility partners and the consultants, write the Triennial Standards update.
- The updates are presented at both utility-sponsored stakeholder meetings and the public in staff workshops and committee hearings.



SOUTHERN CALIFORNIA
EDISON



A Sempra Energy utility



A Sempra Energy utility



How Standards Are Updated

Life Cycle Costing

Standards measures must be cost effective

1. Using Life Cycle Costing Methodology (LCC)

- i. Discounted cash flows for costs and benefits
- ii. Accounts for maintenance costs/benefits
- iii. Appropriate discount rates and life of measures -
30 years for residential measures
15 years for nonresidential measures

2. Time Dependent Valuation (TDV)

- i. Value of gas and electricity changes depending on the season and the time of day
- ii. 8,760 TDV multipliers for each hour of the year
- iii. Favors measures that save energy during high demand periods

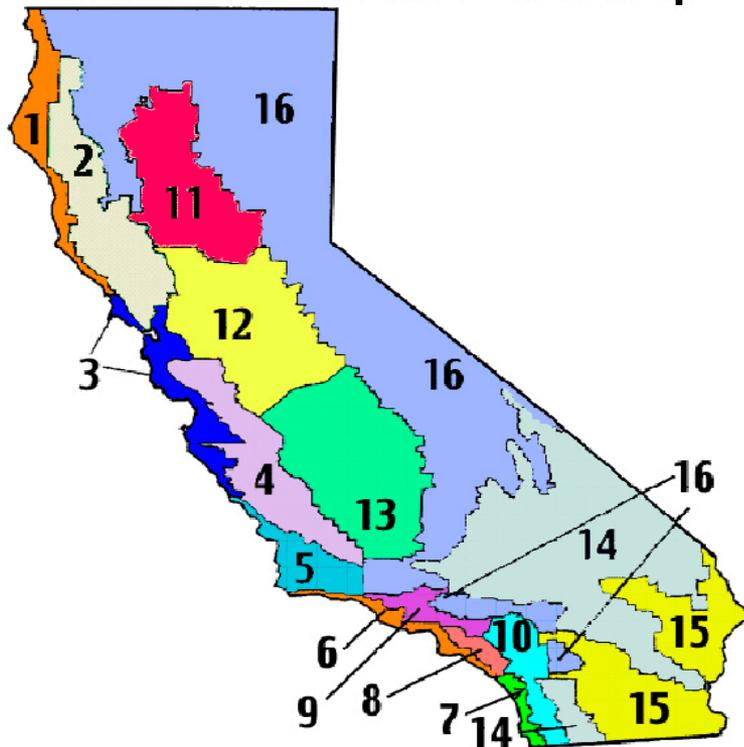


California Standards for California Climates

■ Focus on CA Climate Diversity

- Standards set expectations for climate-specific designs
- CA weather data captures statewide coincident peak demand climate conditions

California Climate Zone Map



Coastal - 1, 3, 5, 6, 7, 8

Inland - 2, 4, 9, 10

Central Valley - 11, 12, 13

Desert - 14, 15

Mountains -16



Statewide Utility-Sponsored Stakeholder Meetings

Completed Utility-Sponsored Stakeholder Meetings

First Round of Stake Holder Meetings Held By The Utilities
(9 in person Meeting)

September 2016 to December 2016

Second Round of Stake Holder Meetings Held By The
Utilities(10 Webinars)

March 2017

<http://title24stakeholders.com/publicmeetings/>



California Energy Commission Pre-Rulemaking Staff Workshops

(14 Pre-Rulemaking Staff Workshops Held at
the Energy Commission)

May, 2016 until October, 2017

<http://www.energy.ca.gov/title24/2019standards/prerulemaking/documents/>



2019 Standards Process From HERE to the Effective Date

2019 STANDARDS UPDATE SCHEDULE

DATE	MILESTONES
January 16, 2018	Negative Declaration (Environmental Analysis) Post for a 30-Day review
February 5 & 6, 2018	Lead Commissioner Hearing
February 20, 2018 Great but March 5, 2018	Comments for the Lead Commissioner Heard Due
March 21, 2018	45-day Language Hearings
April 11 , 2018	Adoption of 2019 Standards at Business Meeting (15-Day)
May 7 & 8, 2018	ACM Reference Manual Workshop
February to December 2018	Staff work on Software, Compliance Manuals, Electronic Documents Available to Industry
January 1, 2020	Effective Date



New for the 2019 Residential Standards

2019 Standards Approach For Meeting Compliance

- Mandatory Indoor Air Quality Measures
- Prescriptive Door Insulation requirements
- Higher Mandatory Insulation requirement for walls
- More efficient Fenestration requirement
- Prescriptive Requirement for QII
- Higher Prescriptive Roof Deck and Wall Insulation Requirements
- Improved Air Handler Fan Efficacy
- Prescriptive Photovoltaic Systems Requirements

2019 Standards Compliance (Performance Method)

- PV + Battery
- EDR Vs. TDV
 - Efficiency + Flexibility



Hearing Goal

**BIG THINGS
START WITH
ONE STEP**



How to submit written comments

- **We strongly encourage submitting written comments via e-file.** Comments on the proposed 2019 Energy Code can be submitted to: <https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=17-BSTD-02>.
- Comments on the proposed 2019 CALGreen can be submitted to: <https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=17-BSTD-03>.
- Comments can also be submitted physically or by e-mail, here:

California Energy Commission
Dockets Office, MS-4

Re: Docket No. 17-BSTD-02 (for CALGreen, 03)

1516 Ninth Street

Sacramento, CA 95814-5512

Docket@energy.ca.gov

- **Final deadline for written comments is March 5th by 5:00 PM.**



Questions

