

DOCKETED

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Building Energy Efficiency Standards

2019 Pre-Rulemaking for Building Energy Efficiency Standards

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Project Manager, 2019 BEES

October 04, 2017

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

What We Will Cover Today

- How Title 24, Part 6 is developed
- **Gabriel Taylor, P.E.**
 - § 100 – General Provision + Healthcare Facilities
 - § 110 – Mandatory Equipment Provisions
- **Mark Alatorre, P.E.**
 - § 120 – Mandatory for Nonresidential, High Rise Residential, and Hotel/Motel Buildings
- **Peter Strait**
 - § 130 – Mandatory Requirements for Lighting Systems and Electrical Power Distribution
- **Mark Alatorre, P.E., Simon Lee, P.E.**
 - § 140 – Performance and Prescriptive Compliance Approaches

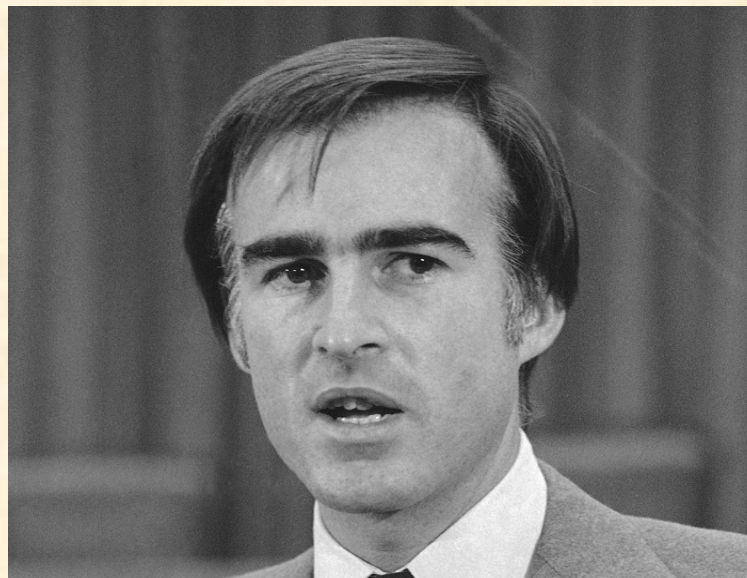
What We Will Cover Today

- **Thao Chau**
 - § 141 – Additions and Alterations
- **Mark Alatorre, P.E.**
 - Nonresidential Appendix (NA)

Authority & Process

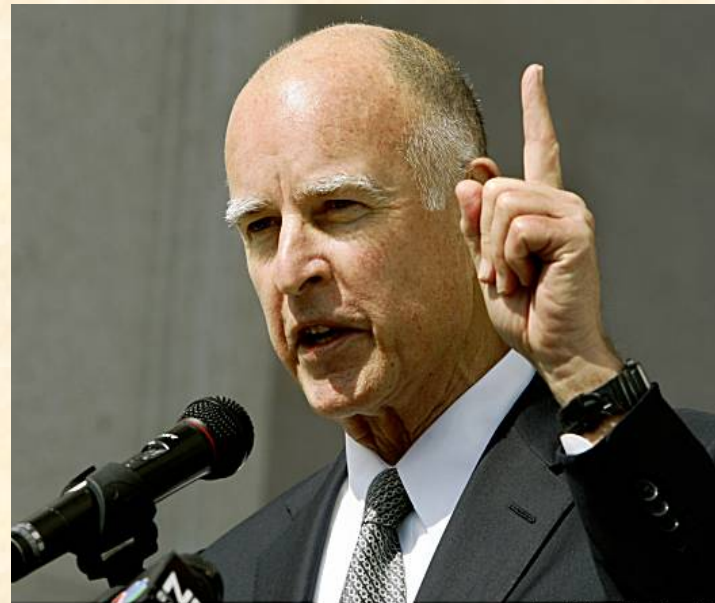
Public Resources Code (PRC 25402): Reduction of wasteful, uneconomic, inefficient, or unnecessary consumption of energy

- (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 ZNE 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

Title 24
2019
Standards



How Standards Are Updated

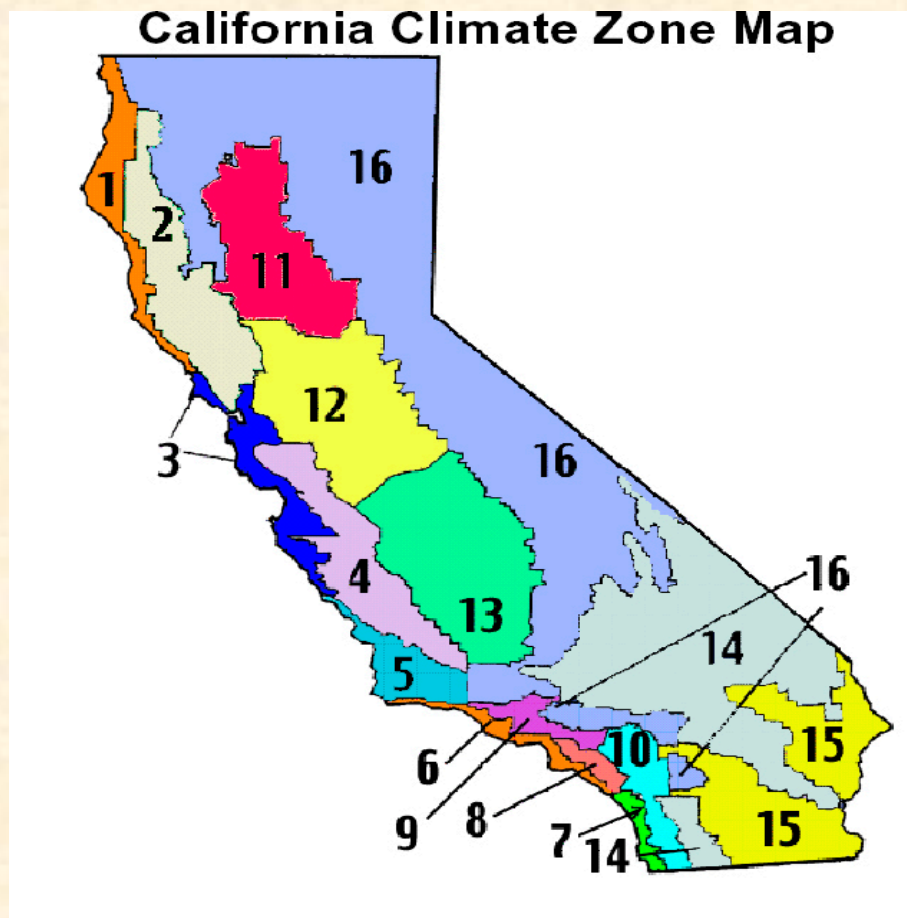
- Energy Commission staff, with help from the utility partners and the consultants, write the Triennial Standards update.
- The updates are presented at both utility-sponsored stakeholder meetings and the public in staff workshops and committee hearings.



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



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

Inland - 2, 4, 9, 10

Central Valley - 11, 12, 13

Desert - 14, 15

Mountains - 16

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



2019 Standards Process

We are very early in the process, the pre-rulemaking is set to begin soon

2019 STANDARDS UPDATE SCHEDULE	
DATE	MILESTONES
February 2016-July 2016	Measures Identified
August 2016 to June 2017	Stakeholder meeting/workshop & final staff workshop
August/September 2017	CASE Reports submitted to the CEC
January , 2018	45-day Language Hearings
March, 2018	Adoption of 2019 Standards at Business Meeting
June 1, 2018 to November 2018	Staff work on Software, Compliance Manuals, Electronic Documents Available to Industry
November 1, 2018	Approval of the Manuals
January 1, 2019	Software, Compliance Manuals, Electronic Documents Available to Industry
January 1, 2020	Effective Date



Title 24
2019
Standards



KEY WEB-LINK

2019 Title 24 Utility-Sponsored Stakeholder

<http://title24stakeholders.com/>

Building Energy Efficiency Program

<http://www.energy.ca.gov/title24/>

Comments to be submitted to

<https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=17-BSTD-01>

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Questions?

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