



## Title 24 Changes and the Impact on Your OpenADR Strategy

January 17, 2018



## Welcome!

- Thank you for joining today's webinar: **Title 24 Changes and the Impact on Your OpenADR Strategy**

Today's Speakers:



- Gabriel Taylor, Licensed Professional Engineer with the Building Standards Office at the California Energy Commission



- Rolf Bienert, Technical Director, OpenADR Alliance





# California Energy Efficiency Building Standards

## 2019 Demand Response Proposal



January 17, 2018



**Gabriel D. Taylor, P.E.**  
Energy Efficiency Division  
California Energy Commission



## Goals for Today

- Background & History
- Proposed Changes
- Open ADR Specification
- Schedule



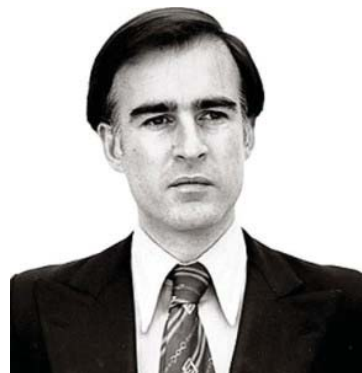


## 1973: Energy Crisis



## 1974 & 1975: The Warren Alquist Act

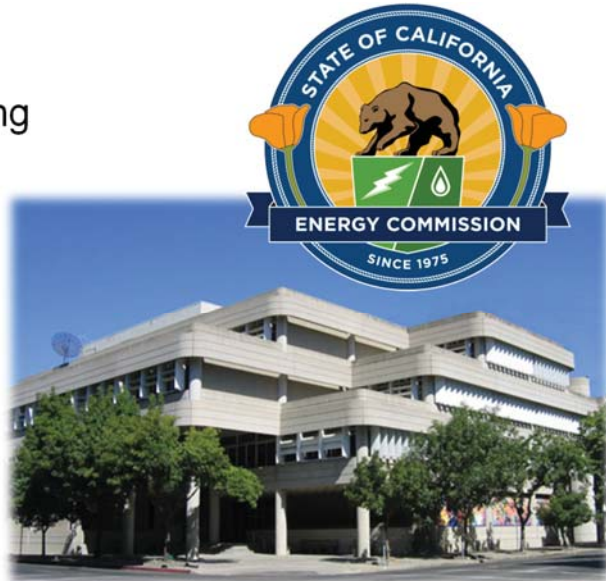
**Prescribe, by regulation, lighting, insulation climate control system, and other building design and construction standards that increase the efficiency in the use of energy...**





## California Energy Commission

- Energy Policy
- Power Plant Permitting
- Research & Development
- Emergency Planning
- Transportation
- Renewable Energy
- **Energy Efficiency**



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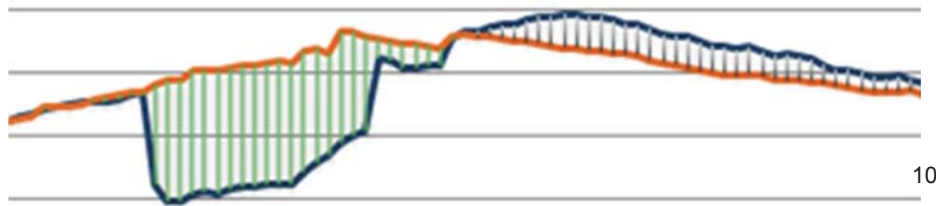
## California Code of Regulations, Title 24, Part 6: Building Energy Efficiency Standards





## Why is DR in the Building Standards?

- Enable Cost Effective Actions
- Information, Motivation, & Tools
- Building Owner / Operator Centric



## Summary of Proposal

- Proposed Cleanup
  - Consolidate all DR language
    - New Standard Section 110.12
- Proposed Standards Changes
  - New Definitions
  - Revise Joint Appendix 5 (JA-5)
  - Specify OpenADR Protocol





## DR Cleanup: Consolidation (§110.12)

- HVAC Controls (§120.2)
- Lighting & Electrical Power (§130.0)
- Lighting Controls (§130.1)
- Sign Lighting Controls (§130.3)
- Electrical Power Distribution (§130.5)
- Thermostatic Controls (§150.0)
- Low-rise Residential Additions and Alterations (§150.2)

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## DR Cleanup: Consolidation (§110.12)

- All Demand Response Requirements
- Clarify & Simplify
- New Section 110.12

***No requirement changes***

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## DR Standards Change: New Definitions (§100.1)

- Demand Responsive Control
- Energy Management Control System
  - EMCS
- OpenADR 2.0a and 2.0b
- Virtual End Node (VEN)

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## DR Standards Change: Joint Appendix 5 (JA5)

- Occupant Controlled Smart Thermostats (OCST)
- Rewrite for Clarity
- Separate DR from Thermostat Specs



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## DR Standards Change: OpenADR (§110.12)

- Require OpenADR for  
“Demand Responsive Controls”



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## OpenADR History

- **2002:** Following energy crisis, the Energy Commission funded research
- **2003-2006:** Pilots & Field Trials
- **2009:** OpenADR 1.0
  - Energy Commission Publication
- **2011:** OpenADR 2.0a
- **2014:** OpenADR 2.0b

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## DR Standards Change: OpenADR (§110.12)

**DEMAND RESPONSIVE CONTROL** is a kind of control that is capable of receiving and automatically responding to a demand response signal.

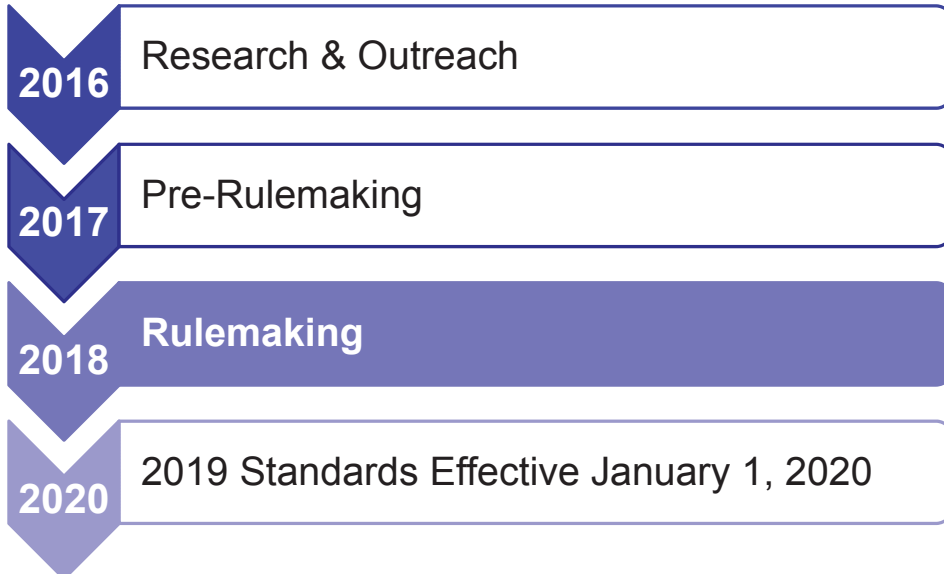
All **demand responsive controls** shall be an OpenADR 2.0a or OpenADR 2.0b Virtual End Node (VEN), as specified under Clause 11, Conformance, in the applicable OpenADR 2.0 Specification.

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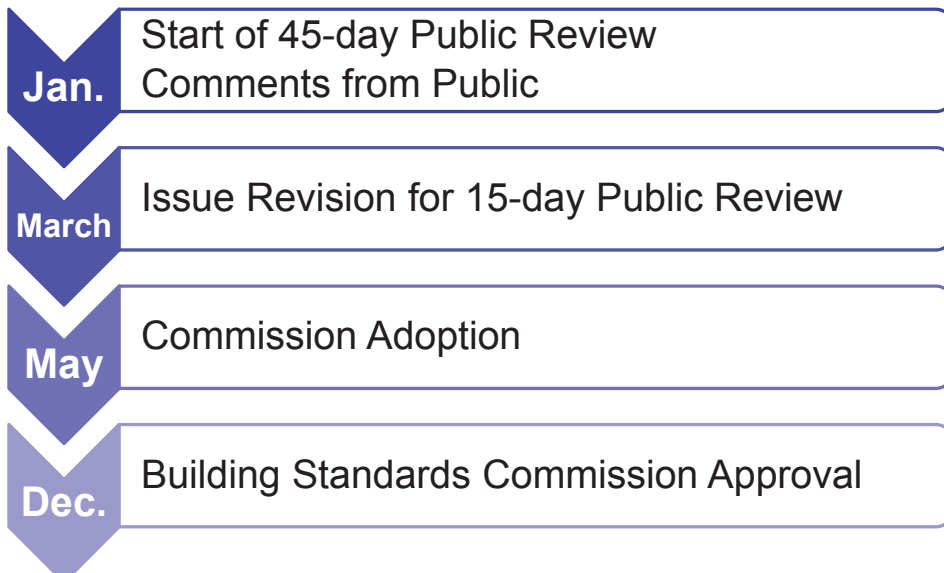
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## Schedule: 2019 Title 24 Standards



## Schedule: Rulemaking (2018)





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

Home → title24 → 2019standards

### 2019 Building Energy Efficiency Standards

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 Standards will continue to improve upon the 2016 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2019 Standards will go into effect on January 1, 2020.

#### Members of the News Media:

Please contact the Media and Public Communications office at 916-654-4989.

#### Reference Documents

- [Pre-Rulemaking](#)

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## Q&A

- Recording and slides from this presentation will be available at [www.openadr.org](http://www.openadr.org).
- The OpenADR Webinar Series will continue throughout 2018. More information on the Alliance and future webinar topics can be found on [www.openadr.org](http://www.openadr.org).



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