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

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)

No requirement changes
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 Standards Change:
New Definitions (§100.1)

• Demand Responsive Control
• Energy Management Control System
  – EMCS
• OpenADR 2.0a and 2.0b
• Virtual End Node (VEN)
DR Standards Change: Joint Appendix 5 (JA5)

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

DR Standards Change: OpenADR (§110.12)

- Require OpenADR for “Demand Responsive Controls”
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

**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.
**Schedule: 2019 Title 24 Standards**

- **2016**: Research & Outreach
- **2017**: Pre-Rulemaking
- **2018**: Rulemaking
- **2020**: 2019 Standards Effective January 1, 2020

January 17, 2018

**Schedule: Rulemaking (2018)**

- **Jan.**: Start of 45-day Public Review
  Comments from Public
- **March**: Issue Revision for 15-day Public Review
- **May**: Commission Adoption
- **Dec.**: Building Standards Commission Approval

January 17, 2018
Contact Information

Gabriel D. Taylor, P.E.
Building Standards Office
Gabriel.Taylor@energy.ca.gov
(916) 654-4482

Payam Bozorgchami, P.E.
Project Manager, 2019 Standards
Payam.Bozorgchami@energy.ca.gov
(916) 654-4618

Peter Strait
Supervisor, Standards Development
Peter.Strait@energy.ca.gov
(916) 654-2817

Christopher Meyer
Manager, Building Standards Office
Christopher.Meyer@energy.ca.gov
(916) 654-4052

http://www.energy.ca.gov/title24/2019standards/
Q&A

- Recording and slides from this presentation will be available at 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.

Follow OpenADR

Follow: @OpenADRAliance
Connect: OpenADR Alliance Open Group
Like: OpenADR Alliance
Explore: OpenADR Alliance Channel