

DOCKETED

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C A L I F O R N I A E N E R G Y C O M M I S S I O N

Proposed DR Elements of the Building Standards (2019 Title 24, Part 6)

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

2019 IEPR Workshop
Rosenfeld Hearing Room
August 8, 2017



Demand Response in 2019 Title 24, Part 6

- Zero Net Energy (ZNE)
- 2019 Solar Requirement
- Demand Flexibility
 - Grid Harmonization
 - Minimize Export
 - Maximize Benefit



Summary of Proposed Changes

- Proposed Cleanup
 - Harmonize with ASHRAE 90.1-2016
 - Consolidate all DR language
- Proposed Code Changes
 - Specify OpenADR Protocol





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Proposed Code Change: Consolidation (§110.X)

- 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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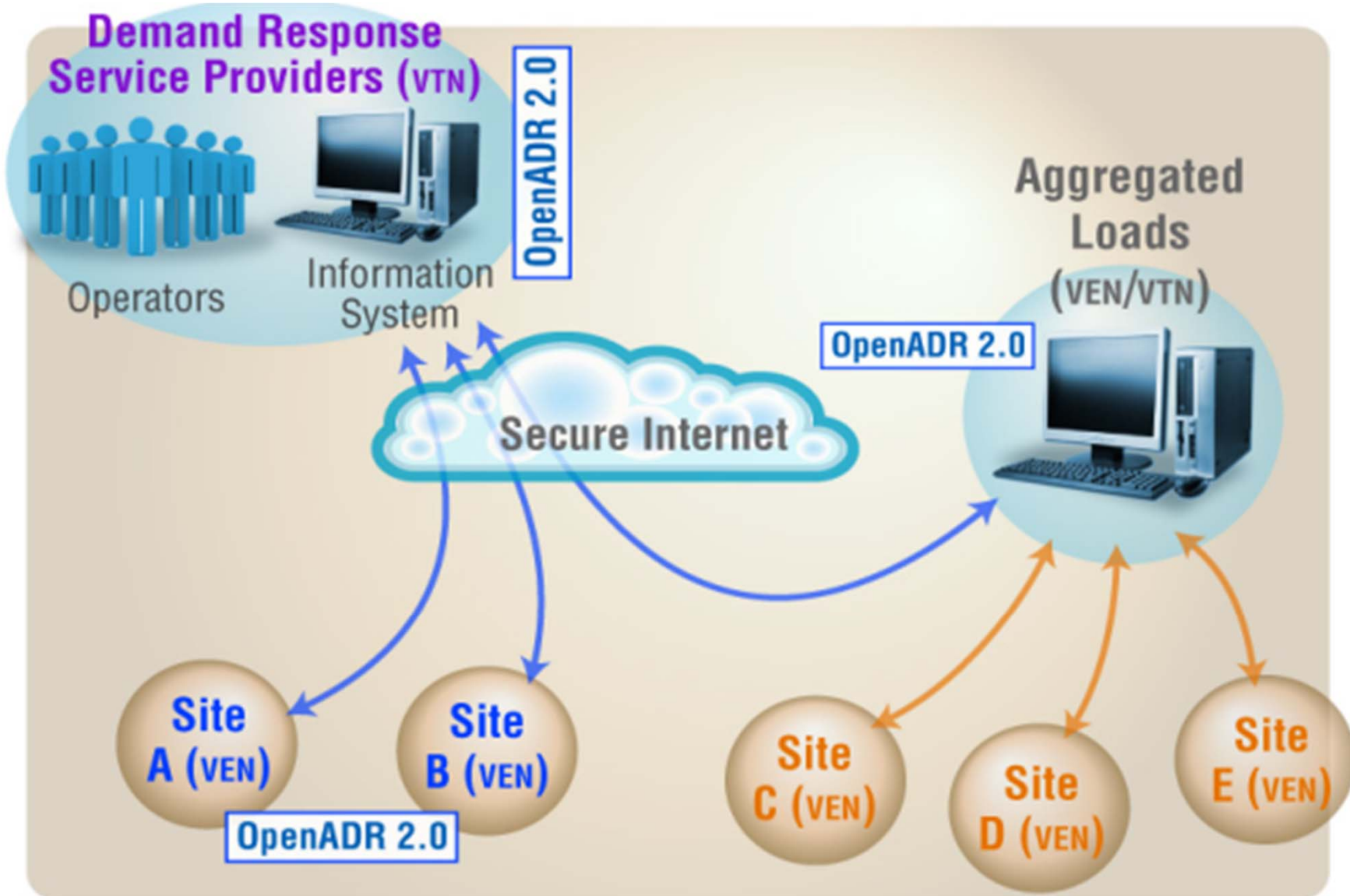
Proposed Code Changes: **OpenADR (§110.X)**

- OpenADR 2.0a or OpenADR 2.0b





CALIFORNIA ENERGY COMMISSION





Open Automated Demand Response: OpenADR

- **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



Schedule: 2019 Title 24 Standards

2016

Research & Outreach

2017

Pre-Rulemaking

2018

Rulemaking

2020

2019 Standards Effective January 1, 2020



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