



CPUC Vision for Demand Response Programs

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Topics

- 1. Demand Response (DR) accomplishments, programs and challenges today**
- 2. New DR goals and framework**
 - Procured Resources: as supply-side resource fully aligned with system resource planning requirements
 - Customer-Focused Program/Rates: as demand-side resource
- 3. DR Roadmap**
 - Rule 24 implementation
 - New DR OIR & Bridge funding for 2015
 - 2015 RA: Flexible Capacity Framework
 - Integration with other demand-side programs: EE & DG





DR Accomplishments

- **Smart Meter approval and deployment (2005-2012)**
- **Load Impact Protocol (2008)**
- **Cost Effectiveness Protocol (2010)**
- **Cap on Emergency DR Programs (2010)**
- **Approval of multi-year IOU-Aggregator Contracts (2007, 2013)**
- **Default CPP and Mandatory TOU rates for Non-Residential Customers (started in 2010)**
- **Rule 24 Policy Decision (2012)**





Utilities' DR Programs Today

1. Price-responsive programs:

- Triggered by CAISO prices or some proxy for price (e.g. heat rate, system load, weather, etc)
- Variety of incentive structures
- Time-Based Rates

2. Emergency or Reliability programs:

- Triggered by extreme system conditions

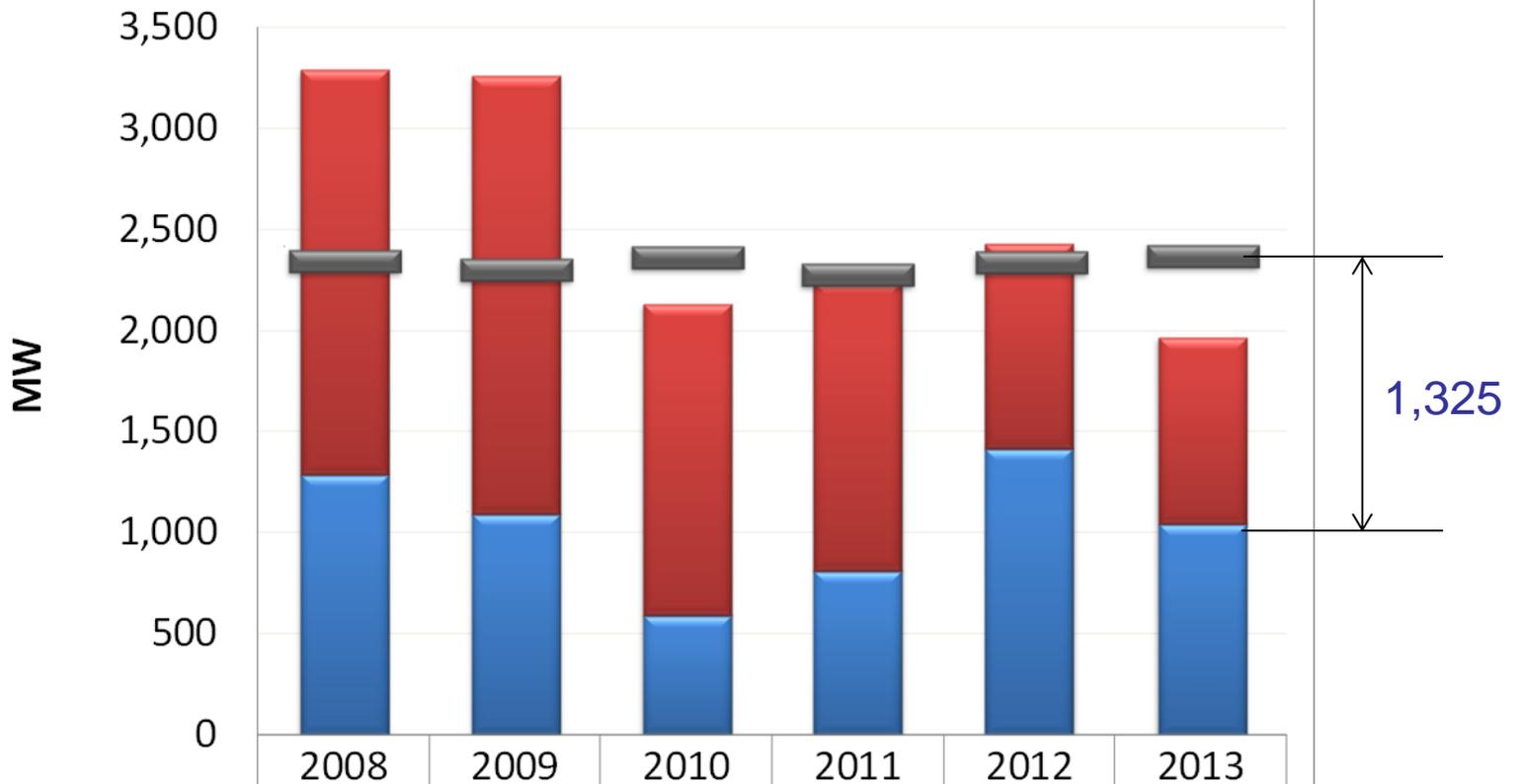
3. DR Support

- Enabling technologies (AutoDR)
- Emerging technologies, pilots, and special projects (HAN & PLS)
- Evaluation, Marketing & Education, Flex Alert
- Integrated Demand-Side Management (IDSM)





2008- 2013 DR Load Impact



	2008	2009	2010	2011	2012	2013
■ Emergency	2,007	2,172	1,544	1,428	1,010	924
■ Price-Responsive	1,287	1,095	589	814	1,420	1,046
— 5% Target	2,345	2,302	2,368	2,277	2,342	2,371





Challenges with Current DR Framework

Supply-Side

**Reliable,
Flexible, & Fast
Resources**



Demand-Side

**Sustainable DSM
Programs**



DR is valued under a single framework





Resource Planning Challenges

- 1. DR Performance – reliability**
 - May 1, 2013 Staff Report
- 2. DR Usefulness – alignment with short term & long-term system reliability requirements**
 - Limited availability
 - Not flexible
 - Not fast enough
- 3. Integration with the CAISO Wholesale Energy Market**
 - Not bid in to the market and dispatched by CAISO
 - Triggered DR is self-scheduled and reduces load





DR Provider and Customer Challenges

1. Program Design & Operation

- DR is not a generator
- Customers have different needs and abilities
- Customers may not be prepared for recent program changes

2. Regulatory Challenges

- Funding cycle too short
- Funding uncertainty

3. Customer Participation

- Time differentiated rates (residential sector on tiered rates)
- Marketing & Education (confusion with EE/DG/Flex Alert)
- Access to information (HAN access recently started)



Future of Demand Response?

Supply-Side

Reliable Resource
integrated with
CAISO Market

1. Existing retail DR (e.g. CBP, AMP, AC, DBP, BIP)
2. New wholesale DR by 3rd-parties
3. New wholesale DR by utilities



2015



Pathway

2016 - 2017



2018 & Beyond

Demand-Side

Customer-Focused
Programs/Rates

1. Other existing or new retail DR
 2. Dynamic Rates
 3. DR support
 4. Marketing etc.
 5. IDSM
- By utilities & 3rd parties





New Goals & Framework

- 1. Supply-side:** Reliable and flexible DR that meets system planning & operational requirements
 - Targets/rules aligned w/ RA/LTPP/TPP requirements to avoid replacing/building infrastructure, focus on SONGS areas.
 - Enable/Increase retail DR direct participation in CAISO
 - Mechanism for DR capacity payment
- 2. Demand-side:** Sustainable customer participation
 - Encourage enabling technologies, transition to supply-side DR
 - Create “Customer-Focused Programs” to capture soft DR benefits (incl. integrated DSM, e.g., EE, DG, & water)
 - Transition residential customers to time-differential rates





CPUC Procedural Roadmap for DR

- 1. Finalize Rule 24 – by Fall 2013**
- 2. Open New DR Rulemaking – by Sept 2013**
 - Inter-agency coordination with CAISO & CEC to develop DR strategic plans (ST & LT policy goals, framework, & roadmap)
 - DR evaluation (incl. assessment of supply-side vs. demand-side) & cost-effectiveness reform
 - DR delivery model & cost recovery
 - Bridge funding year for 2015
 - Guidance for future DR program design
- 3. 2015 RA: Flexible Capacity Framework for DR – by June 2014**

