CPUC Vision for Demand Response Programs

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CEC Demand Response Workshop
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)
- Cap on Emergency DR Programs (2010)
- 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

<table>
<thead>
<tr>
<th>Year</th>
<th>Emergency</th>
<th>Price-Responsive</th>
<th>5% Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>2,007</td>
<td>1,287</td>
<td>2,345</td>
</tr>
<tr>
<td>2009</td>
<td>2,172</td>
<td>1,095</td>
<td>2,302</td>
</tr>
<tr>
<td>2010</td>
<td>1,544</td>
<td>589</td>
<td>2,368</td>
</tr>
<tr>
<td>2011</td>
<td>1,428</td>
<td>814</td>
<td>2,277</td>
</tr>
<tr>
<td>2012</td>
<td>1,010</td>
<td>1,420</td>
<td>2,342</td>
</tr>
<tr>
<td>2013</td>
<td>924</td>
<td>1,046</td>
<td>2,371</td>
</tr>
</tbody>
</table>

The total impact for 2008-2013 is 1,325 MW.
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

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

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

Pathway

- 2015
- 2016 - 2017
- 2018 & Beyond
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