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<th><strong>Docket Number:</strong></th>
<th>17-IEPR-12</th>
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<tr>
<td><strong>Project Title:</strong></td>
<td>Distributed Energy Resources</td>
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<td><strong>TN #:</strong></td>
<td>218220</td>
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<tr>
<td><strong>Document Title:</strong></td>
<td>Presentation - Demand Response and Energy Efficiency Roadmap</td>
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<tr>
<td><strong>Description:</strong></td>
<td>Joint Agency Staff Workshop on the Review of the Actions and Status of State-level Energy Roadmaps by Delphine Hou of California ISO and the California Energy Commission</td>
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<td><strong>Filer:</strong></td>
<td>Doris Yamamoto</td>
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<td><strong>Organization:</strong></td>
<td>California Energy Commission</td>
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<td><strong>Submitter Role:</strong></td>
<td>Commission Staff</td>
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<td><strong>Submission Date:</strong></td>
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Joint Agency Staff Workshop on the Review of the Actions and Status of State-level Energy Roadmaps: Demand Response and Energy Efficiency Roadmap

Delphine Hou
Manager, State Regulatory Affairs, California ISO

Joint Staff Workshop
California Public Utilities Commission
June 13, 2017
Demand Response and Energy Efficiency Roadmap Goals

1. Ensure consistent assumptions in ISO, CEC, and CPUC planning and procurement processes

2. Modify load shape to reduce resource procurement requirements, mitigate over-generation, and moderate ramp

3. Clarify ISO needs for DR and EE to be most effective in planning and operations

4. Ensure resources are procured and developing to meet capability, timing, and location needs

5. Increase DR program and pilot participation in ISO market developing operations experience and providing feedback for policy refinement
The Energy Commission’s EE/DR Programs
Overview of GFO 15-311

ADVANCING SOLUTIONS THAT ALLOW CUSTOMERS TO MANAGE THEIR ENERGY DEMAND THOUGH THE USE OF TRANSACTIVE SIGNALS
Development and Use of Transactive Signals

• The focus of this solicitation was to first develop a transactive signal and then test how various DR projects respond
• Specifically,
  • the technical aspects of this communication and response
  • to identify, inform and develop strategies for overcoming technical, institutional and regulatory barriers to expanding DR participation in California
  • to fund applied research and development projects that test and assess how groups or aggregations of distributed resources respond to current, planned and potential price signals.
• Awards were made in Three Categories
Category 3: Development of Transactive Signal

• Electric Power Research Institute, Inc.
  – Transactive Incentive Signals to Manage Electricity Consumption (TIME): A System for Transactive Load Management $499,997

*Working with Group 1 and 2 awardees, EPRI is developing the actual signal to be sent, received and evaluated for customer response by the other grant recipients*
Category 1: DR as a supply-side resource in CAISO Markets

- BMW of North America, LLC
  - Total Charge Management: Advanced Charge Management for Renewable Integration $3,999,900

- Center for Sustainable Energy

- OhmConnect, Inc.
  - Empowering Prosumers to Access Wholesale Energy Products $3,995,028
Category 2: DR as Demand Side Resources

- Electric Power Research Institute, Inc. (EPRI)
  - Customer-centric Demand Management using Load Aggregation and Data Analytics
    $3,998,587

- Alternative Energy Systems Consulting, Inc. (AESC)
  - Residential Intelligent Energy Management Solution: Advanced Intelligence to Enable Integration of Distributed Energy Resources
    $3,996,597

- The Regents of the University of California (Berkeley)
  - Customer-controlled, Price-mediated, Automated Demand Response for Commercial Buildings
    $4,000,000

- Universal Devices, Inc.
  - Complete and Low Cost Retail Automated Transactive Energy System (RATES)
    $3,187,370

- The Regents of the University of California (UCLA)
  - Identifying Effective Demand Response Program Designs for Small Customer Classes
    $2,007,875
Energy Storage Roadmap Activity Update

Public Comment