Overview of CPUC Energy Oversight

• The CPUC regulates the investor-owned electric and gas utilities in California that collectively serve over two-thirds of total electricity demand and over three-quarters of natural gas demand throughout California.

• The CPUC has played a key role in making California a national and international leader on a number of energy related initiatives designed to benefit consumers, protect the environment, and support California’s economy.

• The CPUC develops and administers energy policy and programs to serve the public interest and ensures compliance with decisions and statutory mandates.
AB 2514 (Skinner, 2010)

- Directed CPUC to open a proceeding to:
  - Adopt procurement targets, *if appropriate*, for each LSE* to procure viable & cost-effective energy storage
- CPUC to re-evaluate its determinations every three years
- Future IOU Renewable Portfolio Standard (RPS) plans must comply w/ storage OIR decision

*LSE = Load serving entity*
Energy Storage Rulemaking (R.10-12-007)

- Established framework of storage applications/use cases
  - 21 end uses / 7 use cases
  - Distinct types of storage considered from policy perspective

- Identified regulatory barriers to storage deployment

- Preliminary cost-effectiveness analysis of selected use cases by EPRI & CEC-funded DNV KEMA studies

- Proceeding relied on collaboration among stakeholders: IOUs, Storage Industry, ORA and NGOs
On October 17, 2013, the CPUC approved D. 13-10-040 to establish storage procurement targets and policies for load-serving entities (utility & non-utility):

- **IOU targets**: 1,325 MW of storage by 2020 in 4 biennial solicitations (starting December 2014), as follows:
  - PG&E 580 MW
  - SCE 580 MW
  - SDG&E 165 MW

- **Above targets divided into three “storage grid domains”:**
  - Transmission-connected,
  - Distribution-level and
  - Customer-Side of the Meter applications;

- **Non-utility LSEs targets ~ 1% of peak load by 2020;**
# Storage Procurement Targets

## Energy Storage Procurement Targets (in MW)

<table>
<thead>
<tr>
<th>Storage Grid Domain</th>
<th>Point of Interconnection</th>
<th>2014</th>
<th>2016</th>
<th>2018</th>
<th>2020</th>
<th>Total</th>
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<tbody>
<tr>
<td><strong>Southern California Edison</strong></td>
<td>Transmission</td>
<td>50</td>
<td>65</td>
<td>85</td>
<td>110</td>
<td>310</td>
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<td>Distribution</td>
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<td>40</td>
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<td>Customer</td>
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<td>15</td>
<td>25</td>
<td>35</td>
<td>85</td>
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<tr>
<td><strong>Subtotal SCE</strong></td>
<td></td>
<td>90</td>
<td>120</td>
<td>160</td>
<td>210</td>
<td>580</td>
</tr>
<tr>
<td><strong>Pacific Gas and Electric</strong></td>
<td>Transmission</td>
<td>50</td>
<td>65</td>
<td>85</td>
<td>110</td>
<td>310</td>
</tr>
<tr>
<td></td>
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<td></td>
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<td>10</td>
<td>15</td>
<td>25</td>
<td>35</td>
<td>85</td>
</tr>
<tr>
<td><strong>Subtotal PG&amp;E</strong></td>
<td></td>
<td>90</td>
<td>120</td>
<td>160</td>
<td>210</td>
<td>580</td>
</tr>
<tr>
<td><strong>San Diego Gas &amp; Electric</strong></td>
<td>Transmission</td>
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<td>15</td>
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<td>Distribution</td>
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<td>Customer</td>
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</tr>
<tr>
<td><strong>Subtotal SDG&amp;E</strong></td>
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<td>20</td>
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<td>45</td>
<td>70</td>
<td>165</td>
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<tr>
<td><strong>Total - all 3 utilities</strong></td>
<td></td>
<td>200</td>
<td>270</td>
<td>365</td>
<td>490</td>
<td>1,325</td>
</tr>
</tbody>
</table>
Flexibility Allowed in Meeting Targets (1)

• After a solicitation, IOU may request a deferment of up to 80 percent of targets with an affirmative showing of:
  o Unreasonable cost burden or
  o Insufficient number of operationally viable project offers

• **Deferments added back in for the next solicitation**

• **Must make up delayed procurements by 2020**
Flexibility Allowed in Meeting Targets (2)

• Over-procurement in one year can be applied to subsequent solicitation

• IOU can shift up to 80% of targets between T & D grid domains
  • No shifting of target into or out of the customer-side domain

• No portion of the procurement targets can be traded among the utilities.
Project Eligibility

- Eligible storage projects must address one or more policy goals:
  - Grid optimization
  - Integration of renewable energy; and
  - Reduction of GHG emissions

- Procurements in other proceedings/programs can be counted

- Pumped Storage >50 MW not eligible

- To count against targets, projects must be:
  - Installed and operational after January 1, 2010
  - In operation no later than December 31, 2024
Additional Directives in the Decision

- **Utility procurement applications due March 1, 2014 for first competitive solicitation to be held in December 2014**
  - Proposed types of storage resources to be procured, including Quantities and Operational requirements
  - Proposed procurement details, including PPAs
  - Bid evaluation protocols

- **Utility-owned storage limited to 50% of cumulative targets across all grid domains**

- **CPUC staff is ordered to conduct a comprehensive evaluation of the program in 2016 and 2019**
Where we are now

• Utilities filed applications containing procurement plans on March 1\textsuperscript{st}.
  – CPUC is currently reviewing applications and will consider additional stakeholder comments before approving.

• Pending approval of the procurement plans, the utilities will issue the first RFO in December 2014
Thank you!

For Additional Information:

www.cpuc.ca.gov

“energy storage” web page