State and Local Partners for a Clean and Green California

Statewide Energy Efficiency Collaborative Conference, Sacramento, California

Mark Ferron
California Public Utilities Commission
June 20, 2013
State Agency Coordination in Energy and Climate Policy

- Provide safe, clean air to all Californians
- Protect the public from toxic air contaminants
- Reduce emissions of GHG
- Provide leadership and innovative approaches to air pollutions rules
- Set electricity rates
- Protect consumers
- Guide procurement practices and EE/DR policies
- Ensure electric system reliability
- Oversee investor-owned utilities
- Forecast energy needs
- License plants > 50 MW
- Develop appliance and building standards
- Promote Research and Development
- Plan and direct energy emergency response
- Oversee municipal utilities
- Operate the grid reliably and efficiently
- Provide fair and open transmission access
- Promote environmental stewardship
- Facilitate effective markets and promote infrastructure development
Local Government Role in Energy and Climate Policy

- Land Use Strategies: e.g., Permitting and integrated planning, Smart Cities and Smart Growth
- Transportation Strategies: e.g., EV charging
- Building strategies: enforcement of standards, retrofitting, street light control
- Water and Waste Management
- Local and distributed generation
- Community Procurement: e.g., Community Choice Aggregation
- Community energy district financing
- Workforce Training and Consumer Education
- Emergency Preparedness / Disaster Prevention and Recovery
- Local coordination and implementation of Energy Efficiency programs
The “Loading Order” sets priorities for California’s procurement strategy

- **Efficiency and Demand Response**
- **Renewable Energy (including distributed)**
- **Clean and Efficient Fossil-Fired Energy**
Energy Efficiency is critical for Our Energy Policy and Climate Goals


EIX Q1 2013 Results report to Analysts, April 2013
Our EE Programs address many sectors and types

<table>
<thead>
<tr>
<th>BY SECTOR</th>
<th>Budget Savings ($)</th>
<th>Savings (GWh)</th>
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</thead>
<tbody>
<tr>
<td>Agricultural</td>
<td>79</td>
<td>248</td>
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<tr>
<td>Commercial</td>
<td>510</td>
<td>1,112</td>
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<tr>
<td>Industrial</td>
<td>211</td>
<td>487</td>
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<tr>
<td>Residential</td>
<td>328</td>
<td>571</td>
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<td>Govt Partnerships</td>
<td>256</td>
<td>267</td>
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<td>Cross Cutting</td>
<td>585</td>
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<table>
<thead>
<tr>
<th>BY PROGRAM TYPE</th>
<th>Budget ($M)</th>
<th>Savings (GWh)</th>
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<tr>
<td>Codes and Standards</td>
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<td>870</td>
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<td>Third Party Programs</td>
<td>304</td>
<td>679</td>
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<td>Non-Residential Custom Projects</td>
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<td>647</td>
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<td>Government Partnerships</td>
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<td>Lighting Programs</td>
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<td>Financing Programs</td>
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<td>HVAC</td>
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<tr>
<td>Plug Load and Appliances</td>
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<td>Energy Advisor Program</td>
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<td>Whole House Program</td>
<td>80</td>
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<td>Non-Res Deemed Incentives</td>
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<td>224</td>
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<tr>
<td>New Construction</td>
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<td>Direct Install</td>
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<td>41</td>
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<tr>
<td>Multi Family Rebates</td>
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<tr>
<td>RENs and CCAs</td>
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<td>98</td>
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<td>Workforce Education &amp; Training</td>
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<td>Emerging Technology Programs</td>
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<td>Continuous Energy Improvement</td>
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<tr>
<td>Marketing, Outreach &amp; Education</td>
<td>14</td>
<td>0</td>
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<tr>
<td>IDSM</td>
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<table>
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<tr>
<th>BY PROGRAM DELIVERY</th>
<th>Budget ($M)</th>
<th>Savings (GWh)</th>
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<tr>
<td>Statewide</td>
<td>1,166</td>
<td>2,027</td>
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<td>Third Party Gov't partnership</td>
<td>538</td>
<td>1,408</td>
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<tr>
<td>RENs/CCA</td>
<td>75</td>
<td>98</td>
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<tr>
<td>Local IOU</td>
<td>13</td>
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*Data from 2013-14 Portfolio Applications. Approved budget was reduced by $200 million
Challenges to California’s EE Programs

Declining IOU Portfolio Cost Effectiveness over time

2010-2012 Funding Sources At Risk

Add Comment on CAISO not including Uncommitted EE
Declining Savings from Lighting…

2010-2012 Electricity Savings by CA Investor Owned Utilities

Statewide Market Potential for Residential CFLs

Source: CPUC, Energy Efficiency Groupware Application (October 2012)

Source: Navigant Consulting, “CPUC Potentials, Goals and Targets Study” (March 2012)
... but Growing Potential Savings in Buildings

Source: Navigant Consulting, “CPUC Potentials, Goals and Targets Study” (March 2012)
Approval and Implementation Process for CPUC Energy Efficiency Programs

1. Assessment and Analysis
   - Staff

2. Guidance Decision
   - CPUC

3. Portfolio Development
   - Utilities
     - Third Parties
     - Local Govts

4. Portfolio Adoption
   - CPUC

5. Implementation
   - Utilities
     - Third Parties
     - Local Govts

6. Feedback to next Cycle

7. Incentive Payments
How much can we do and how fast?

Current Cycle (2010-12 + 2013)

- 2007: Assess
- 2008: Develop
- 2009: Implement
- 2010-2012: Bridge

Initial Proposal (2014-16)

- 2014-2015: Assess
- 2016: Develop
- 2017-2018: Implement

Start now (in 2011)...

... but change won’t happen until 3-4 years from now (after you’re gone)
How much can we do and how fast?

Cut the program cycle in half and make meaningful change in 2013 (“Transition”)
2013-2014 Transition Programs: Themes

• Expand deep retrofit strategies for existing building stock

• Leverage ratepayer energy efficiency funds with private financing

• Increase the delivery of efficiency programs by third parties, in particular, local governments

• Promote an integrated approach to Codes and Standards

• Encourage innovation
Expand retrofit strategies for the existing building stock

- **Commercial Sector (including MUSH)**
  - Commercial Energy Advisor Program (Audits) including DG, DR opportunities
  - Sub-metering and plug load control technology
  - Collect and use performance data
  - Include programs for municipal, university, schools and hospitals

- **Residential sector**
  - Promote statewide brand: “Energy Upgrade California”
  - Reduce the number and complexity of program while increasing savings targets
  - Residential HVAC Programs
  - Behavioral Programs
  - Added focus on hotter climate zones
Leverage ratepayer funds with private capital

Commitment of ~$200 million over 2 years

- Expansion of existing On-Bill Financing (OBF) programs
- Continuation of ARRA Programs
- Fast-track financing pilots for launch in 2013 and scale up in 2014
  - Single-family
  - Multi-family
  - Small business
  - On-Bill Repayment (OBR) for non-utility originated loan
Regional Energy Networks

- Local Government Administered programs
  - Avoid duplication with existing utility programs
  - Introduce new offerings into hard-to-reach markets
  - Leverage existing expertise
  - Build on existing experience with ARRA
- Act as a *laboratory* for new ideas

BayREN
$25m

SoCalREN
$44m
What will the RENs be doing in 2013-14?

- Increasing revolving loan capability
- Promoting knowledge transfer and technical assistance with items such as permitting and capability
- Marketing
- Code compliance and green building certification
- Targeting the moderate- to low-income populations and hard to reach populations
- Addressing multi-family buildings
- Bundled residential retrofit incentive programs
- Addressing workforce training issues
What next?

- 2013-14: Proof of Concept
  - RENs need to add value to the state’s EE efforts
- 2015 + beyond: demonstrate cost-effectiveness (i.e., TRC > 1.0)

We’re already gearing up for 2015!
How can we help you?

• Mark Ferron, Commissioner
  mark.ferron@cpuc.ca.gov

• Charlotte TerKeurst: Chief of Staff
  charlotte.terkeurst@cpuc.ca.gov

• Sara Kamins, Energy Advisor
  sara.kamins@cpuc.ca.gov

• Michael Colvin, Energy and Water Advisor
  michael.colvin@cpuc.ca.gov

• Charlyn Hook, Legal Advisor
  charlyn.hook@cpuc.ca.gov

More information:
http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/