



# 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 pollution 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



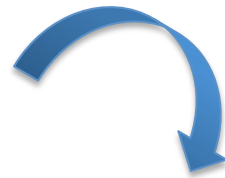
# Local Government Role in Energy and Climate Policy

- ✓ 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

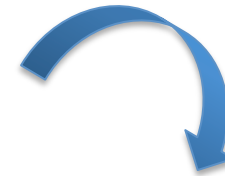


# The “Loading Order” sets priorities for California’s procurement strategy

**Efficiency and  
Demand Response**



**Renewable Energy  
(including distributed)**



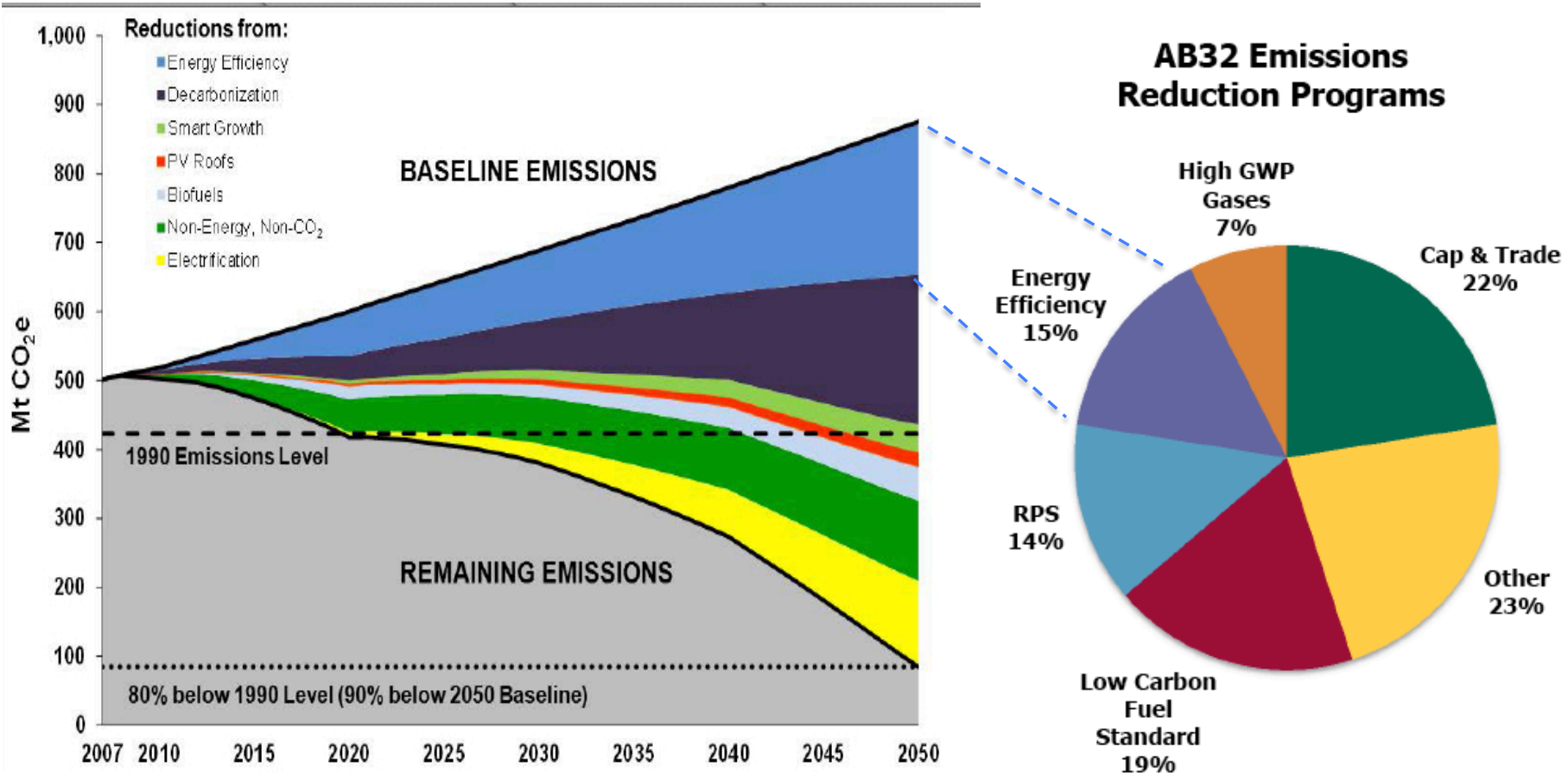
**Clean and Efficient  
Fossil-Fired Energy**







# Energy Efficiency is critical for Our Energy Policy and Climate Goals





# Our EE Programs address many sectors and types

## BY SECTOR

	Budget (\$ M)	Savings (GWh)
Agricultural	79	248
Commercial	510	1,112
Industrial	211	487
Residential	328	571
Govt Partnerships	256	267
Cross Cutting	585	1,019

## BY PROGRAM TYPE

	Budget (\$M)	Savings (GWh)
Codes and Standards	28	870
Third Party Programs	304	679
Non-Residential Custom Projects	265	647
Government Partnerships	256	267
Lighting Programs	228	890
Financing Programs	190	109
HVAC	140	221
Plug Load and Appliances	104	229
Energy Advisor Program	100	295
Whole House Program	80	25
Non-Res Deemed Incentives	64	224
New Construction	35	6
Direct Install	21	41
Multi Family Rebates	17	62
RENs and CCAs	75	98
Workforce Education & Training	63	7
Emerging Technology Programs	39	0
Continuous Energy Improvement	14	0
Marketing, Outreach & Education	14	0
IDSMS	8	0

## BY PROGRAM DELIVERY

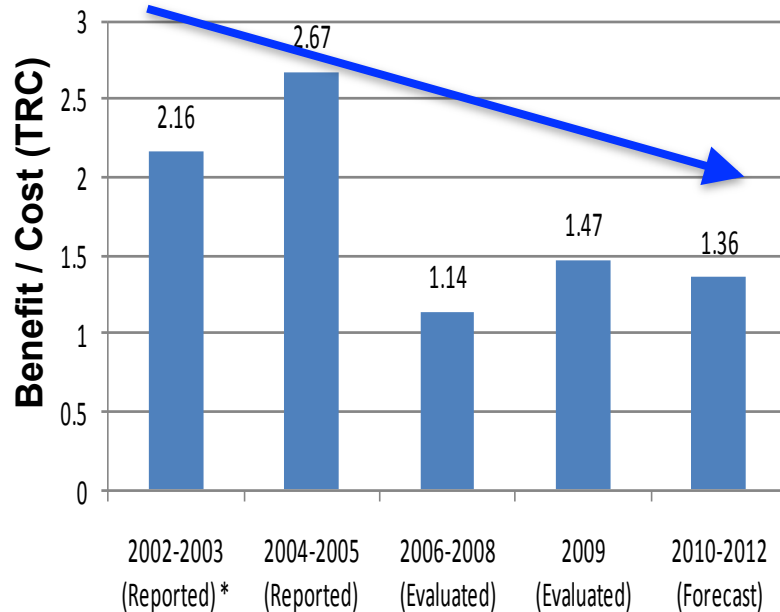
	Budget (\$ M)	Savings (GWh)
Statewide	1,166	2,027
Third Party	538	1,408
Gov't partnership	252	267
RENs/CCA	75	98
Local IOU	13	2

\*Data from 2013-14 Portfolio Applications. Approved budget was reduced by \$200 million



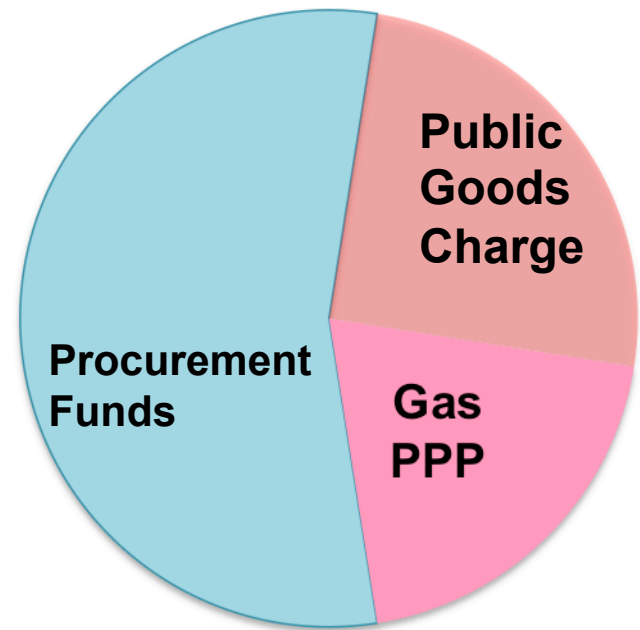
# Challenges to California's EE Programs

## Declining IOU Portfolio Cost Effectiveness over time



Portfolio  
Cycle

## 2010-2012 Funding Sources At Risk



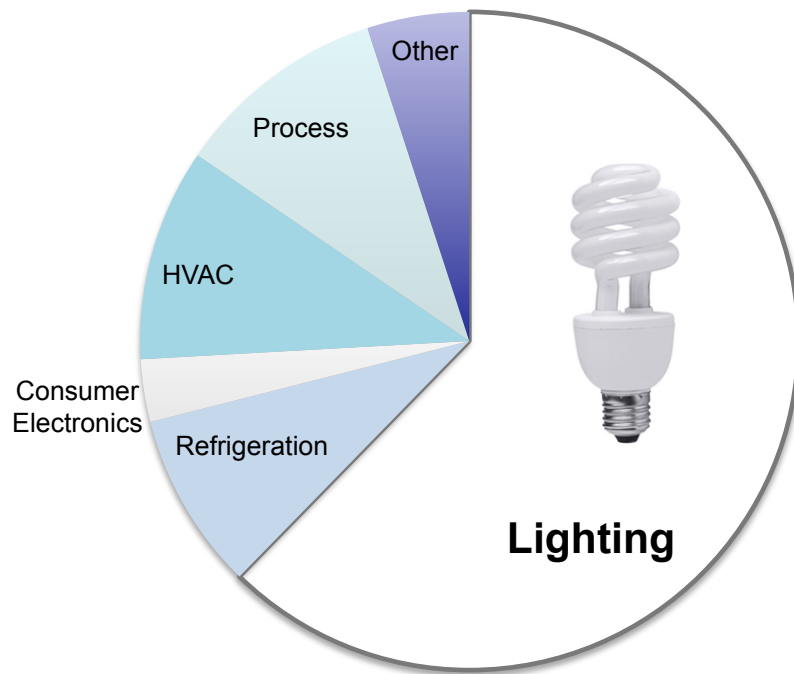
Add Comment on CAISO not including  
Uncommitted EE





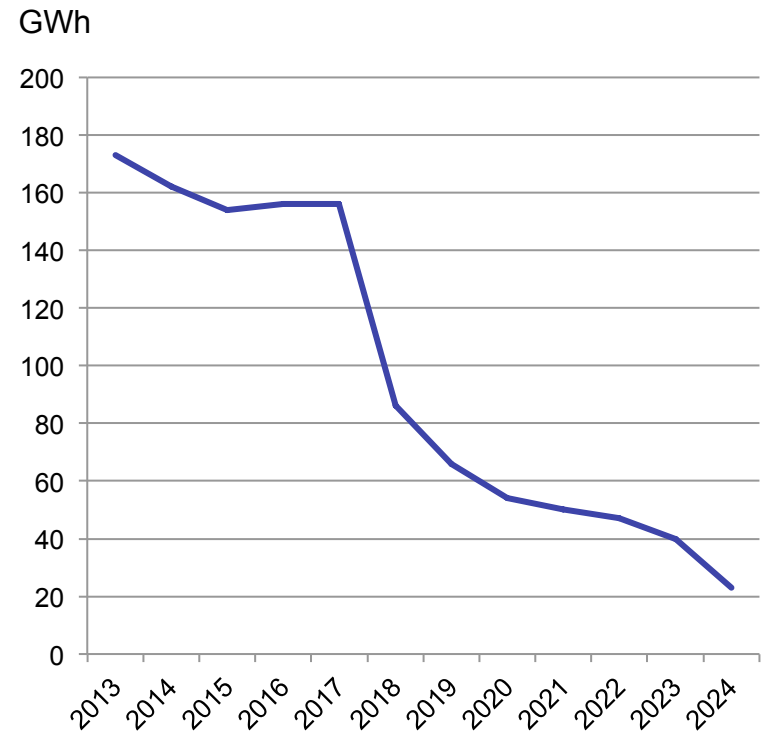
# Declining Savings from Lighting...

## 2010-2012 Electricity Savings by CA Investor Owned Utilities



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

## Statewide Market Potential for Residential CFLs



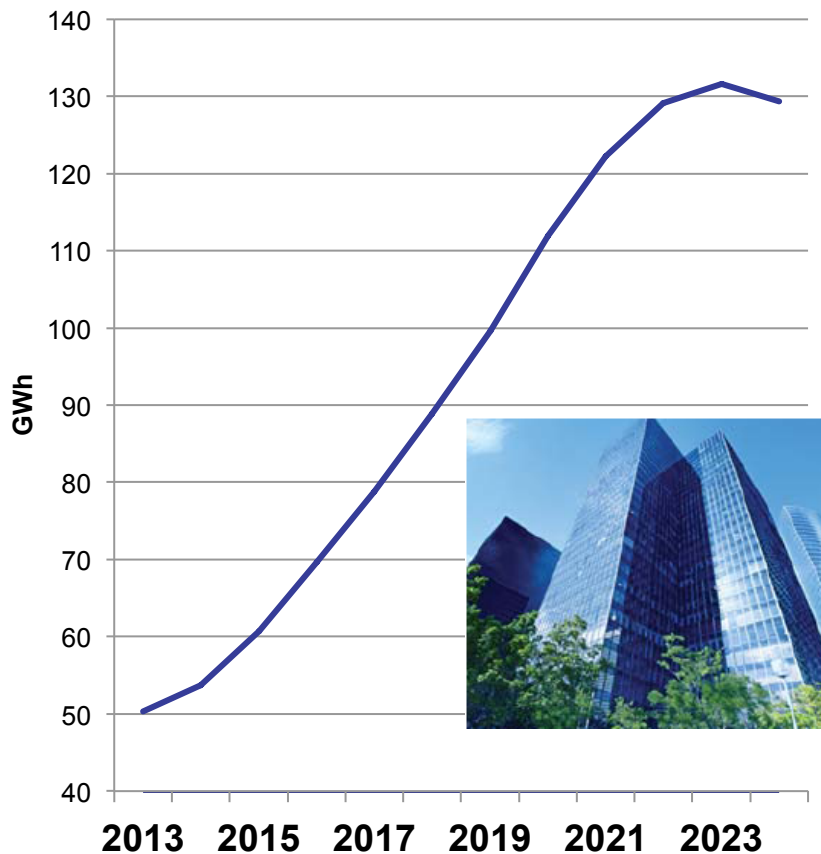
Source: Navigant Consulting, "CPUC Potentials, Goals and Targets Study" (March 2012)



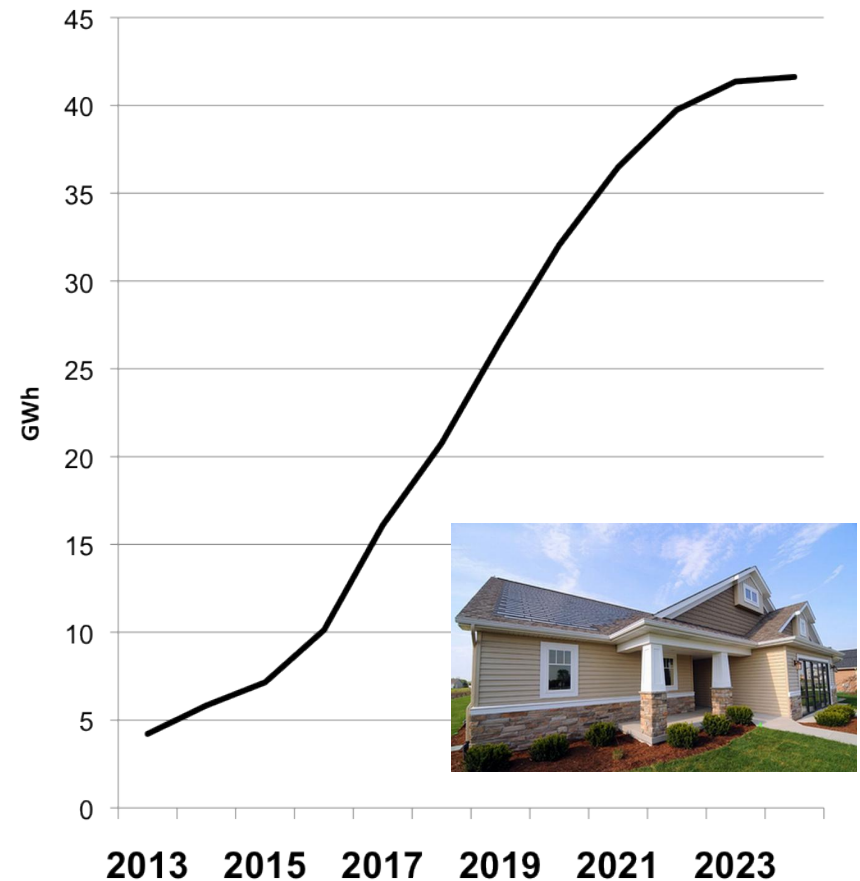


# ... but Growing Potential Savings in Buildings

## Commercial HVAC

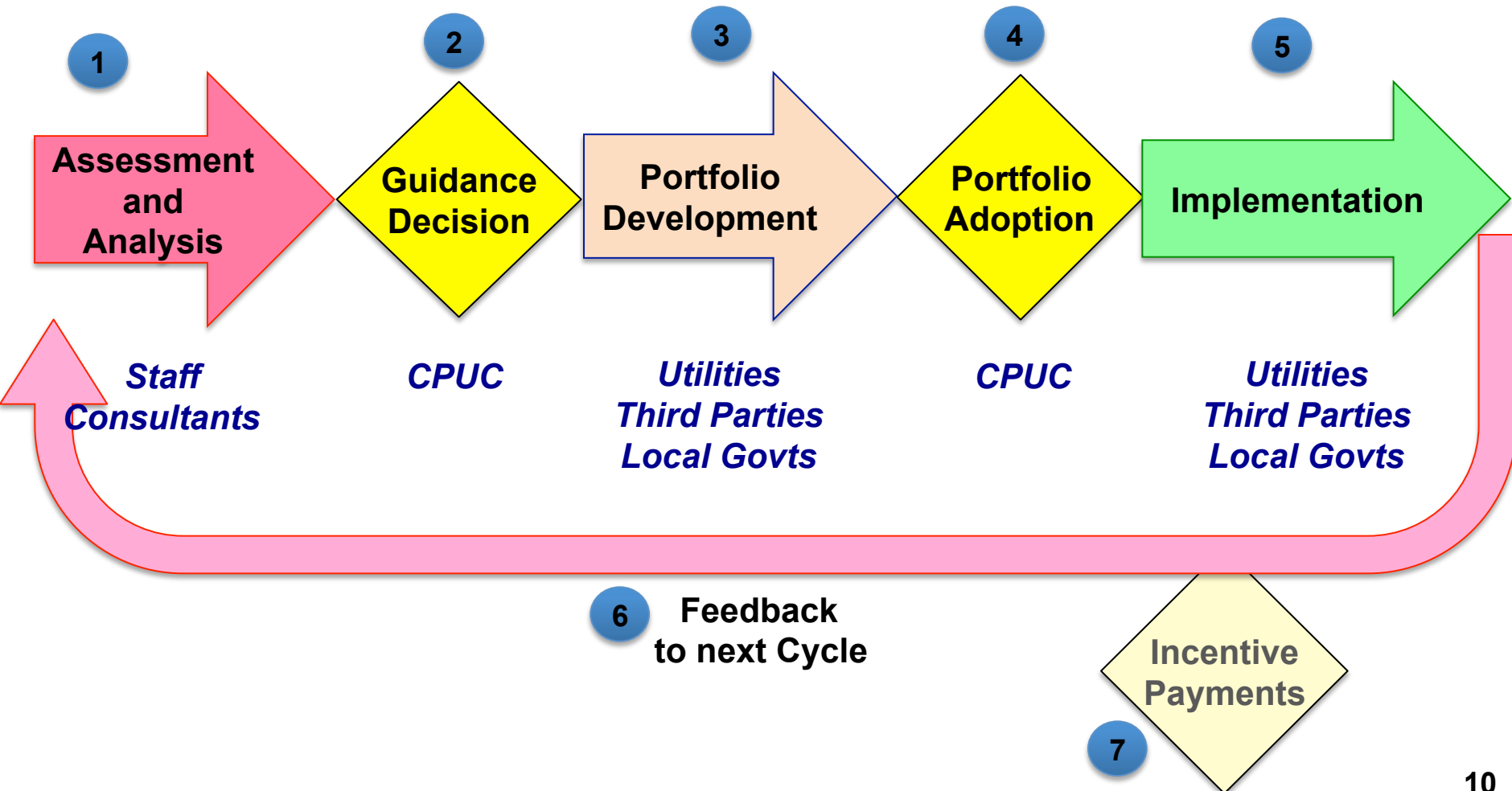


## Residential HVAC



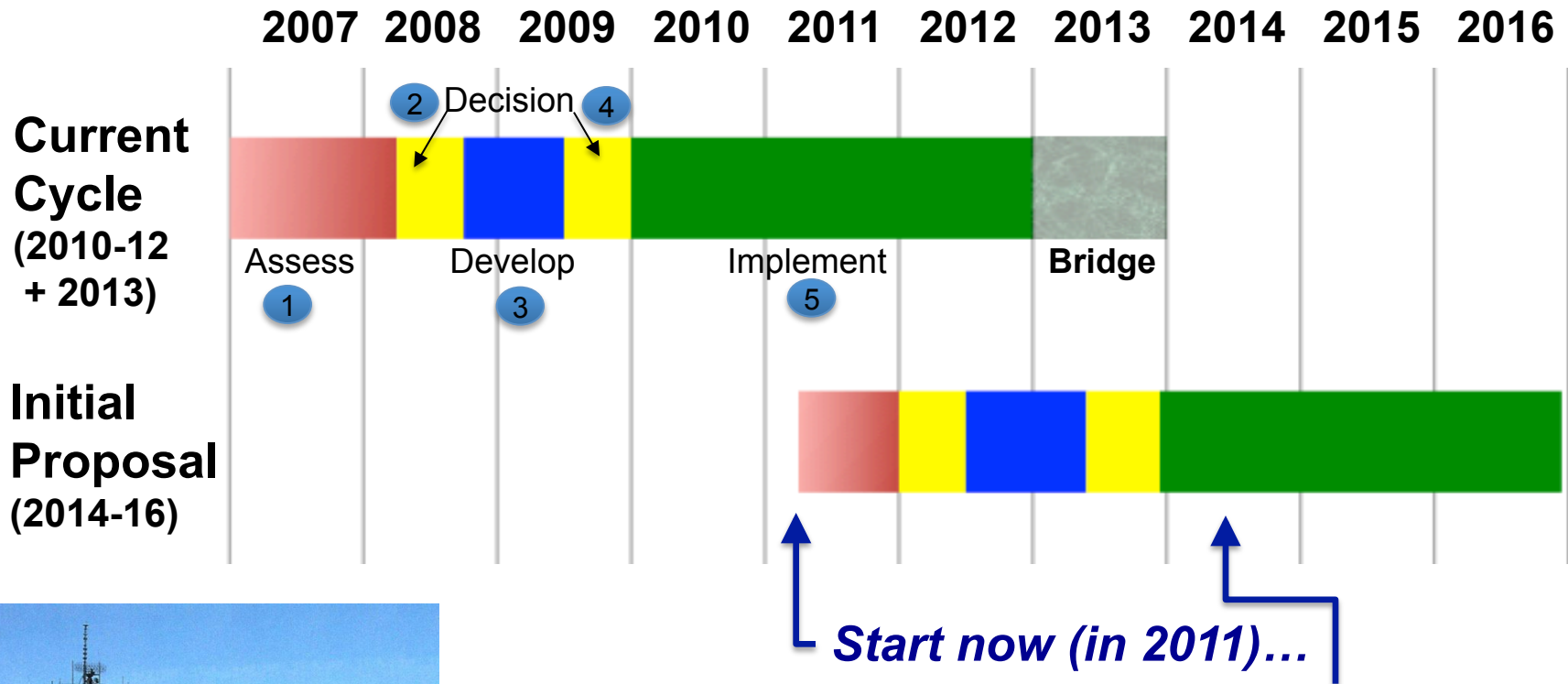


# Approval and Implementation Process for CPUC Energy Efficiency Programs





# How much can we do and how fast?

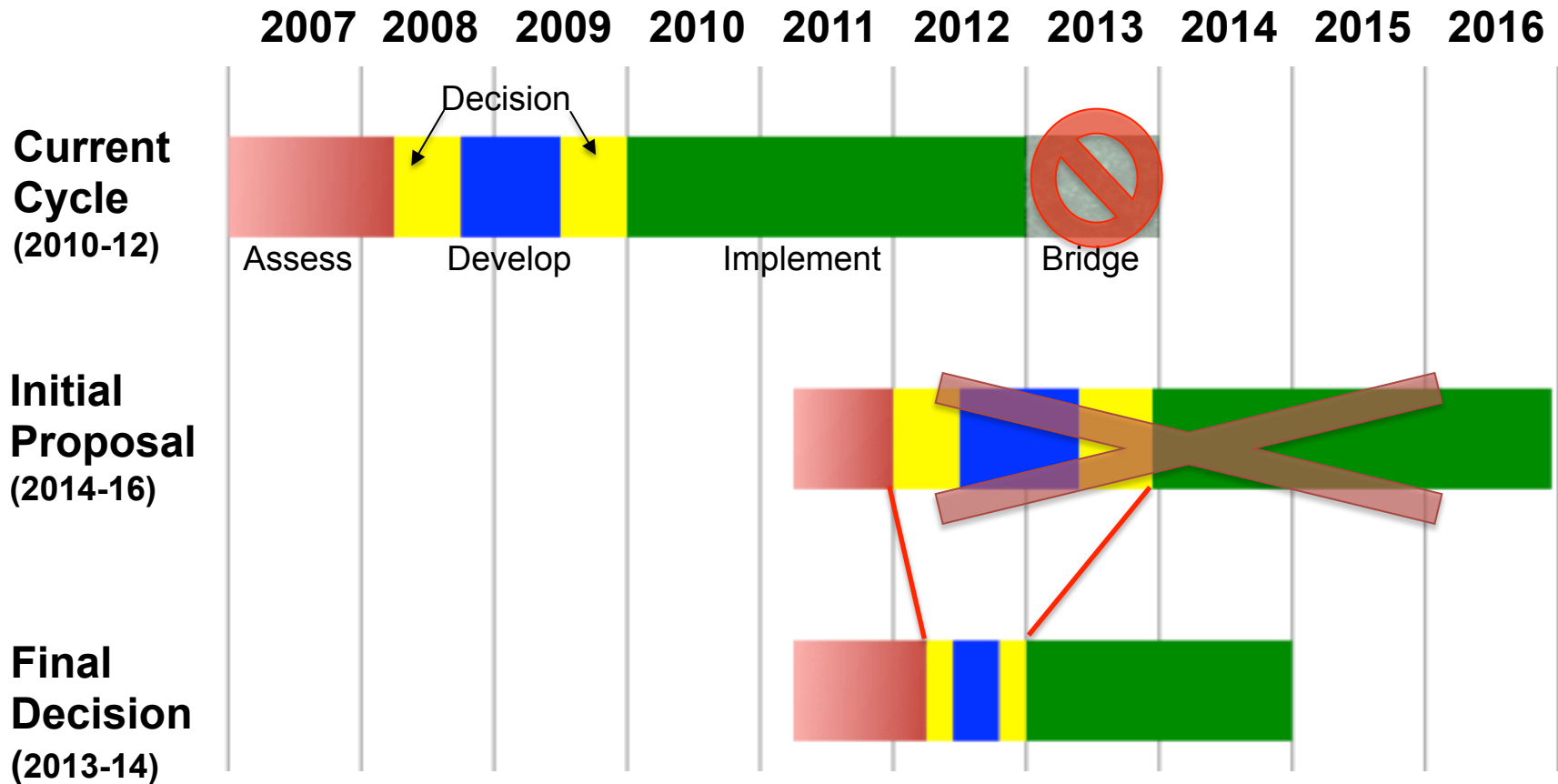


*... but change won't happen  
until 3-4 years from now  
(after you're gone)*





# 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

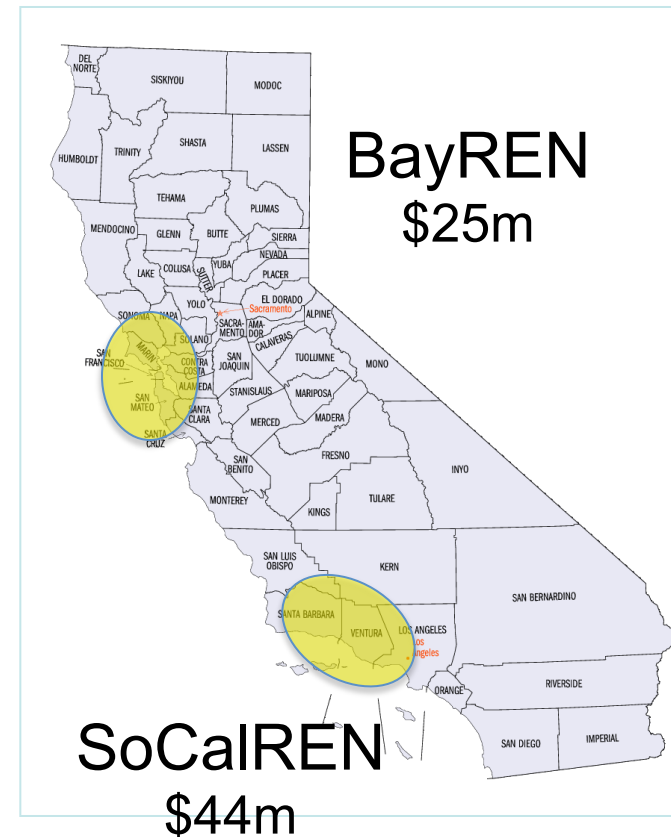
- Expansion of existing On-Bill Financing (OBF) programs
- Continuation of ARRA Programs
- Fast-track financing pilots for launch in 2013 and scale up in 2014
  - Single-family
  - Multi-family
  - Small business
  - On-Bill Repayment (OBR) for non-utility originated loan





# 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





# 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



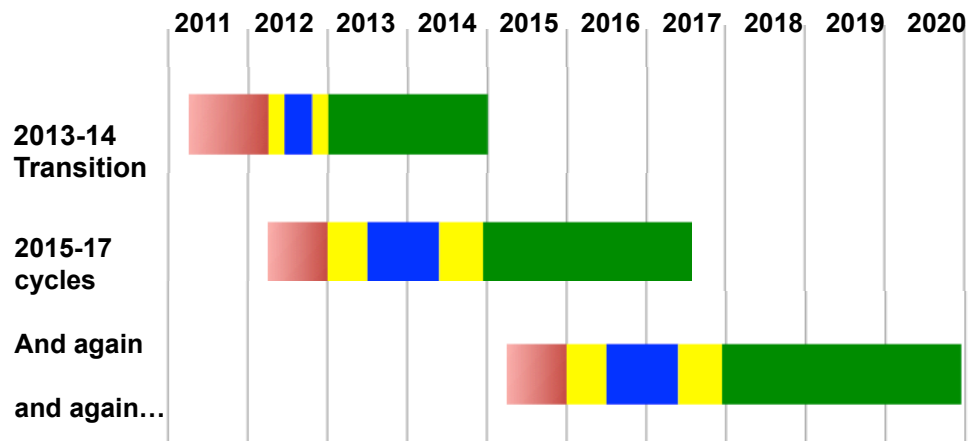


# What next?



- 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?

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**More information:**

**<http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/>**