Energy Efficiency in California: A Regulatory Perspective

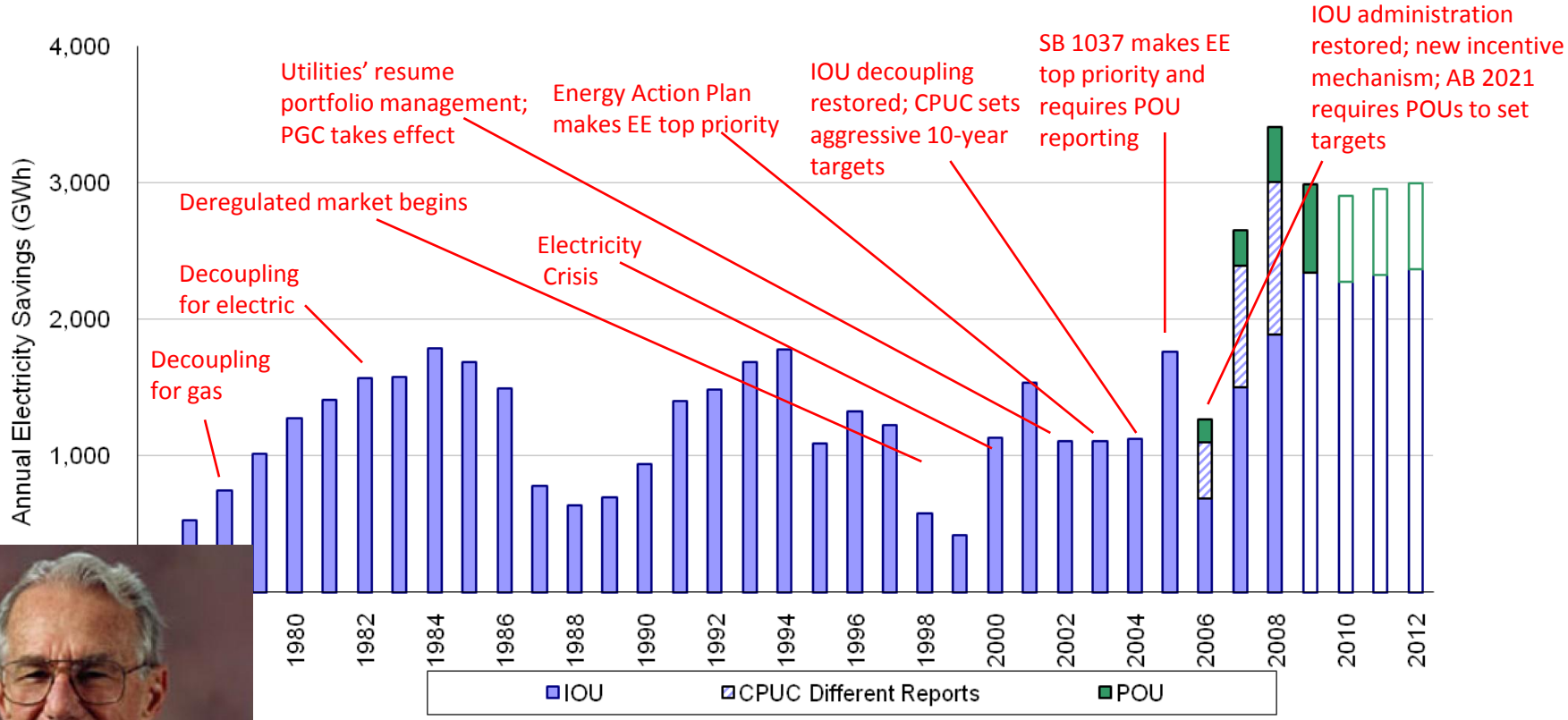
2012 Annual Meeting of the California Energy Efficiency Industry Council

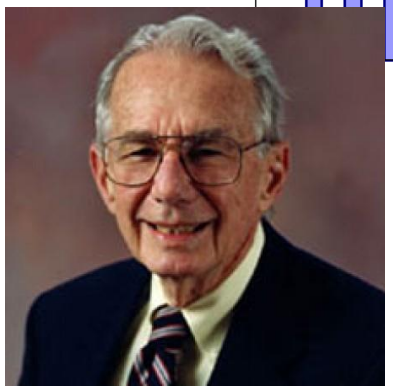
Mark Ferron

California Public Utilities Commission

November 9, 2012

California's History of Energy Efficiency Action

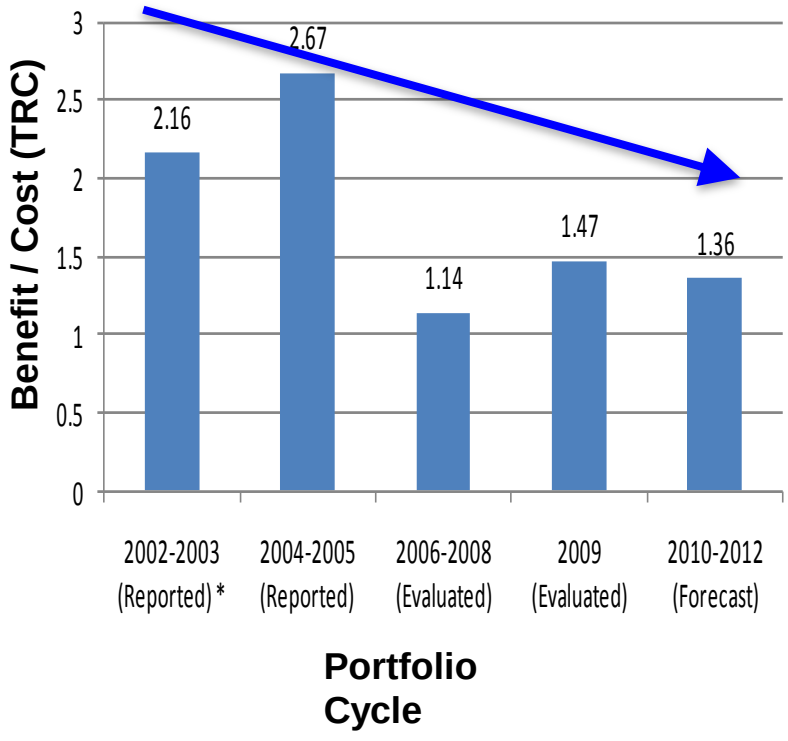




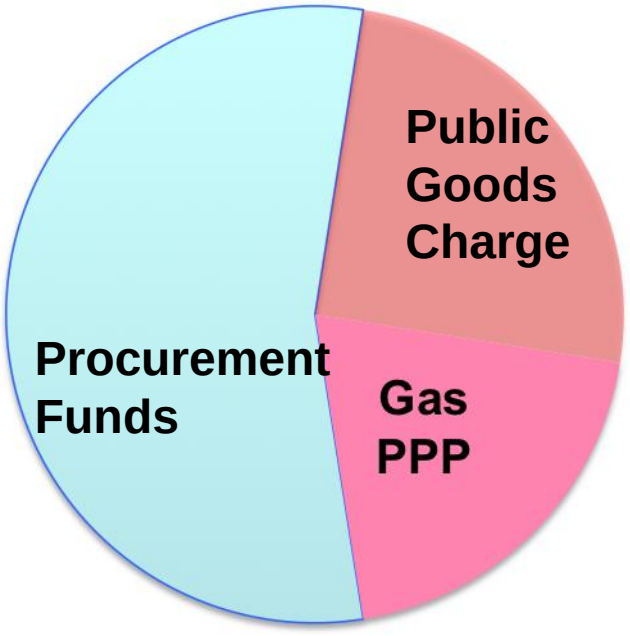
Source: Natural Resources Defense Council (NRDC), as modified by Energy Division 4/25/2011

Challenges to California's EE Programs

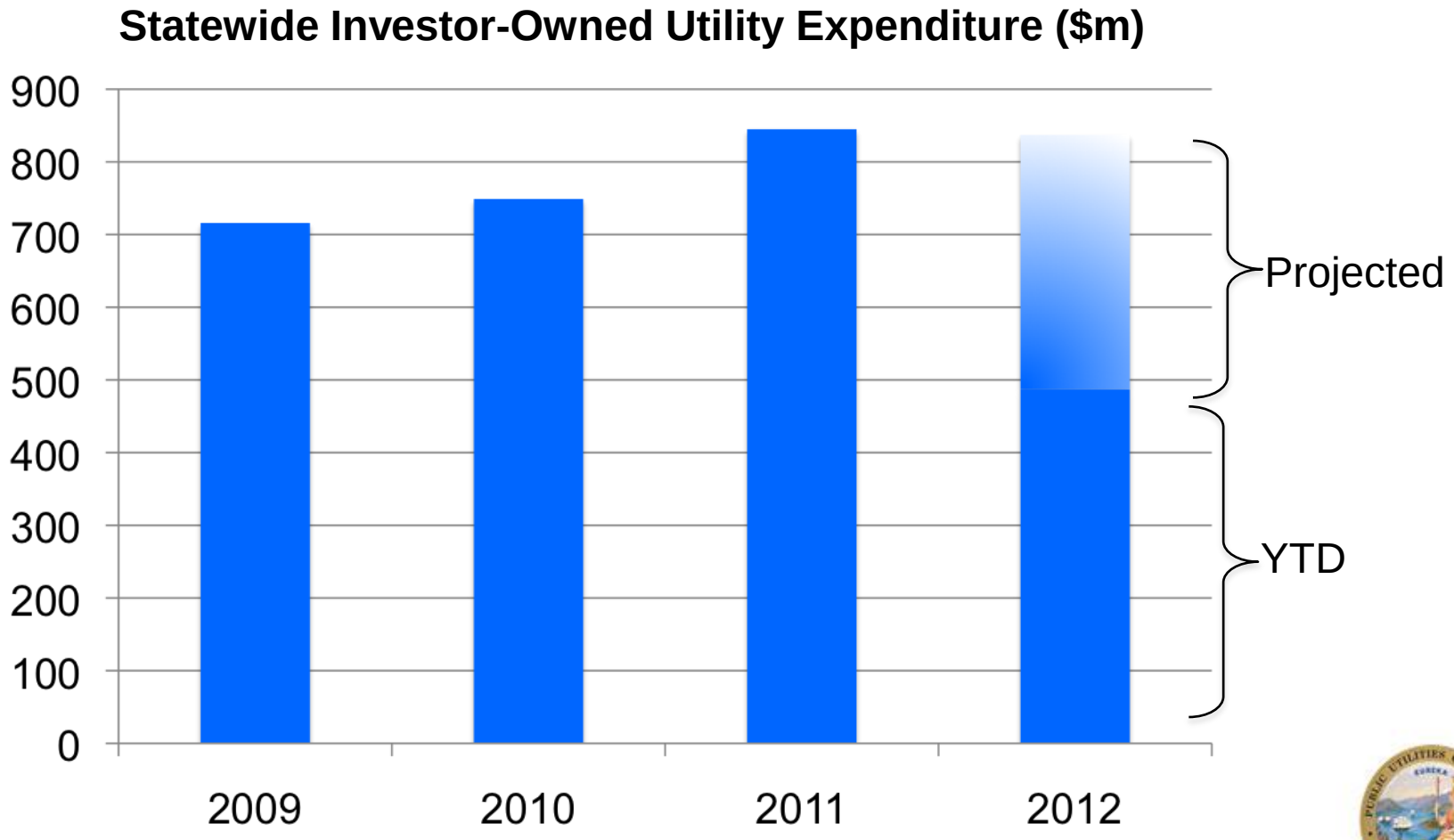
Declining IOU Portfolio Cost Effectiveness over time



2010-2012 Funding Sources At Risk

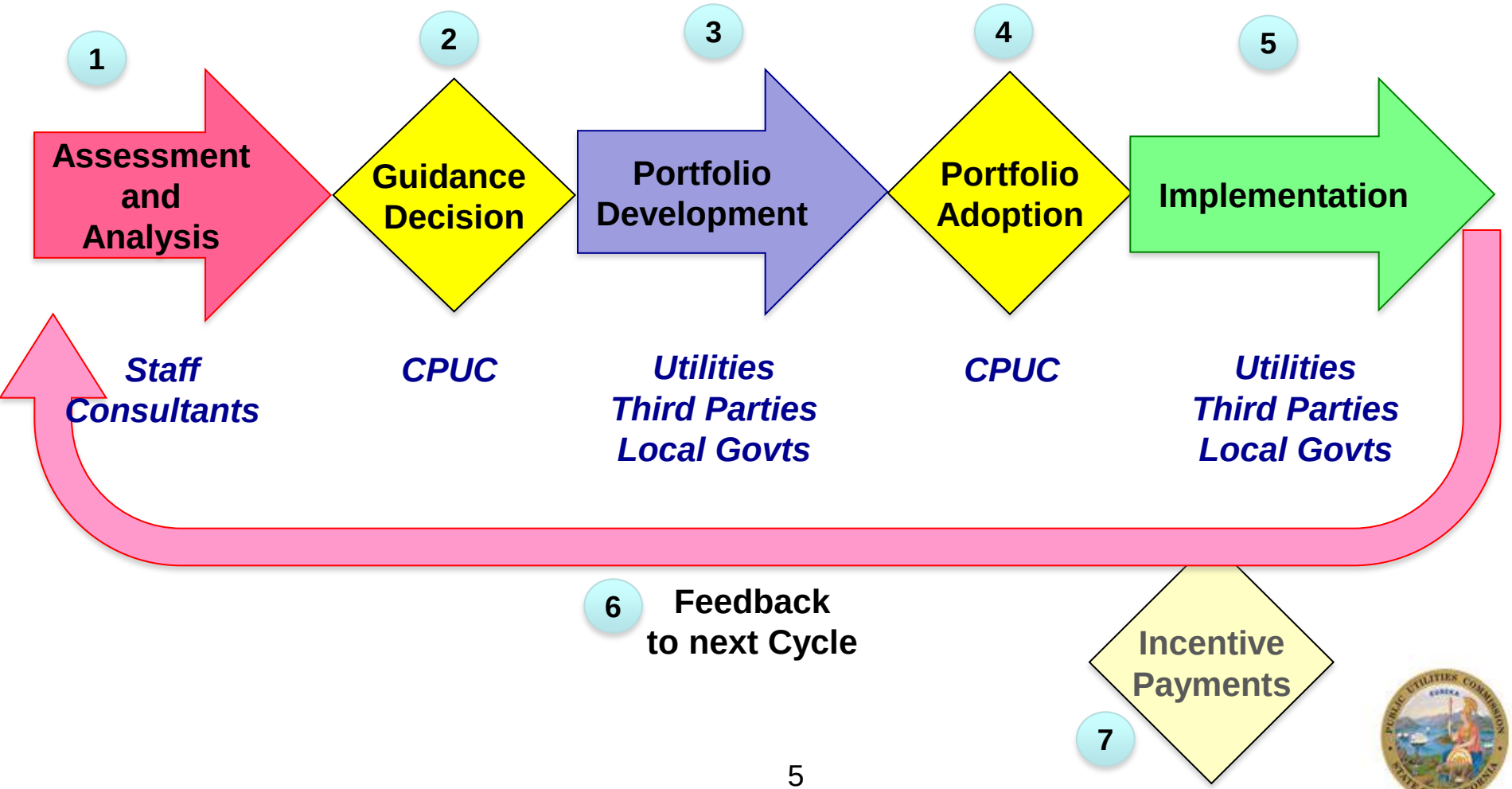


California's Expenditure on Energy Efficiency

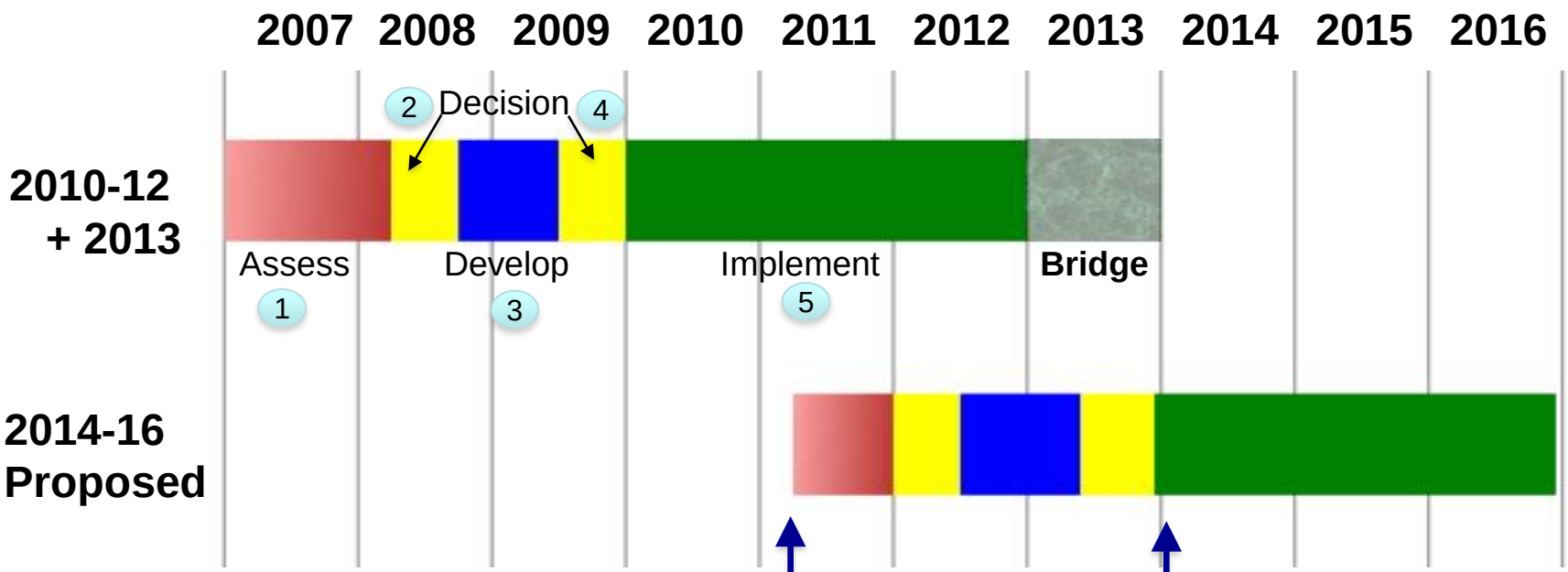


Source: California Energy Efficiency Groupware Application

Approval and Implementation Process for CPUC Energy Efficiency Programs



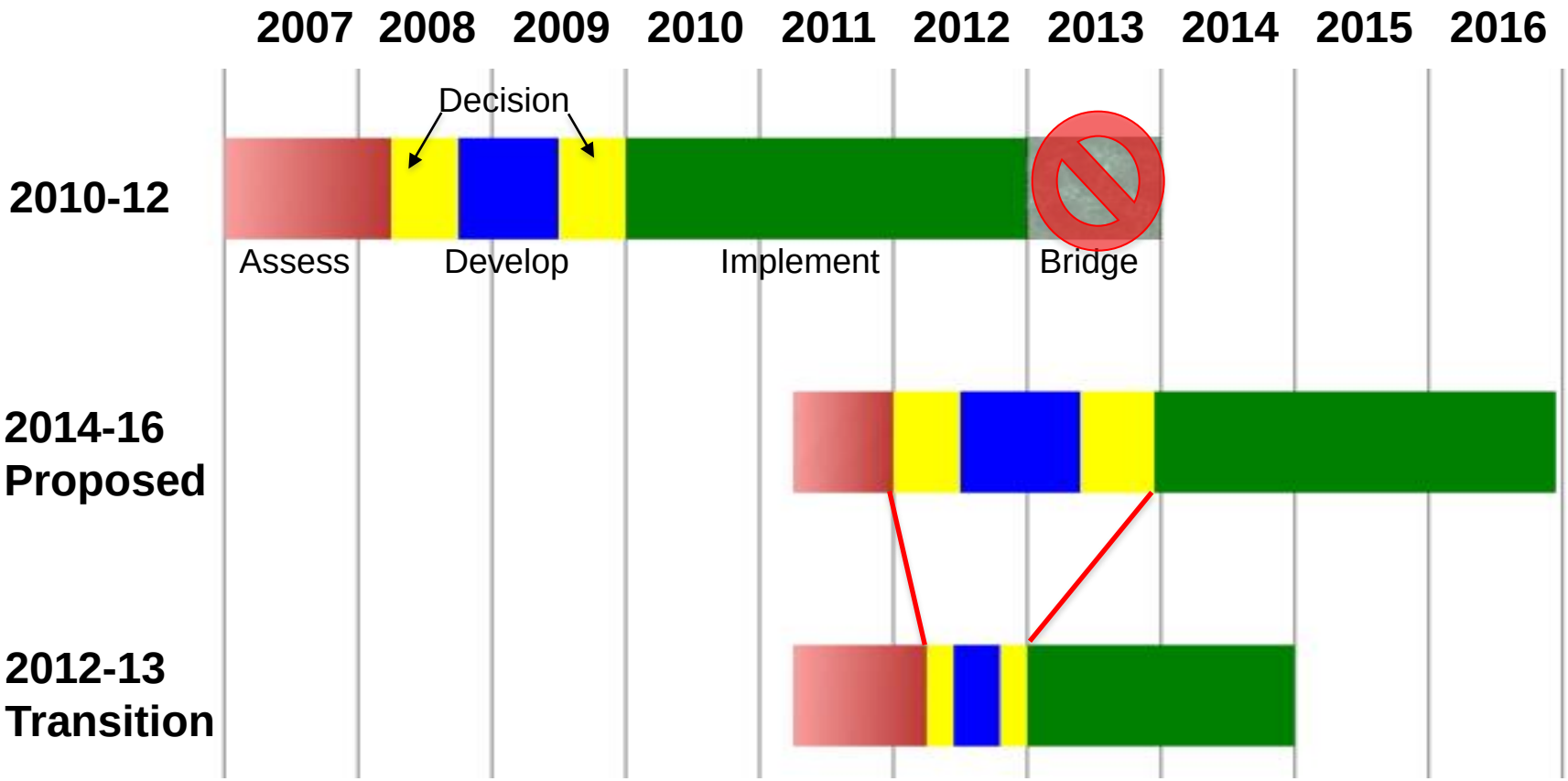
How much can we do and how fast?



Start now…

… but change won't happen until 3 years from now

How much can we do and how fast?



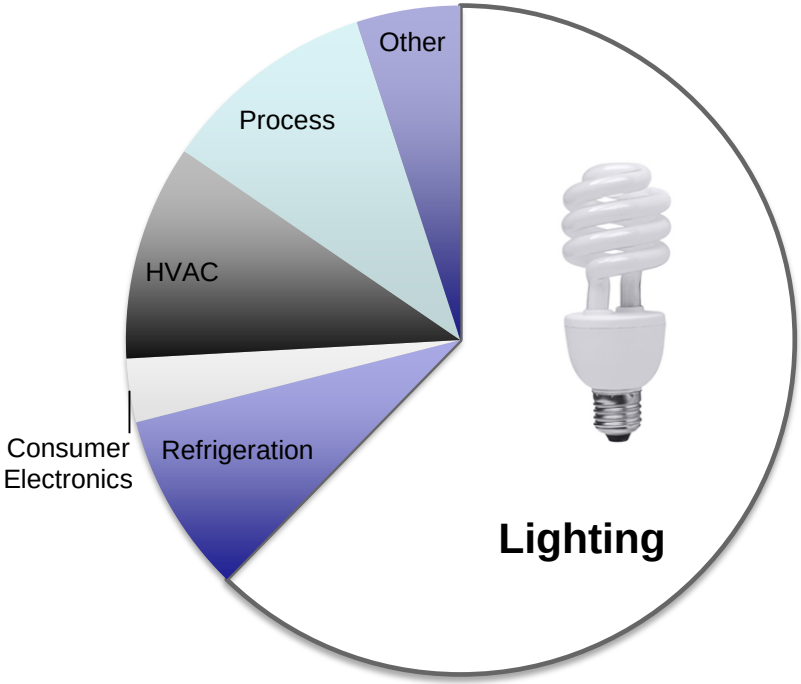
Not a "Bridge"
but a "Transition"

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 and local governments
- Promote an integrated approach to Codes and Standards
- Encourage innovation

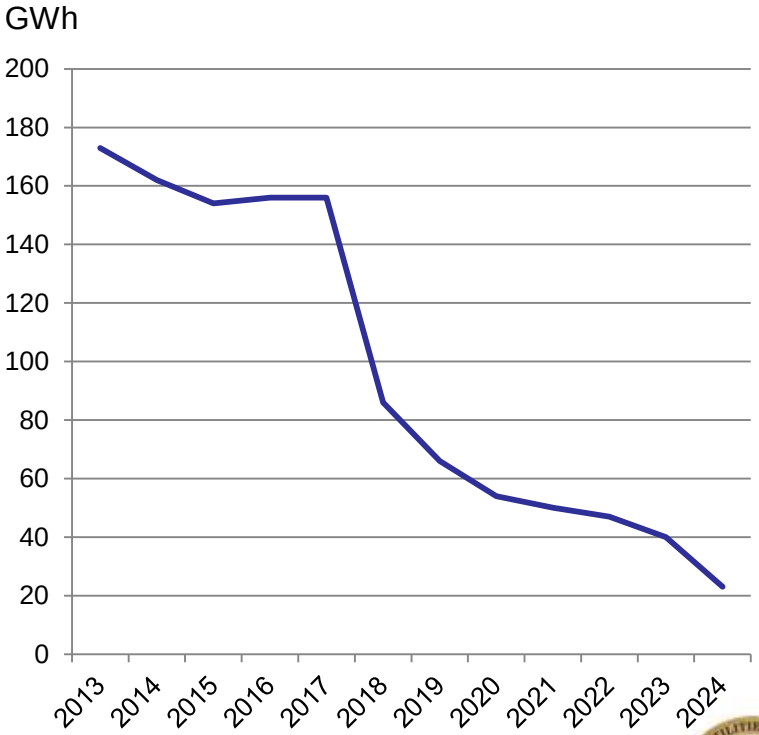
Declining Savings from Lighting…

2010-2012 Electricity Savings by CA Investor Owned Utilities



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

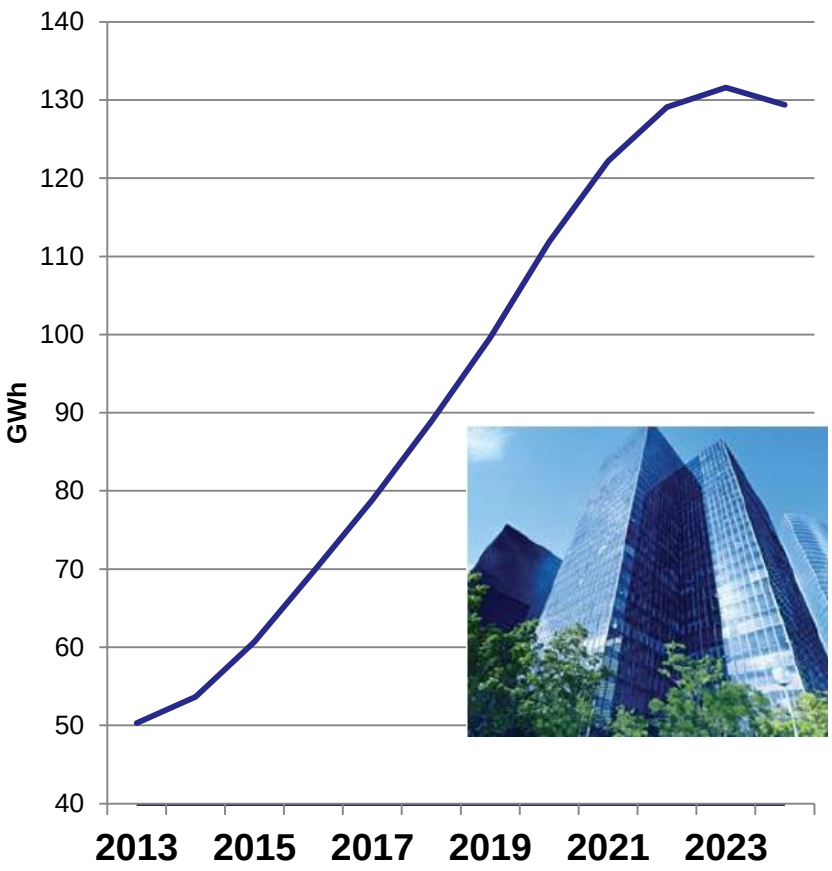
Statewide Market Potential for Residential CFLs



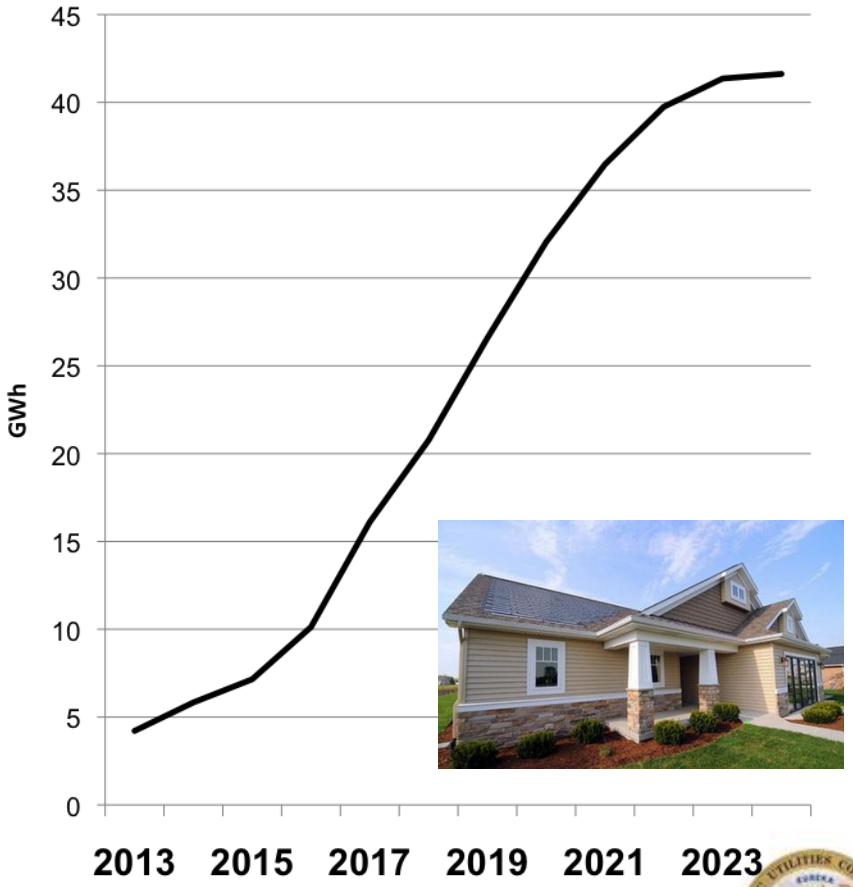
Source: Navigant Consulting, "CPUC Potentials, Goals and Targets Study" (March 2012)

... but Growing Potential Savings in Buildings

Commercial HVAC



Residential HVAC



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

Commercial Retrofit Programs

- Emphasize a “whole building approach” to commercial retrofits
- 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 Retrofit Programs

- Promote statewide brand: “Energy Upgrade California”
- Reduce the number and complexity of program while increasing savings targets
  - Middle Income Direct Install
  - Multi-Family Energy Efficiency Rebates
  - Residential HVAC Programs
  - Behavioral Programs
  - Basic CFL and Advanced Lighting “upstream” cost buy-downs
  - Added focus on hotter climate zones

energy upgrade™ CALIFORNIA

Reduce energy use. Save money. Create jobs.

Leverage ratepayer funds with private capital

Commitment of ~$200 million over 2 years

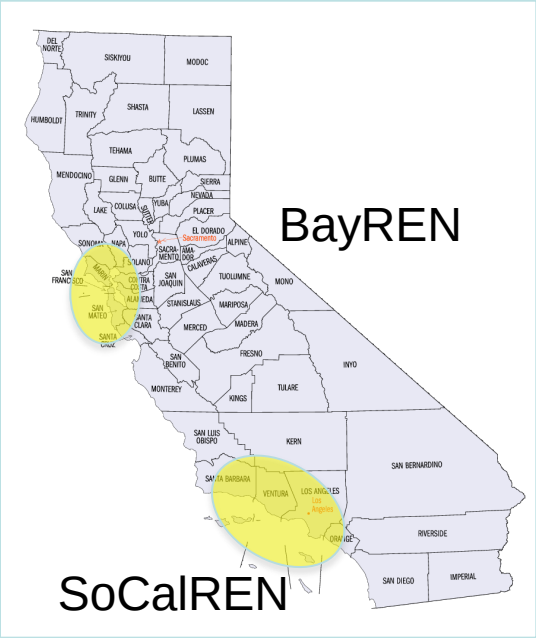
- Expansion of existing On-Bill Financing (OBF) programs
- Continuation of ARRA Programs
- Fast-track financing pilots for launch in 2013 and scale up in 2014
  - Single-family
  - Multi-family
  - Small business
  - On-Bill Repayment (OBR) for non-utility originated loan

Financing as Tool; Not "Silver Bullet"

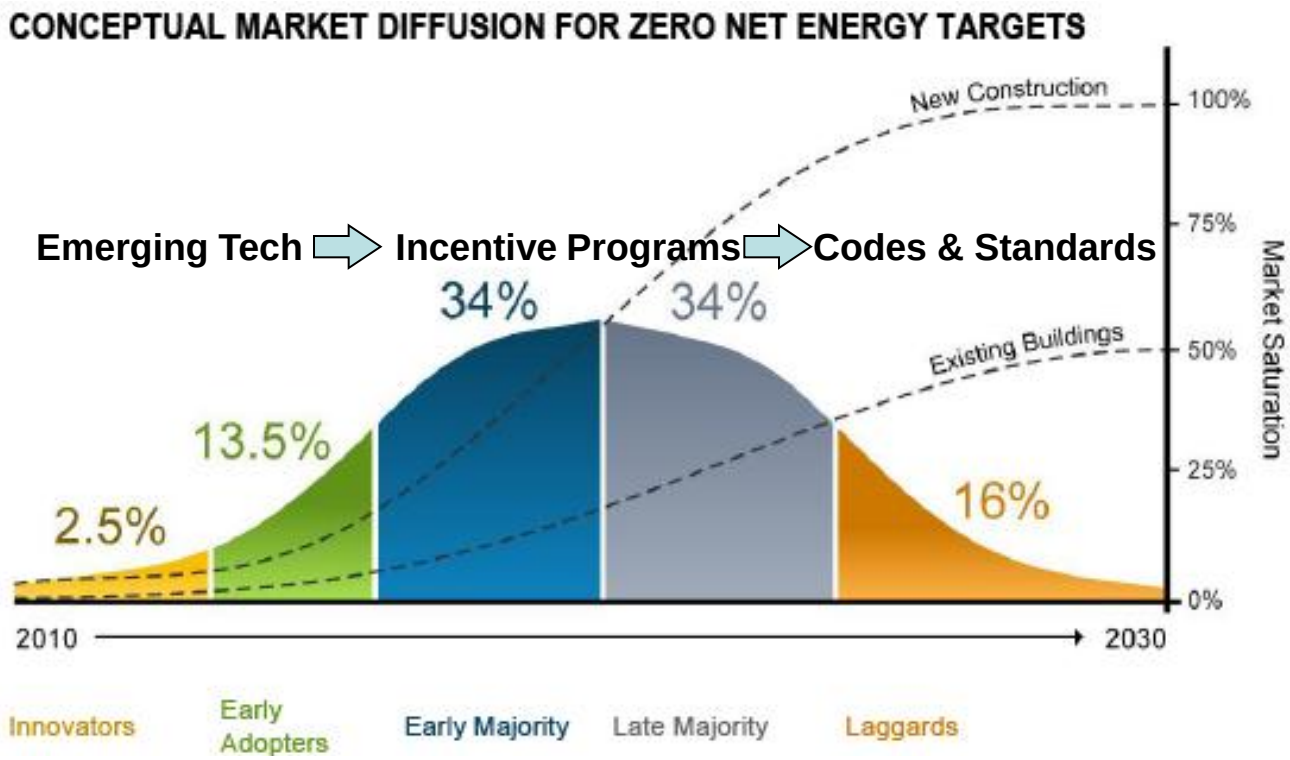
- **We still need to <u>drive demand</u>**
- Determine right balances from public/ ratepayer funding:
  - Rebates and incentives
  - Risk or price support for finance mechanisms
  - Technical assistance (audits, diagnostics, quality assurance)
  - Promotion, administration, "cost of sales"
- Incorporate other values contributed by:
  - Benchmarking, labeling, capturing value in appraisals
  - Investments timed to "trigger" points
  - Efficiencies and terms of first-lien or lease finance products

Regional Energy Networks

- Local Government Administered programs
  - Activities which utilities cannot do, scalability for broader geographic reach, hard to reach markets.
- Act as a laboratory for new ideas and carry on ARRA programs
- Program offerings
  - Energy Upgrade CA
  - Financing
  - Regional Energy Centers
  - Codes & Standards
- Total budget: $75 million



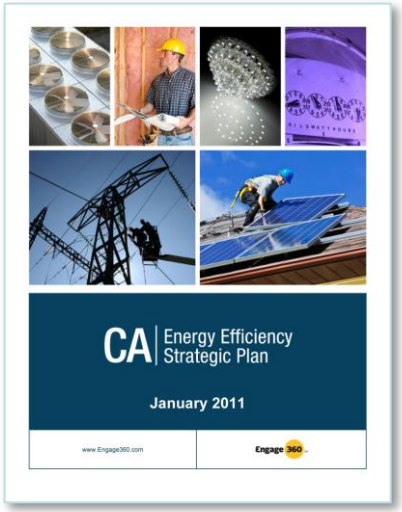
Market Transformation is the Goal

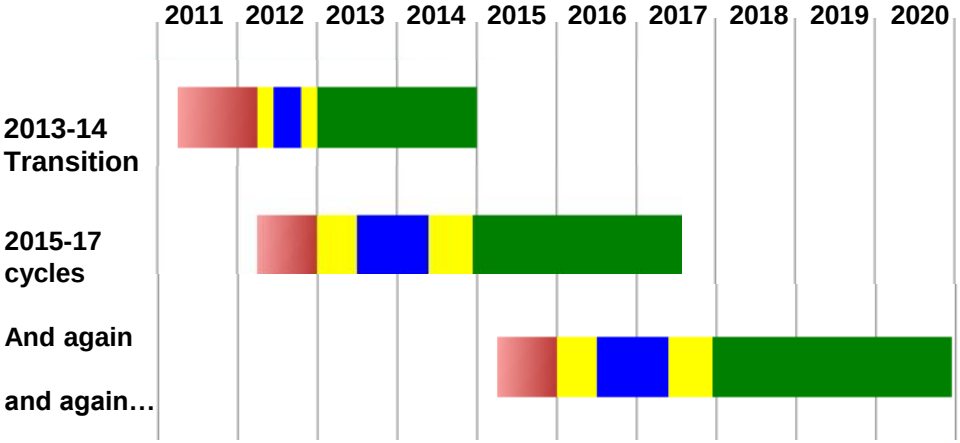


<u>CPUC Definition (D.09-09-047):</u>
Market transformation is long-lasting, sustainable changes in the structure or functioning of a market achieved by reducing barriers to the adoption of energy efficiency measures to the point ***where continuation of the same publicly-funded intervention is no longer appropriate in that specific market*.**

What next?

1. What would the pathway look like to scale-up energy efficiency by 2x, 5x, 10x? (e.g. business models, technology, equipment, installation solutions, workforce, consumers, …)
2. Which few new initiatives or strategies could have the largest impact on mobilizing the “opportunity gap”?
3. Which of these can the private sector solve on its own? Why is this not happening? What could make a difference?
4. Which of these can state &/or local governments mobilize? What specifically needs to be done? Is this sufficient, or are actions needed from others?





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