

# CPUC and Energy Efficiency: Utility Programs & Strategic Planning Process (2009-2020)

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2009-2020 Energy Efficiency Strategic Planning Process  
California Public Utilities Commission



CAT-CARB-CPUC-CEC Workshop on Non-market Based GHG Reduction Measures



# Today:

- Incorporating CPUC Programs into ARB Scoping Process
- Energy efficiency programs at CPUC
- Recent developments –
  - “Big Bold” Programmatic Initiatives & Targets
  - Statewide Energy Efficiency Strategic Planning Process (2009-2020)
  - 2009-2011 Utility EE Applications
  - New energy efficiency goals out to 2020

# Incorporating CPUC Energy Efficiency Efforts into AB 32 and ARB Scoping Process

- **CPUC EE programs for 2009-2011 and beyond should be included in ARB Scoping Plan**
  - Provide key measures for GHG savings needed under AB 32
- **CPUC EE programs also support CEC activities that are key to AB 32**
  - building standards development and enforcement
  - local government activities
  - the State's Green Building Executive Order
  - private sector energy efficiency activities that result in emission reduction efforts
- **Upcoming EE Strategic Plan, including Big, Bold EE Strategies, will provide basis for EE efforts in CA through 2020 and beyond**
  - CPUC staff will seek ARB staff comments on draft so final Plan is integrated with and supports AB 32 efforts;
  - In turn, ARB Scoping Plan should include final Strategic Plan (and Big, Bold EE Strategies) as key AB 32 reduction measures

# Current Energy Efficiency Programs

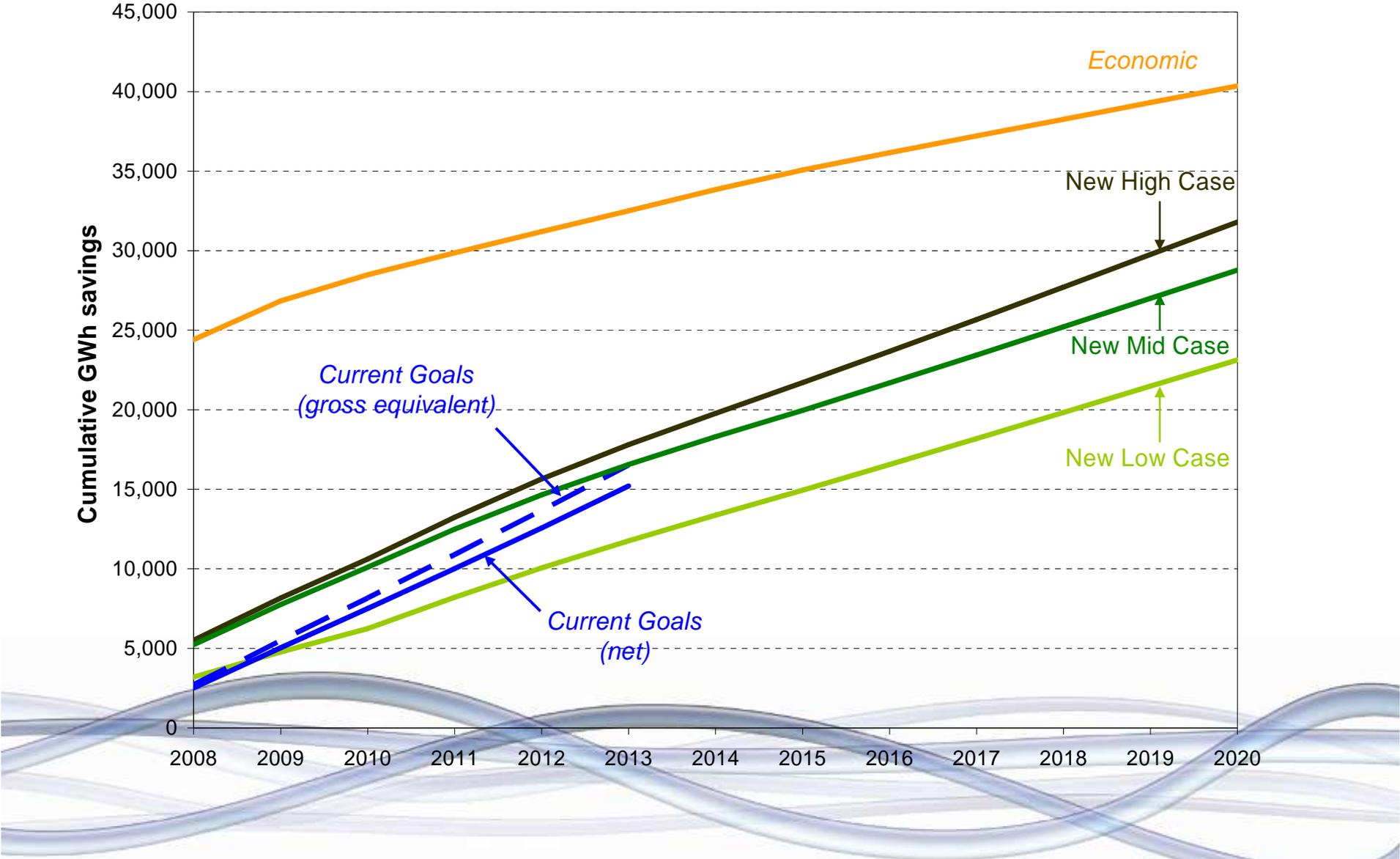
- 3 year cycles
- Utility administered programs
  - Design requirements, oversight and evaluation, measurement and verification (EM&V) by CPUC
- Approved Utility EE program funds
  - Ranged from \$500- \$845 million/year (2004- 2007), including LIEE programs
  - Approx \$1 billion/year expected (2009- 2011)
- Mandated efficiency goals through 2013
  - Cumulative goals (through 2013): 23,183 GWH/year; 4,885 MW/year; 444 MMTh/yr

# Types of Utility Energy Efficiency Programs ('06-'08)

- Statewide Programs
  - Residential
  - Commercial/Industrial/Agricultural
  - New Construction
  - Codes & Standards
  - Emerging Technologies
- Statewide Marketing and Outreach
- Third Party (EE Contractors) Programs
- Local Government Partnerships
- Government Agencies Partnership Programs
- *Types of programs: Rebate, audit, direct install, appliance turn in, education, performance contracting, energy management services*

[www.californiaenergyefficiency.com](http://www.californiaenergyefficiency.com)

# CPUC to adopt EE goals for Utilities through 2020



# Big Bold Energy Efficiency Strategies



## Commercial New Construction

- All new commercial construction in California will be zero net energy by 2030.



## Residential New Construction

- All new residential construction in California will be zero net energy by 2020.



## Residential / Small Commercial HVAC

- Heating, Ventilation, and Air Conditioning (HVAC) industry will be reshaped



## Low-Income Energy Efficiency

- All eligible homes energy-efficient by 2025

# Organization of Strategic Plan Process

Sectors			
<u>Residential</u>	<u>Commercial</u>	<u>Agriculture</u>	<u>Industrial</u>
<input type="checkbox"/> <b>Small HVAC BBEES</b>			
<input type="checkbox"/> <b>New Residential Construction BBEES</b>	<input type="checkbox"/> <b>New Commercial Construction BBEES</b>		
<b>Residential Low Income Strategies</b>			
<b>Local Government Roles</b>			
<b>Emerging Technologies, <span style="color: red;">Market transformation</span>, and/or Code &amp; Standards</b>			
<b>Integrated DSM &amp; EE program development &amp; delivery</b>			
<b>Integrated Marketing, Education &amp; Outreach</b>			
<b>Training &amp; Work Force Development</b>			

# EE Strategic Plan process

- 40 CPUC convened workshops Nov-Dec, 2007; CEC convened HVAC group
- 500 individuals, 1100 participant –days
- 48 comments, publicly posted
- Range of participants
  - Agencies (state, federal, cities, SCAQMD), NGOs, vendors, research groups, individuals, developers, finance institutions
- Workshop convener reports → utility draft

# Major New Action Areas from Strategic Planning Process-

## Broad Actor Focus; Not Limited to Utility Programs

- Zero Net Energy targets for new construction (residential – 2020; commercial – 2030)
- ZNE pilot projects (starting in '09-'11 period)
- Enhanced CEC – CPUC – IOU coordination
  - Codes & Standards towards ZNE (Title 24, 20)
  - Tiered, coordinated 'stretch' goals beyond standard code
  - Coordination of CEC research & performance modeling, with CPUC authorized IOU incentives programs
- Benchmarking, building labeling programs

# Residential and Commercial Themes

- Integrating DSM (EE, DR, DG/CSI) offerings & programs— (all sectors)
  - On-line information, coordinated incentive programs, audits
- Expanded whole building approaches
  - Incentives for integrated building design
  - Comprehensive retrofit programs
  - ‘One stop shops’ for integrated information
- Slowing “plug load” growth
  - Residential and commercial sectors
  - IOU emerging technologies, manufacture outreach, CEC Codes & standards, PIER research

# HVAC (res and commercial)

- Improved installation and maintenance
  - Quality installer certification program
  - Tracking system from unit sale to permitting
  - Quality branding program
- Research & Design of HVAC systems suited to West
- Focus on training installers, permitting agencies
- Expanded compliance programs

# Industrial

- Coordination of IOU programs with AB32 requirements
  - Aligning incentives
- Targeted, bilateral efficiency agreements
- Multi-resource program pilots
  - Food processing
- Participation in national energy management certification program
- Centralized technical support system

# Agriculture

- Market assessment and goal setting
- Enhanced education, training, marketing, outreach
- Acceleration of new technologies
- Integrated offerings
- Focus on process changes to reduce energy use
  - Pump testing

# Local Governments

- Emphasis on comprehensiveness
- Capacity building to 'lead by example'
- Integrated offerings (ee, solar, LIEE, water)
- Engagement in 'Stretch' T24 C&S, 'Green' Standards
- Expedited permitting, enhanced compliance programs
- Pilot 'point of sale' (POS) programs

# Marketing & Outreach

- Statewide brand, linked to AB32
- Web portal

# Financing & Education

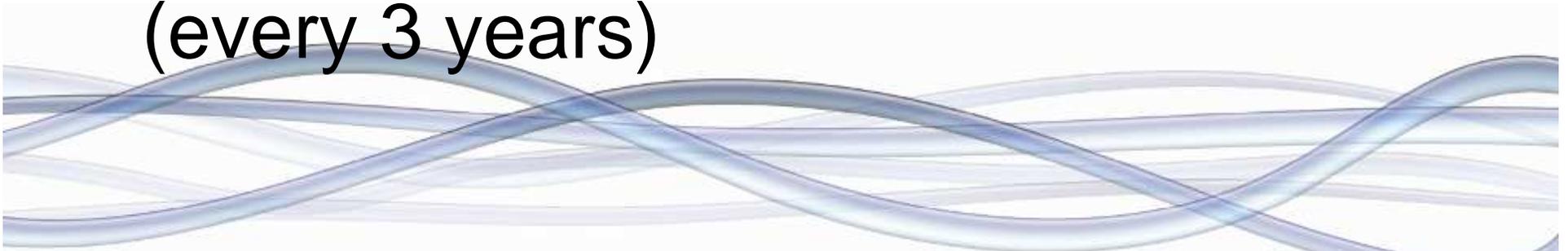
- On-bill financing, expanded loan programs
- Workforce needs assessment

# Emerging Technologies

- Strategic expansion, improved links to market intelligence, Big Bold strategies

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- May 15<sup>th</sup> Strategic Plan filed with CPUC
  - Extensive review & comment period
  - Concurrent filing and review of utility 09-11 Applications
    - (2012-2014 and 2015-2017)
  - CPUC authorization decision, late fall
- Continued Strategic Plan process (every 3 years)



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