

**Remarks by Jeanne Clinton, Clean Energy Advisor,**

**California Public Utilities Commission** (via phone link)

**Sept 29, 2008 CEC Workshop on Revisions to SB1 Requirements**

(for Solar Incentive programs of CEC, CPUC, public utilities)

- The CPUC prizes collaboration with the CEC on crafting California's energy policies and associated implementation actions.
- Today's discussion is important on two fronts:
  - Integrated DSM approaches (efficiency & renewables & demand response) offer smart, cost-effective approaches to managing energy resources and energy bills;
  - We have an opportunity to pursue well-coordinated strategies across government regulations, utility programs and their incentives, and creative solutions from players in the energy services market.
- The CPUC is proud to have adopted ZNE goals for new construction whose achievement will require sensible combinations of efficiency and renewable energy.
- Today I will focus on how we might secure a good fit between energy efficiency programs for new buildings and the State's solar incentive programs.
- Specifically, one question the CEC and CPUC staffs are discussing is to what extent the IOU 2009-2011 EE programs will
  - target EE savings levels, and
  - choose incentive schemes,that are compatible with levels the CEC would like to set as conditions for homes and businesses participating in solar incentive programs – programs variously overseen by CEC, CPUC, and POUs.

<b>DOCKET</b>	
<b>07-SB-1</b>	
DATE	<u>SEP 29 2008</u>
RECD.	<u>SEP 29 2008</u>

## **I. Background:**

CPUC oversees 3-year efficiency program and funding cycles of the IOUs.

CPUC oversight consists of setting policy and guidance on such issues as:

- Quantitative goals for EE to be achieved (kWh, kW, therms)
- Cost-effectiveness requirement for each utility's overall portfolio
- Policy objectives to be met, including reflection of *the California Long-Term Energy Efficiency Strategic Plan*, adopted by the CPUC September 18, 2008
- CPUC does NOT approve individual program design features (e.g. measures targeted, incentive levels, marketing strategies, or implementation specifics)
- Evaluation standards used to assess portfolio savings performance
- Utilities can earn a shareholder incentive for verified savings performance in excess of 85% of goals, with utilities subject to shareholder penalty if fall below 65% of goals

## **II. Basics on 2009-2011 Filings**

- IOUs submitted their proposed 2009-2011 Portfolios in late July.
- Over 250 programs across 4 IOUs (a stack of paper 4-5 feet tall)
- Totals nearly \$4 billion, plus additional \$750 million proposed for low income EE
- CPUC staff have reviewed applications and are now in meetings Sept – October to give feedback on how well the portfolios reflect CPUC’s policy and filing guidance
- Likely that utilities will have to file supplemental filings with additional info. Most likely by early 2009.
- This means 2006-08 programs are expected to have bridge funding into 2009 until next portfolios are ready (CPUC bridge funding decision scheduled for October 16)
- Approval of 2009-2011 portfolios most likely by June 2009, with new programs and their design features to start in a reasonably fast start-up thereafter (e.g. 2-3 months, varying by program)

### **III. Specific Issues for Coordination with CEC September 2008 SB1 Draft guidelines**

New Construction – CEC proposes Tier 1 and Tier 2 EE levels above Title 24 to be 15% and 30%, better respectively

There are three dimensions here – Level of efficiency, Shape of incentive structure, and Incentive amounts. For each, I will review what utilities have proposed & what CPUC staff is thinking about those designs.

#### **A. Minimum level of EE to qualify for New Home Incentives:**

- Strategic plan called for 50% of new homes in 2011 to be 35% better than 2005 Title 24
- Assuming the 2008 standards now adopted are 15% above the 2005 levels, this means the 2011 target for new homes will be on average an additional 20% efficient above 2008 levels (e.g. can be a blend between 15% and 30% or higher).
- Thus **by 2011 we think the minimum threshold for EE may need to be 15 or 20%.**
- The target efficiency levels in each time period must be achievable
- The efficiency levels and accompanying incentives should be identical between EE homes and NSHP (SB1) solar homes, regardless of whether a building also installs solar energy systems, to make a clear and consistent push for beyond-code efficiency levels
- To get to ZNE by 2020, need about 15% improvement in standards or voluntary designs each cycle for 2008, 2011, 2014, 2017, 2020 (would be 75% EE improvement, with balance provided by renewable on-site or near-by energy source)

<p><b>CPUC View: Utility programs should strive to incentivize leading edge EE designs comparable to one and two cycles ahead (e.g. 15% and 30% better than then-code)</b></p>
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**B. Form of Incentive (steps or continuum)**

PG&E Residential New Construction: 3 Steps

Tier 1 Exceeds Title 24 (2008) by 15-24.99% (all designs in range get same incentive/unit savings)

Tier 2 “ “ “ 25-34.99%

Tier 3 “ “ “ 35% +

SCE, SCG, SDG&E Residential New Construction: Continuum incentives:

Min 10% above Title 24,

*Then linear continuum incentive rising to:*

At or above 35% better than Title 24.

SCE Commercial New Construction: Continuum incentives:

Min 10% above Title 24,

*Then straight line continuum incentive rising to:*

At or above 30% better than Title 24.

SDG&E and SCG Commercial New Construction: (placeholder value; exact design TBD)

Lighting: lower incentive per first year kWh

Other electric: much higher incentive per first year kWh

Gas: Fixed unit savings incentive regardless of how much better than Title 24.

**CPUC staff view: an inclined continuum would reward even incremental improvements in EE design. Could have a “kicker” or change in slope of the incentive at 30% or higher efficiency gains.**

### **C. Size of Incentive for Range of EE Levels**

#### PG&E New Residential Construction Proposal:

Tier 1 pays \$0.30/kWh or \$1.15/therm (first year);	avg 36% of incremental cost
Tier 2 pays \$0.75/kWh or \$3.00/therm	49%
Tier 3 pays \$1.50/kWh or \$6.00/therm	66%
(Program benefit/cost ratio TRC + 0.60)	

#### SCE, SCG, SDG&E Residential New Construction: Continuum incentives:

Min 10% above Title 24 = \$0.29/kwh or \$1.16/therm (first year savings)

*Linear continuum incentive rising to:*

At or above 35% better than Title 24 = \$1.00/kwh or \$4.00/therm

#### SCE Commercial New Construction: Continuum incentives:

Min 10% above Title 24 = \$0.10/kwh (first year savings)

*Straight line continuum incentive rising to:*

At or above 30% better than Title 24 = \$0.30/kwh

#### SDG&E and SCG Commercial New Construction: (placeholder value; exact design TBD)

Lighting: \$0.06/first year kWh savings

Other electric: \$0.32/kWh

Gas: \$1.00/therm

CPUC staff observations:

- Utility overall portfolio must be cost-effective, but individual programs need not all be cost-effective
- Any change in program costs (incentives, administration, marketing) may require offsetting cost or program size adjustments elsewhere in the portfolio
- CEC's consultant (Consol) suggests that at a 30% EE above 2008 standards, PG&E's currently proposed incentives are equivalent to 13% (Climate Zone 4) to 33% (Climate Zone 10) of the estimated incremental construction costs to reach this level, varying across climate zones.
- PG&E program staff advises the incentives for 30% efficiency are about 49% of incremental cost, and for 35% efficiency rise to 66% of such costs.

- **CPUC staff will be meeting tomorrow with the 4 IOUs to talk about their family of programs related to new construction (C&S, E&T, RNC, CNC). We will explore in more detail the incentive levels proposed and how their implied coverage of incremental builder costs is likely to gain acceptance and market adoption. We have invited CEC staff to join this discussion to discuss assumptions and explore the potential for a consensus approach.**
- The most important information we all need to better understand is:
  - a. What is the likely incremental cost in these future years for builders to achieve target levels of EE?
  - b. What design, installation, or technology improvements might reduce these costs? And
  - c. How much of an incentive is needed to attract builders to reach target levels?