Calif. Senate Select Committee on Energy Efficiency

Sen. Kevin De Léon, Chairman

Accelerating and Expanding Commercial Energy Efficiency Retrofit Activity in California

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Century City, Los Angeles

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The CPUC Looks Ahead

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CPUC Perspective on Commercial EE Retrofit in the Years Ahead

1. Implications of electric PGC sun-setting and gas PPP funds transfer
2. New developments in financing
3. Potential changes to EE programs supported by ratepayer funds
4. Coordinating these with EE market developments

Implications of PGC Sun-setting and Gas PPP funds transfer

- October 2011 Commission decision (D.11-10-014) to use prior years' authorized but under-spent EE funds for 2011 and 2012 programs to off-set most but not all of expected loss of $155 million from ***gas*** EE funding (15% of one-year funds).
  - October 2011 - State Superior Court Decision rules that State EE PPP fund transfer violates statute and the funds transfer is not permissible; final outcome pending.
- December 15, 2011 scheduled CPUC vote on proposed decision to backfill sun-setting ***electric*** PGC funds (25% of one-year funds) with energy procurement funding (otherwise used to build or buy conventional power), starting January 2012
- CPUC must balance legislative direction and action/inaction: By law CPUC must ensure utilities first invest in all cost-effective EE. Specific funding under legislative direction currently unavailable or uncertain.
  - 2012 – Legislature may again consider statutory direction on PGC, PPP, and state's energy efficiency policy.

New Developments in Financing

Finance ruling expected in December seeking comments on possible new CPUC directives. Migrate toward:

- greater use of private capital for expanded loan activity and EE investments,
- on-bill repayment option to facilitate cash flow, and
- consider ratepayer loan loss reserves to reduce interest rate to borrowers.

1. On Bill Repayment (OBR)

- Develop in 2012; ready for roll out in 2013.

2. Offer ratepayer-supported loan products via OBR (10% or more of EE program portfolio?)

- Build on CAEATFA loan loss reserve program to operate 2012
- Develop/accept loan products 2012 and 2013; roll out 2013+.

3. Continue OB*Financing* until OB*Repayment* is available

4. Collect and share aggregate loan and project data with lenders to build knowledge base and inform performance risk concerns

On Bill Repayment Proposal Elements

(Developed by Environmental Defense Fund in collaboration with CPUC staff)

- **Banks or other capital providers provide capital and originate loans**
  - Customer repays loan line item via utility bill.
  - Threat of utility disconnection for nonpayment provides valuable security to lenders.
- **Can apply to every customer type**, including residential.
- No recourse to ratepayer funding, unless **loan loss reserve** established, with criteria.
- **Loan obligation to stay with meter** if building is sold or when tenant moves.
- **Expect lower interest rates +/or longer terms** due to higher credit quality via utility bill payment**.**
  - Opportunity for deeper retrofits

Potential Changes to 2013-14 Ratepayer-Supported EE Programs: *1) Programs*

Key staff recommendations:

- Focus more on **small commercial buildings**
- Leverage audits to push **comprehensive retrofits** and reduce single-measure replacements
- Expand successful **third party-administered programs**
- Increase adoption of **emerging technologies**
- Increase installation of **sub-meters**, efficient plug-load technologies, and energy management systems
- Increase **performance data** for whole building retrofits, through modeling tools and case studies

Potential Changes to Ratepayer-Supported EE Programs: *2) Target Technologies*

Most promising (new) technologies from recent EE Potential study:

- Lighting
  - Quality **light emitting diode (LED) lamps** where CFLs now are not the most effective technology, e.g. down-light applications and streetlights.
  - **Dimmable** fluorescent lamps and ballasts (both linear and compact) that save energy via variable lumen levels based on functions needed.
- HVAC
  - "**Smart A/C systems**" (embedding fault detection, using variant refrigerant flows to enhance performance)
  - EE designs for **data centers**

Coordinating Ratepayer Programs with EE Market Developments

- **New business models** emerging:
  - Turn-key energy management,
  - Continuous EM commissioning with real-time feedback, also referred to as continuous energy improvement
  - Commitments to “Zero Net Energy” buildings with integrated demand side solutions
- **National commitments** via Better Buildings Challenge from dozens of players with large footprints --1.6 bil sq feet by 2020
  - industrial facilities commit to 25% EE
  - commercial and institutional buildings commit to 20% EE
- ***Small commercial buildings*** *are <u>not</u> adopting EE as fast as larger, sophisticated owners/occupants*

Timeframes for Changes Ahead

- ***October 2011 - Feb 2012***: CPUC guidance for transition cycle in 2013-14
- ***Spring 2012***: Utilities propose 2013-14 EE portfolios (programs, technologies, financing, partnerships)
  - ***January 2013-December 2014***: Transition cycle in field with EE program changes and updates
- ***2012:*** Once needs & market analyses now underway are completed, the CEC will collaborate with CPUC and stakeholders next summer on AB 758 (2009) Action Plans (EE in existing buildings), and what those will mean for future ratepayer support.
  - ***January 2015+:*** Continued changes in program approaches, mechanisms, target technologies carried out in field

Reference Information

IOU On-Bill Financing FUNDED through September 2011

Number of Loans

	PG&E	SCE	SCG	SDG&E	
Agriculture				4	
Commercial		59		**739**	
Industrial		9		35	
Institutional		10		112	
Multifamily					
TOTAL	**4**	**78**	**28**	**890**	**1000**

Loan Amounts

	PG&E	SCE	SCG	SDG&E	
Agriculture				$ 141,841	
Commercial	$ 109,600	$ 997,525		**$ 16,147,739**	
Industrial		$ 256,411		$ 780,799	
Institutional	$ 250,000	$ 758,780		$ 4,327,499	
TOTAL FUNDED	**$ 359,600**	**$ 2,012,716**	**$ 988,608**	**$ 21,397,879**	**$ 24,758,804**

Financing Issues on which CPUC will be Seeking Feedback

1. How should ratepayer-supported loans be balanced with rebates in the EE portfolio?
2. Should OBR include threat of utility shut-off and attach debt to meters? For all customers?
3. Most lending programs finance both solar and EE upgrades. Should financing allow DG, DR and EE?
4. What role should utilities, local governments, third parties, etc. play?
5. How should EE finance be incorporated into Risk-Reward (utility shareholder) Incentive Mechanism, cost-effectiveness calculations?