



## Uncommitted Energy Efficiency in a Managed Demand Forecast for Long-Term Procurement Planning

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## LTPP Places Efficiency First in Loading Order as Long as Reliable

- CPUC’s biennial LTPP proceeding
  - Pursuant to P.U.C. 454.5, CPUC reviews / approves IOUs’ 10-year procurement plans
  - Pursuant to P.U.C. 380, CPUC determines need for new resources to meet long-term resource adequacy requirements
- IOU’s plan “will first meet its unmet resource needs through all available energy efficiency ... that [is] cost effective and reliable.” (P.U.C. § 454.5(b)(9)(C))
  - EAP loading order





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## IOU Procurement Authority Is Based on a Managed Demand Forecast

- CPUC has deferred to the IEPR to produce base demand forecast
- Savings from CPUC's EE goals appear in one of two places:
  - “Committed effects” are embedded in the IEPR forecast
  - “Uncommitted effects” are incremental savings relative to the IEPR forecast
- CPUC authorizes procurement based on a **“managed demand forecast,”** including reasonably expected to occur\* savings from:
  - Uncommitted EE savings
  - Other demand-side measures (DR, CHP, renewable DG)

\* CPUC staff borrow from the RETO concept which previously guided the CEC's electricity planning efforts until repealed from law under SB 1389 (Bowen, 2002). RETO is a useful and familiar concept for resource planning, because it represents a decision-maker's judgment about what is reasonable to assume from a system reliability perspective.






## 2006 LTPP Decision Called for Better Quantification of Uncommitted EE

- D.07-12-052 acknowledged uncertainty in quantifying uncommitted EE savings, relative to IEPR forecast
  - Assumed 20% of CPUC EE goals was incremental to 2007 IEPR.\*
  - Called for better quantification of savings from CPUC EE goals in IEPR proceeding.
- CPUC has actively participated and devoted resources to the Demand Forecast and Energy Efficiency Quantification Project (DFEEQP)\*\* in the 2008 IEPR Update and 2009 IEPR.

\* SDG&E was an exception. The CPUC assumed 100% of SDG&E's EE Goals to be embedded in the 2007 IEPR forecast because their goals were considered aggressive pursuant to D.07-10-032.


\*\* The scope of the DFEEQP was to quantify both committed EE savings in the 2009 IEPR and uncommitted EE savings






### 2008 EE Goals Decision Ordered Use of Updated Goals in LTPP

- D.08-07-047 assessed EE goals scenario (high, mid, low) and adopted mid-range goals for 2012-2020.
  - Shifted to Total Market Gross (TMG) paradigm
- The Decision ordered the IOUs to use 100% of numerical TMG goals in the LTPP proceeding
  - Consistent with previous EE goals decision (D.04-09-040), which also ordered use of numerical (GWh, MW) goals in LTPP




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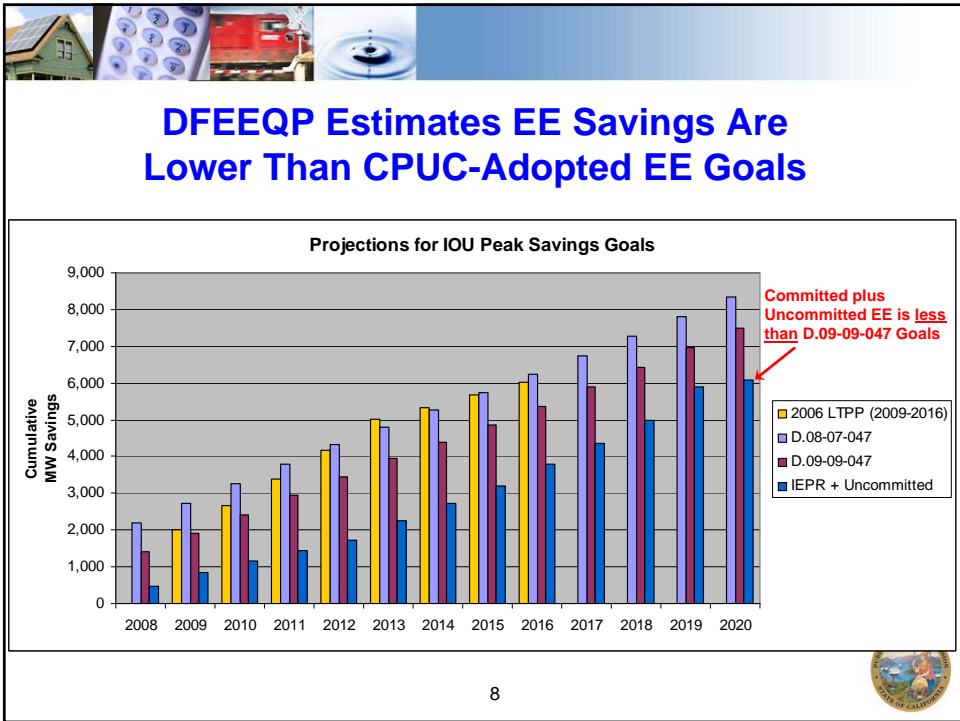
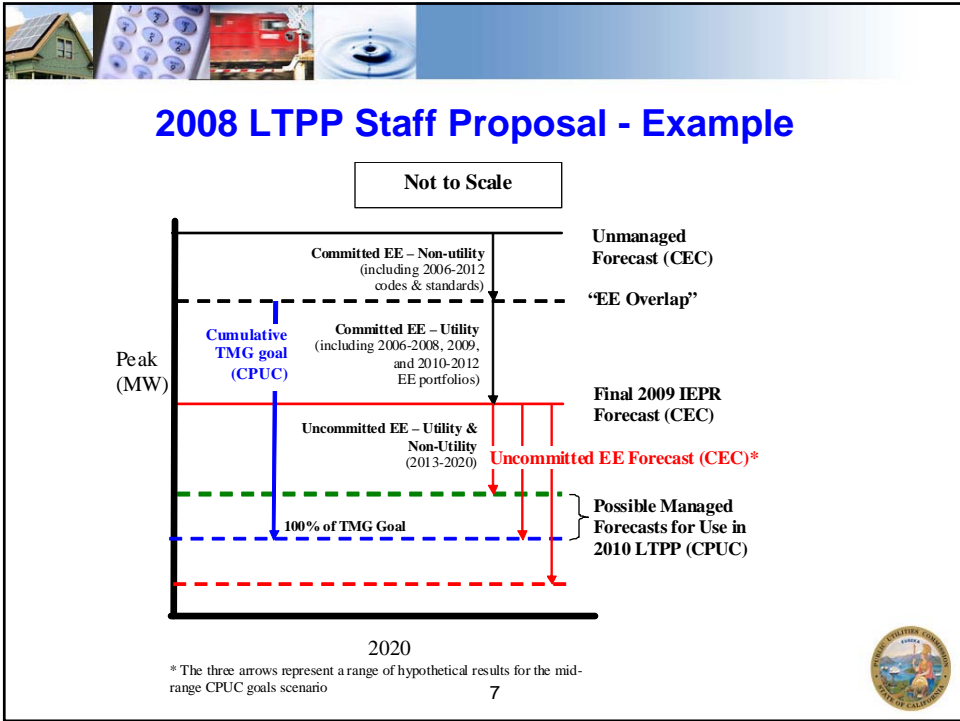



### 2008 LTPP Staff Proposal Anticipated Discrepancies between Numerical CPUC EE Goals and Quantification of EE in the 2009 IEPR

- 2009 IEPR used different and/or more updated assumptions as compared to 2008 EE Goals Study
  - e.g.: economic and demographic data
- If a discrepancy appears, recommended using the lower of the two estimates of total EE (embedded + uncommitted EE)
  - Reliability criterion supports conservative choice




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## 2008 LTPP Staff Proposal Recommended An Analysis of EE Uncertainty

- Portfolio analysis should be informed by high and low bounds on need for new resources
  - High/Mid/Low need estimates should track to results from the DFEEQP.
- LTPPs should provide estimates of likelihood of occurrence for each uncommitted EE scenario




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## DFEEQP Clarified Key Uncertainties that Exist between CEC and CPUC models

- DFEEQP answered many of the questions it set out to address
  - Better identification of savings from IOU programs in the 2009 IEPR forecast
  - Better calibration of models to calculate incremental effects
    - Reduced methodological uncertainty between models




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### **DFEEQP Highlighted Additional Uncertainties and Raised New Questions**

- Itron's analysis identified additional uncertainties, which will need to be addressed in CPUC processes.
- New Questions:
  - Should the LTPP proceeding use more updated savings estimates, notwithstanding adopted numerical EE goals?
  - How should the LTPP address EE uncertainty?




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### **CPUC Staff Recommendations for Forthcoming 2010 LTPPs**

- 2010 LTPP OIR scope should include potential reevaluation of the “100% of TMG goals” requirement.
- Coordination of where to best resolve issues between LTPP and EE proceedings.
- Continue to build from analytical work of DFEEQP and 2009 IEPR record.



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**Questions?**

