



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

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LTTP Places Efficiency First in Loading Order as Long as Reliable

- CPUC’s biennial LTTP 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





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* CPUC staff borrow from the RETO concept which previously guided the CEC's electricity planning efforts until repealed from law under SB 1389 (Bowen, 2002).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





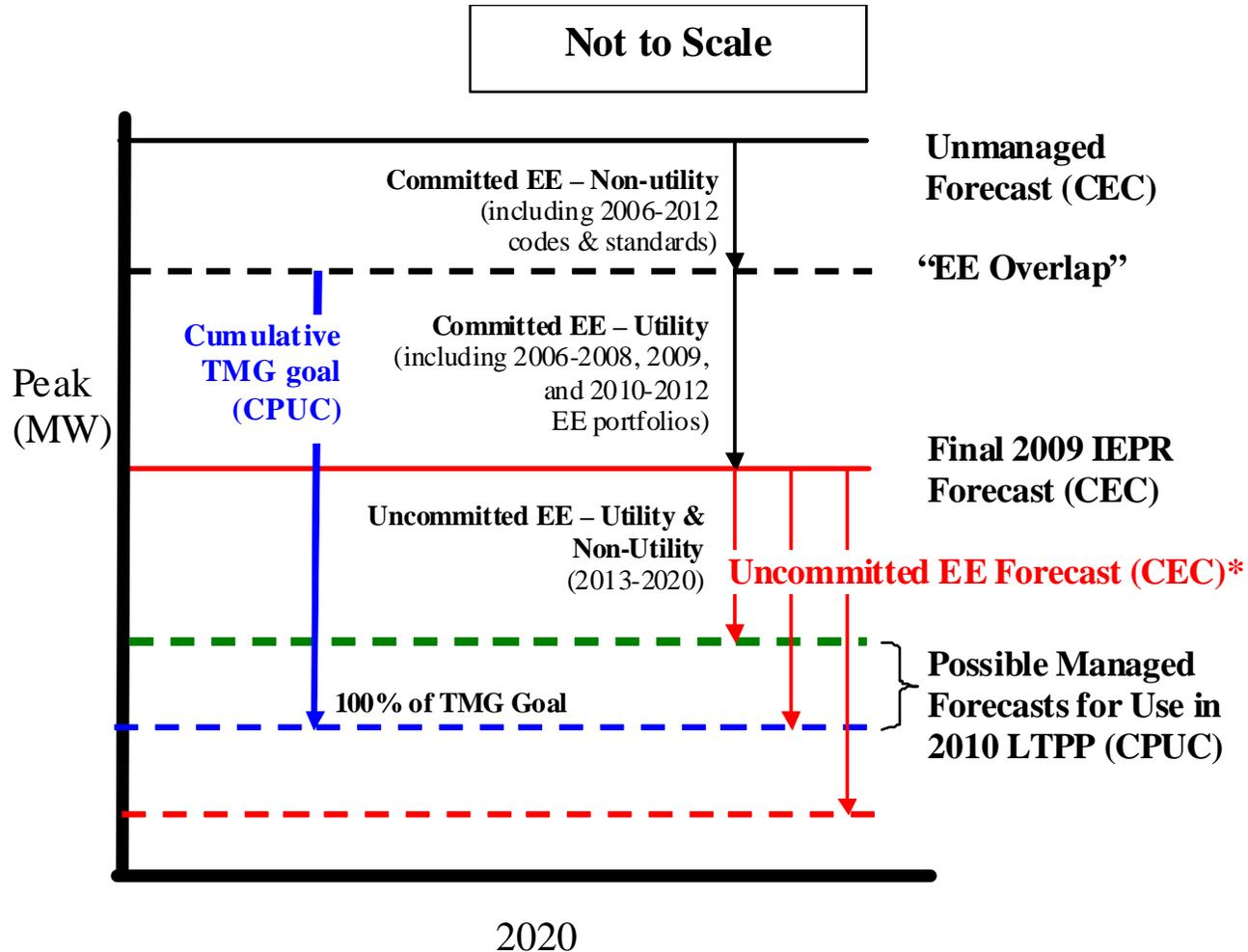
2008 LTPP Staff Proposal Anticipated Discrepancies between Numerical CPUC EE Goals and Quantification of EE in the 2009 IEPR

- 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





2008 LTPP Staff Proposal - Example

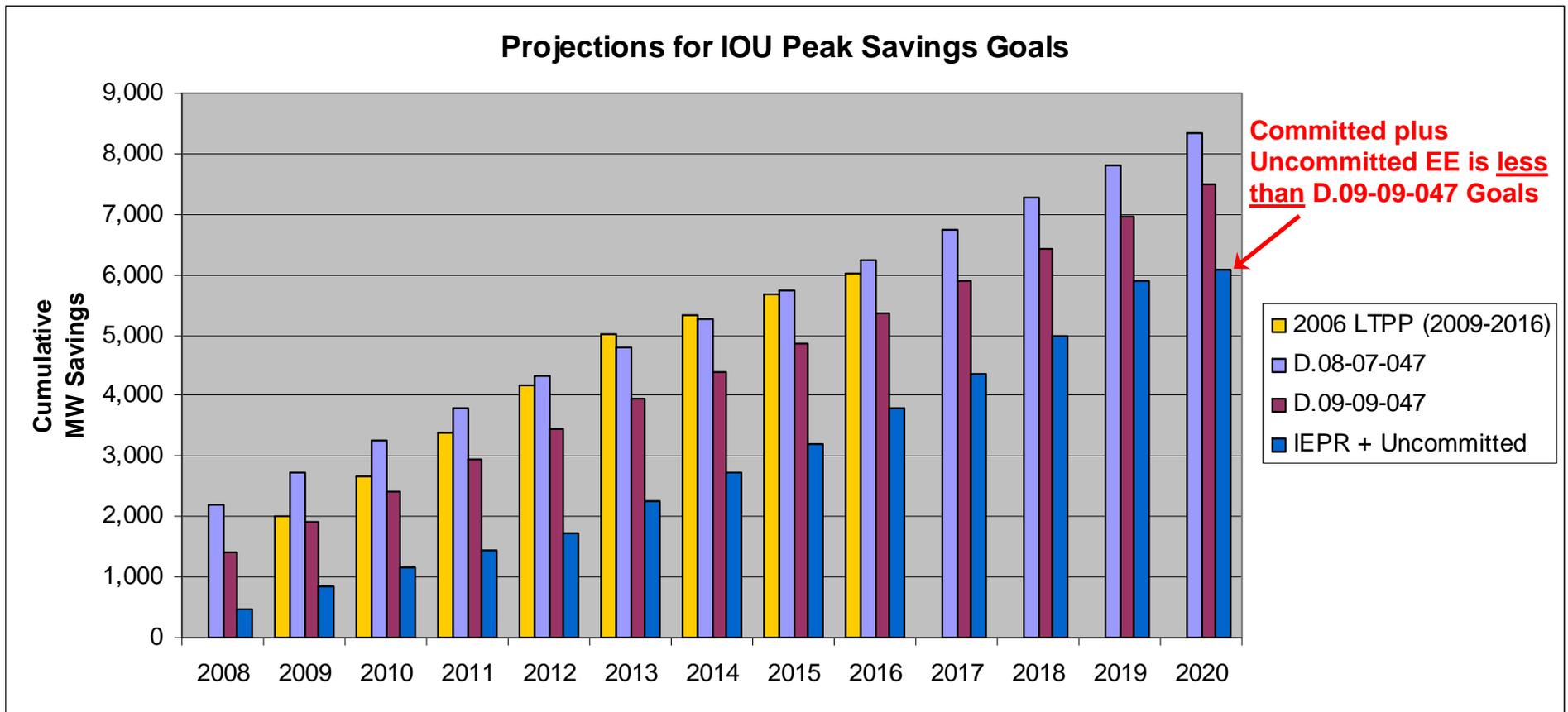


* The three arrows represent a range of hypothetical results for the mid-range CPUC goals scenario





DFEEQP Estimates EE Savings Are Lower Than CPUC-Adopted EE Goals





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





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





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?





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.





Questions?

