DOCKET
09-IEP-1C
DATE FEB 17 2010
RECD. FEB 18 2010

California Energy Commission

Incremental, Uncommitted Energy Efficiency Quantification Sub-Project: Background

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February 17, 2010
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Motivation

- Decision makers have endorsed high levels of energy efficiency as long-term goals although there are no funding commitments or specific program designs to enable analysts to develop reliable estimates of impacts.
- Such commitments appear as far back as the 2003 Energy Action Plan and as recently as ARB's AB32 Scoping Plan in 2008.

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Steps Along the Way

- 2003 Energy Action Plan, esp. loading order
- 2004 CPUC D.04-09-060 – IOU program goals
- 2006 CPUC LTPP
- 2007 CEC IEPR policy goals for EE
- 2008 CPUC LTPP request to CEC
- 2008 CPUC Goals Update – D.08-07-047
- 2008 ARB Scoping Plan
- 2008 CEC IEPR Update
- 2009 CEC IEPR
  - adopted demand forecast
  - Status reports on incremental uncommitted effort

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2006 CPUC LTPP

- The CPUC attempted to adjust the 2007 IEPR demand forecast by subtracting estimates of additional energy efficiency savings:
  - These estimates were prepared by IOUs following the guidance of energy efficiency goals set by the CPUC in 2005
  - IOUs protested that most of the additional savings were already embedded in the CEC's IEPR demand forecast
  - There was insufficient time remaining in the CPUC rulemaking to get into the details of the controversy

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2006 CPUC LTPP, Cont'd

- In D.07-12-052, the CPUC decided that 80% of the energy efficiency savings estimates for PG&E and SCE, and 100% for SDG&E, were duplicative of savings in the base demand forecast.
- The CPUC and parties agreed more analysis was needed to improve the accuracy of these estimates

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2008 Goals Process

- CPUC initiated an update to its energy goal setting process in 2007:
  - Itron was hired by the IOUs to update the IOU program potential study
  - Itron was hired by CPUC/ED to adapt the CPUC's energy efficiency strategic planning results and to prepare quantitative estimates of various strategies
  - Itron developed a new, flexible model called SESAT to assess non-utility efforts and process many scenarios
  - Itron's 2008 Goals Update Report quantified the savings resulting from three scenarios which presumed alternative levels of effort and program stringency

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2008 CPUC Goals, Cont'd

- In D.08-07-047CPUC adopted the concept of "total market gross" as the basis for goals it had established, and chose quantitative values from the Mid-Case that Itron had evaluated
- Scenarios encompassed the following:
  - IOU programs (plus naturally occurring savings)
  - Codes and standards
  - AB 1109 (Huffman)
  - Big Bold initiatives

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CPUC Request to CEC

- In the 2008 IEPR Update, the CPUC requested and the CEC agreed to undertake an analysis of additional energy efficiency savings that were incremental to the base demand forecast:
  - In R.08-02-007, the CPUC directed IOUs to address the issues of additional energy efficiency and overlap with CEC demand forecast in the CEC's IEPR proceeding
  - In the 2008 IEPR proceeding, the CEC held two workshops to scope the effort and to establish a Demand Forecast Energy Efficiency Quantification Project Working Group (DFEEQP).

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CPUC Request to CEC, Cont'd

- The 2008 IEPR Update (Chapter 2) also determined that the Energy Commission should continue the practice long-established of distinguishing between "committed" and "uncommitted" policy initiatives, and that only "committed" savings should be in the adopted demand forecast.
- "Committed" savings are those which result from market forces and from policy initiatives that are fully authorized and for which a sufficient program design exists to allow accurate savings assessments
- "Uncommitted" savings are the result of policy initiatives not considered committed

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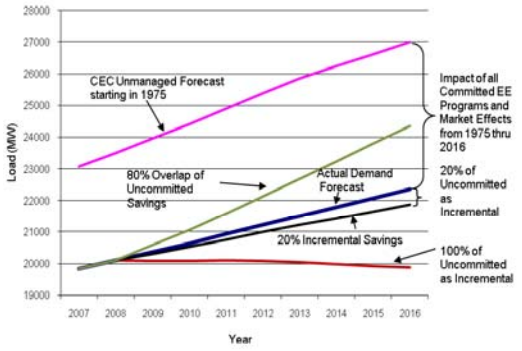
Graphical Depiction of Overlap

- Staff Report
- (Figure 1)



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CEC Staff Project

- Staff launched a three-part project, with the assistance of Itron, funded by the CPUC through an existing contract they had in place with Itron:
  - For the 2009 IEPR, upgrade energy efficiency assessments of committed programs
  - Develop incremental savings estimates for the same set of policy initiatives established by the CPUC through its 2008 Goals Update Report process as memorialized in D.08-07-047 (adjusted for shifts from uncommitted to committed status)
  - Develop a capability for in house assessment of incremental savings of policy initiatives

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CEC Forecasting Efforts

- Staff determined that its analyses of utility programs was most in need of updates, so focused there
- Acquiring adequate data to evaluate long-term impacts of IOU programs was difficult, because:
  - IOU evaluation, measurement and verification (EM&V) efforts were different in each three-year program cycle
  - Access to EM&V results was largely confined to verified first-year savings and generic net-to-gross adjustments, rather than measure, end-use or program-specific adjustments
  - No database existed to bring together in an organized manner the results of various ex post load impact studies

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CEC Forecasting Efforts, Cont'd

- Upgrades in utility program savings were achieved:
  - Major upgrades were achieved for IOUs in the draft staff demand forecast of May 2009 (discussed at May and June workshops)
  - Minor upgrades were achieved for SMUD and LADWP for the revised demand forecast (August 2009)
- The final demand forecast adopted by the Energy Commission in 2009 IEPR adjusted savings to shift the committed period for IOU programs from 2009-2011 to 2009-2012, slightly reducing the long-term forecast from the first revision

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CEC Staff-Itron Effort

- Key elements of the effort:
  - Provide Itron with end-use results and assumptions for adopted 2009 IEPR demand forecast
  - Remove the elements associated with 2009-2012 EE programs adopted by the CPUC in D.09-09-047, and any other "policy initiatives" included in the CPUC scenario definitions that are now in the CEC demand forecast
  - Modify SESAT as used in 2008 Goals Update Report to project scenarios by applying end-use specific reductions to CEC end-use results
  - Develop a mechanism to determine what is incremental where ambiguity about modeling cannot be resolved

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Staff Report

- Main Energy Commission report, written by Mike Jaske and Chris Kavalec. Policy-oriented, with summary of methods and results.
- Appendix with glossary of terms.
- Attachment A, written by Itron. Detailed description of methods and results.
- Attachment B, written by CPUC/Energy Division. History of CPUC goals for energy efficiency.
- Attachment C, written by CPUC/Energy Division. Long-term procurement planning issues.

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Remaining Steps

- Clarify technical documentation of the study results as a result of this workshop and comments (due Feb. 5)
- Conduct IEPR workshop on Feb. 17 for policy issues related to the use of these results
- Modify policy aspects of staff report as a result of the IEPR Committee workshop
- Transmit final documentation to CPUC as an energy Commission input into the forthcoming 2010 LTPP proceeding(s)
- Consider improvements for 2011 IEPR cycle

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