Conceptual Project Plan
Demand Forecasting and Energy Efficiency Impact Assessment
Electricity Supply Analysis Division Staff – 7/25/2008

I. Summary

The 2007 IEPR committed the CEC to examining in 2008 issues raised with respect to the amount of energy efficiency included within the adopted demand forecast. The CPUC has agreed that the IEPR is the proper forum in which to address these topics, and in R.08-02-007, it has directed the IOUs to participate in this process. The 2008/09 IEPR Committee conducted a workshop on this topic and the closely related issues of the incremental effect of near-term EE programs and long-term EE potential beyond the adopted demand forecast on March 11, 2008. At its March 17 meeting, the 2008/09 IEPR Committee determined that staff resources should be devoted to three topics over the course of the 2008 IEPR Update and 2009 IEPR time period:

1. improving estimated impacts of energy efficiency within the demand forecast and attribution to motivating forces, such as price response, market effects, program participation, requirements of standards, etc.;
2. creating a new capability to project near-term program impacts incremental to the CEC demand forecast; and
3. creating new capability to project long-term impacts from portions of potential that are identified as achievable under various program designs.

Table 1 summarizes key information about these three improved modeling capabilities, and an important pre-cursor step to provide enhanced inputs about past and proposed EE programs to allow them to be modeled more accurately.

These efforts involve both modifications to the existing demand forecast, certainty assumptions, and perhaps revamping portions of its modeling framework, and creation of new capabilities in parallel to the demand forecast models. The focus on these three highly related efforts will displace some planned activities that staff might have otherwise been able to accomplish, but now cannot complete due to the shift of resources to these EE assessment activities.

Further, these efforts cannot be undertaken by staff alone. To be successful they require the active participation of the CPUC and its EE contractor – Itron – as well as some degree of cooperation from utilities, especially IOUs. Fortunately, both the CPUC Energy Division and the IOUs have made "commitments" to assist in examining this topic, and will do so in the 2008/09 IEPR proceeding.[1] [2]

[1] CPUC commitments include the text of R.08-02-007, the statements of Energy Division Staff at the March 11 workshop, the CPUC's post-workshop comments filed on April 25, a letter from Sean Gallagher committing to fund Itron to undertake improvements in EE quantification, and the execution of that commitment during July 2008.

[2] PG&E and SCE explicitly mentioned their intentions to cooperate on this topic in their comments at the April 28, 2008 Scoping Hearing for the 2008/09 IEPR proceeding.

This conceptual project plan is a guide to proposed efforts, of staff and others, to achieve the broad goals established by the Committee and the numerous activities, both technical and in coordination, which will be needed.

Table 1: Overview of Deliverables for Improved EE Modeling Capabilities

Capability	Proceeding	Start	Finish	Effort	Deliverable(s)
A.Project Plan, Improved EE Program Description and Measure Saturations	2008 IEPR Update	3/11/08	June 2008	Project plan and template for characterizing programs to be issued by CPUC	• Project Plan • Itron contract amendment • Draft IEPR Chapter
	2008 IEPR Update	July 2008	Aug 2008	Improve taxonomy of EE terms	Paper for discussion at August workshop
	CPUC EE	July 2008	Sept. 2008	Review of IOU program descriptions to determine how to include impacts within CEC modeling framework	Initial 2009-2011 IOU Program Filing
	2009 IEPR	Aug 2008	Oct 2008	Conduct "meta-analysis" of program EM&V studies to obtain measure penetration data for use in creating saturation database	EE measure saturation database consolidating EE measure penetration across vintages and types of programs
B.Demand Forecasts	2009 IEPR	Summer 2008	Late Fall 2008	Initial revision of models to improve inclusion of EE programs	Preliminary Demand Forecast based on EE modifications of 2007 IEPR Forecast
	2009 IEPR	Late Fall 2008	Spring 2009	Second stage revision to allow inclusion of revised 2009-2011 IOU EE Program Filings	Revised Demand Forecast for adoption in 2009 IEPR including additional changes as a result of review process
C.Projection of Near-Term EE Program Impacts	2009 IEPR	Spring 2009	Summer 2009	• Unfunded 2012+ programs based on: (1) Itron EE Goals Study, (2) Itron 2012+ Scenarios, (3) IOUs EE Strategic Plan • 2011 Title 24 • AB 1109 & other policies	• Near-Term Incremental EE Forecast (a.k.a. Uncommitted EE Forecast) • "Managed" Demand Forecast (derived by subtracting near-term incremental EE forecast from adopted demand forecast)
D.Projection of Long-Term EE Potential Impacts	2010 IEPR Update (future IEPRs)	Fall 2009	2010?	• Enhanced EE Potential Studies • Itron's PIER Emerging Tech spreadsheet tool	• Long-term Incremental EE Forecast (a.k.a. The High End of the Supply Curve) • Fully Integrated Demand Forecasting & EE Potential Model (or functional Translator of CEC end-use level + ASSET measure-level + econ/demo econometrics)

II. Background and Status of Review/Buy-in by Others

The 2007 IEPR recommends a review of energy efficiency embedded in demand forecasts as the basis for identifying incremental EE effects from either near-term EE programs or long-term EE potential studies. A workshop receiving input from staff, the three IOUs, CPUC/ED, and others was conducted on March 11. Following the March 11 workshop, ESAD staff met with IEPR Committee and advisors on March 17. Four options were presented for developing a "workplan" as suggested by staff at the workshop. A version of this project plan was presented to the Committee. The Committee authorized its limited distribution to CPUC/ED staff for purposes of securing commitments to a mutually acceptable project.

A draft project plan was distributed to the CPUC/ED on May 16. A teleconference with the CPUC/ED was conducted on May 22, and suggested edits to the draft project plan were received on May 23. Broad agreement was noted by CPUC/ED staff. CPUC/ED staff noted their agreement to amend their contract with Itron to undertake tasks within elements A, B and C of this project plan. [See Table 1 for a summary of scope of the following detailed write-up.] A memo from Sean Gallagher to Sylvia Bender confirms this intent. This project plan incorporates some suggestions raised in that tele-conference, and the edited plan for improved coordination with the IOU EE rulemaking that will assist in quantifying program impacts.

Staff has segregated out the tasks and activities requiring direct action by Itron that will form the basis of an amendment to the CPUC/Itron contract in preparation for negotiations with Itron. This was delivered to CPUC/ED on June 5. After discussion, an agreement about certain tasks to be undertaken by Itron was made on July 17. An amendment to the CPUC contract with Itron was placed into the management approval process.

Pursuant to direction from the IEPR Committee, staff developed a notice and agenda for an August 12, 2008 workshop to provide an opportunity for additional interested parties to learn of this project and to comment on the proposed activities.

III. Elements of a Conceptual Project Plan

This is a conceptual project plan designed to identify the basic activities required by staff, and others, to achieve the three capabilities identified by the IEPR Committee. It encompasses four distinct efforts:

1. developing an overall project plan, marshalling resources within the CEC and from other organizations; make initial steps to improve characterization of IOU programs to improve quantification within the demand forecast; and prepare a chapter for the 2008 IEPR documenting progress on the topic;
2. prepare draft and final demand forecasts for the 2009 IEPR based upon revised demand forecast models and input assumptions that better correlates to existing programs, price response and market forces;

3. creation of a new capability to make projections of near-term program impacts incremental to the CEC demand forecast; and
4. creation of a new capability to make projections of long-term impacts from portions of energy efficiency potential that are identified as achievable under various program designs.

A. Near-Term Efforts to Develop a Collaborative Plan to Improve Demand Forecast-EE Quantification for the 2008 IEPR

This element of the project plan describes activities that are carried out during the period of the 2008 IEPR and that can be reported as a chapter within the 2008 IEPR.

Objective

The objective is to develop an overall project plan to improve how energy efficiency impacts are quantified, both in the demand forecast and for additional programs and goals, considered incremental to the demand forecast. A further objective is to coordinate among staff, CPUC/ED and utilities to achieve "buy in" to implement this project plan. Finally, staff will make some progress that can be documented in the 2008 IEPR.

Specific Products

- Materials to support an August 2008 IEPR Committee workshop that reviews this document; an improved taxonomy of terms to guide usage in all CEC and CPUC forums; and illustrations of how staff's demand forecast model could be improved to better address the issues raised in the 2007 IEPR.
- Assist CPUC/ED staff in reviewing IOU proposals for 2009-2011 programs filed in late July 2008. Determine whether there is sufficient detail to incorporate within staff demand forecast models as committed programs. If not, work to devise a "template" that IOUs would be required to use in improving the characterization of their program proposals. Work cooperatively to determine if an improvement in documentation issued as a CPUC order or ruling is warranted. The IOU product would be revised program characterizations (due in September) that would improve staff's ability to "fit" program characteristics into the existing/improved features of the demand forecasting models. These 2009-2011 program characterizations would allow an improved assessment of the "overlap" between programs and the demand forecast. [Staff, CPUC/ED]
- Review revised IOU program proposals and characterizations submitted in September 2008 and provide a summary for use in the 2008 IEPR. [Staff]
- Prepare a draft chapter for the 2008 IEPR that documents progress on the overall demand forecast--EE issue since the 2007 IEPR. [Staff]

Activities

- Develop a taxonomy of terms encompassing all of the factors included within potential studies and those within demand forecasts. Compare and contrast for apparent similarities and differences. [Itron, Staff]
- Facilitate getting improved characterization and analysis of proposed 2009-2011 EE programs:

    - Review EE program submittals from IOU when they are submitted in summer 2008; [Staff]
    - Provide CPUC/ED with suggested characterization details to improve ability to model programs within CEC models; [Staff]
    - Work with CPUC/ED to issue instructions to IOUs for revised EE program analyses. [Staff and CPUC/ED]
- Prepare a plan to identify the possible sources of EE program savings and how such sources have been, and could be, used in the demand forecast. [Itron, CEC Staff]
- Assess annual market penetration (sales) trends for specific efficiency measures. Compile saturation assumptions from CEC forecasts to compare to Itron program benchmarks in the potential study. [Staff, Itron]
- Examine measures promoted in programs compared to market effects in the demand forecasts. Align price and market effects with observable data from program evaluations, reported results of the potential study, etc. This will help narrow the overlap between program impacts and price or market effects. Focus analyses on high-value efficiency measures that account for significant amounts of current program savings and that are likely to be saturated in near-term years, such as lighting. This examination will illustrate how programs and standards influence the future adoption of such measures and how they are accounted for over time in the forecast. Compare treatment of measure decay and replacement in forecast with CPUC program treatment. [Staff, Itron, CPUC/ED]
- Identify a limited set of modifications to demand forecasting models to allow better integration of high efficiency measures motivated by IOU programs. [Staff]

Suggested Methods for Achieving the Objective
- Develop an overall project plan to enable all parties to see their role and schedule for activities. [Staff--with input from CPUC/ED and Itron]
- Propose amendments to the existing CPUC/Itron contract, based on an initial project plan and work with appropriate entities to get Itron's active involvement. [Staff, CPUC/ED, Itron]
- Conduct meetings with Itron and IOUs to implement the near-term portions of the plan that require efforts by these entities.
- Conduct a "policy" workshop to provide a forum to discuss progress toward this project plan. [IEPR Committee]

A. <u>Revised Demand Forecast for 2009 IEPR Cycle</u>

This element of the project plan describes activities that refocus expected 2008 and 2009 activities to result in a long-term demand forecast prepared by CEC staff for the 2009 IEPR, and that is intended to be used by the CPUC in directing IOU efforts undertaken within the 2010 LTPP process.

Objective
The objective for a long-term demand forecast is to reflect "most likely" demand for electricity given the full suite of economic and demographic drivers, market forces, and direct price response, as well as DSM program impacts from funded programs or adopted

standards. While "most likely" reflects the central tendency for those influences outside of the control of policy makers, it does not necessarily mean a point forecast if the uncertainties affecting the impact of these forces are considerable. On the other hand, it expressly excludes goals and goal-like aspirations that policy makers aspire toward, but have as yet not been willing to fund or otherwise make firm commitments to achieve.[3]

Specific Products

- Documentation of methods used to include EE measures or EE impacts in the Itron ASSET model and CEC staff demand forecast models, plus any improvements achieved by early 2009. [Itron, CEC Staff]
- Prepare an analysis of the incremental impacts of 2009 to 2011 EE programs using as inputs new program characterizations obtained from IOUs and the limited changes in staff's demand forecasting models that can be completed by early fall 2008. [Staff]
- Prepare a preliminary demand forecast in early 2009 for the 2009 IEPR, focusing on adjustments that more cleanly separate "committed" EE in the forecast (up through 2009-2011 EE programs) from "uncommitted" EE resulting from 2012-2014 programs or other longer-term goals. This update would represent the "first generation" of changes emphasizing high priority end-uses and measures for which existing data and analyses can be helpful.
- Prepare a revised demand forecast in late spring 2009 for the 2009 IEPR proceeding, which is a more fully updated forecast with "aligned" effects early enough for use by CPUC and IOUs in the "procurement" efforts of the forthcoming 2010 LTPP rulemaking.

Activities

- Describe the methods and sources of information used to "benchmark" Itron's ASSET model versus those used in CEC staff demand forecasting models. [Itron and Staff][4]
- Improve upon the initial database of measure saturation through time by compiling results for additional measures from program EM&V reports. [CPUC/ED and IOUs]
- Work to narrow range of overlap between market forces or price response included within the forecast from EE programs--by careful examination of measures promoted via programs versus measures or effects included in demand forecasts. Communicate with CPUC about this overlap as they evaluate program cost-effectiveness. [Staff]
- Revise the analysis of historic vintages of building standards to more clearly segregate impacts of building shell, equipment efficiencies, glazing, and other factors to enable linkage to utility new home programs that go beyond standards. [Staff][5]

[3] The concept of conservation "reasonably expected to occur (RETO)" cannot be satisfied with a demand forecast designed in this manner. An additional projection of the remaining RETO that is considered "uncommitted" must also be prepared in parallel with the demand forecast itself. Some resource planning applications might use just the demand forecast itself, while others might use the "uncommitted" DSM forecast as a resource for meeting demand described by the narrow set of DSM efforts.

[4] There is no "master" database of measure penetration summarizing impacts across programs.

[5] The building shell simulation tool, Micropas, could be used to determine a consistent set of savings for all vintages of Title 24 Building Standards.

- Process survey responses from previous RASS, CEUS and industrial sector data collection efforts to extract saturations and characteristics explaining customer consumption: [Staff][6] [7]
    - Devote staff resources to aligning price and market effects with observable data (EE program evaluations, Itron market effects analyses, IOU econometric analyses, other observations, etc.); [Staff]
    - Conduct analyses to allow inclusion of AB 1109 (Huffman, Statutes of 2007) impacts without double-counting of other programs or standards that influence lighting:
        - Make minor modifications to the staff demand forecasting models to allow lighting end-uses to be explicitly modeled as required to evaluate impacts of AB 1109; and [Staff]
        - Modify characterizations of IOU and other retrofit programs with lighting components. [Staff and IOUs]
- Make a series of modifications to demand forecasting models to allow better integration of high efficiency measures motivated by IOU programs:
    - Modify FORTRAN computer code to disaggregate some end-uses from a single vector into a matrix of differing efficiency levels; [Staff]
    - Acquire and process data on the distribution of appliance efficiency by level; [Itron, IOUs or Staff]
    - Populate the model's input data set with the data and estimate shifts as a function of market forces; [Staff]
    - Once improved characterization of IOU programs are available, revise distribution assumptions to reflect expected IOU program impacts; and [Staff]
    - Run the model parametrically to discern aggregate energy impacts of IOU program impacts. [Staff]
- Prepare a credible price forecast for use in preparing a new demand forecast in order to exercise upgraded "price effects" portion of the forecasting model. [Staff, IOUs, or CPUC/ED]
- Prepare for and conduct a "calibration bakeoff" that requires each forecast (CEC staff, IOUs, and Itron) to specify how it makes use of recorded data (consumption, DSM measure impact first year savings, DSM funding, measure and end-use saturation estimates, geographic location of customers, weather phenomena, etc.) and how the model "fits" to the entire set of data that are available. Use this process to determine whether staff's methods are omitting "load increasing" phenomena that ought to be inserted into the model, thus increasing the "pre-DSM" load forecast. [Staff, Itron, and IOUs]
- Prepare electricity demand forecast for adoption:
    - During late winter/spring 2009 for the 2009 IEPR proceeding release a more fully updated forecast with "aligned" program and market effects; [Staff]
    - Facilitate review through documentation, meetings and workshops; [Staff and others]

[6] Analysis and use of these survey results were planned for demand forecasts prepared for earlier IEPR cycles, but could not be accomplished due to Staffing limitations.
[7] Some effort is now underway in extracting results from the CEUS.

- By late spring, adopt a demand forecast for use by CPUC and IOUs in the "procurement" efforts of the forthcoming 2010 LTPP rulemaking. [Staff and Committee]

Suggested Methods for Achieving the Objective

- Develop a mechanism for CPUC/ED to provide its advice as the project proceeds. [Staff and CPUC/ED]
- Participate in the new 2008 Stanford Energy Modeling Forum on energy efficiency in load forecasts. [Staff]
- Prepare additional materials describing EE and other DSM measures in the various demand forecasts and conduct staff workshops/meetings with IOUs to compare with their in-depth assessment methods. [Staff , IOUs, and CPUC/ED]
- Develop working relationships with CPUC/ED staff, Itron, IOUs and POUs. [Staff]
- Form one or more "working groups" to facilitate direct communication at detailed technical levels. [Staff, IOUs, Itron]
- Conduct technical workshops and meetings. [Staff]
- Conduct one or two "policy" workshops to track progress and review results. [Committee]

B. <u>New Projection Capability for Uncommitted EE Program Impacts</u>

This element of the project plan describes the development of a new capability that does not now exist internal to the CEC.

Objective

The objective of this project plan element is to have a numeric projection of impacts from the subset of DSM activities that satisfies the definition of conservation reasonably expected to occur, but not yet considered committed. Examples are programs for the 2012-2014 IOU funding cycle not yet funded by the CPUC, or mid-term programs under discussion, but not yet sufficiently vetted to include in demand forecasts. This additional EE projection might be used in planning applications that desire to make use of a fully managed load forecast for their specific purposes. This is **not** an assessment of long term EE potential.

Specific Product for 2009 IEPR

- During spring to early summer 2009, within the 2009 IEPR proceeding, provide independent estimate of incremental EE from 2012-2014 IOU programs, next generation of Title 24 standards, or other reasonably well-specified policy options for consideration by the IEPR Committee. In conjunction with a baseline demand forecast that assuredly did not include such program impacts, the baseline demand forecast, and these EE program impacts, could represent a "managed" demand forecast.

Activities

- Revise input specifications for ASSET and rerun to quantify impacts from an emphasis on incremental program savings. [Itron]

- Create capability of quantifying future cycles of building and appliance standards. This might involve using the revised demand forecasting models, but with additional assumptions that characterize the incremental stringency of the next round of Title 24 standards. [Staff]
- Create and/or translate specifications of near-term programs in the terms that the revised demand forecast models can utilize (e.g. customer sectors, building types, measures, measure savings, etc.). [CPUC and IOUs]
- Create a parallel capability of assessing near-term EE program impacts that are incremental to those included within the CEC demand forecast:
  - Review Itron's SESAT model and its linkage to ASSET model; [Itron and CEC Staff]
  - Identify other options; [CEC Staff]
  - Select and implement a new modeling capability. [Staff and/or Staff Contractor]
- Prepare an assessment using the new capability, document assumptions and methods for two classes of programs:
  - Incremental impacts of a new round of Title 24 Building Standards using staff's upgraded demand forecasting models; [Staff]
  - Incremental impacts of the AB 1109 lighting reductions not achieved by programs in the demand forecast; [Staff]
  - Incremental impacts of 2012-2014 EE programs using the newly-developed EE projection capability. [Staff and/or Staff Contractor]
- Prepare or adapt methods from the Scenario Analyses Project for developing 8,760 hourly impacts for EE programs, so that such program impacts can be evaluated in production costing models. [Staff, Itron]
- Compare the incremental EE impacts to other sources of program impacts. [Staff, Itron, CPUC and IOUs]

Suggested Methods for Achieving the Objective

- Develop a mechanism for CPUC/ED to provide its advice as the project proceeds. [Staff and CPUC/ED]
- Work to obtain more precise definitions of near-term EE and other DSM programs that allow them to be analyzed at the measure level. [CPUC/ED and IOUs]
- Develop a new software projection capability for each IOU, POU or other suitable planning area to match to the geographic disaggregation in the CEC demand forecast, [Staff and Itron]
- Prepare and document incremental EE program impacts for IOUs. [Staff][8]
- New working papers and data extracts from staff's and IOU's models. [Staff, IOUs, and CPUC/ED]
- Participate in 2009 IEPR workshop on incremental EE program impacts. [Staff, CPUC and IOUs]

[8] This activity emphasizes IOUs since that is the current policy focus. A parallel effort should be undertaken for at least SMUD and LADWP, but whether these POUs will be cooperative is unknown. Future AB 2021 and SB 1037 efforts may discern greater motivation and cooperation from POUs than is currently understood to exist.

C. New Projection Capability for EE Potential Amounts and Costs

This element of the project plan describes the development of a new capability that does not exist internal to the CEC.

Objective
The objective for this element of the project plan is to create a DSM projection capability that can quantify amounts and costs of EE that draw upon the high end of EE potential, such as economic potential or achievable potential, as used in the 2007 IEPR Scenario Analyses Project or the E3 modeling of EE for the joint CPUC/CEC GHG proceeding. It is unclear whether the CEC wants to create its own independent capability to assess EE potential, or whether what is desired is a translator from the Itron ASSET model--thus continually relying upon a collaborative effort of CEC, CPUC and IOUs to fund Itron to make EE potential studies.

Activities
- Review conceptual and practical definitions of economic potential in Itron and POU potential studies: [Staff, CPUC/ED, Itron, others?]
  - Examine the definitions of costs included in economic potential and the sources for information about generation costs that will be "avoided;"
  - Evaluate the assumptions for retail rates and market potential (naturally occurring price response and non-programmatic evolution of market offerings);
  - Determine the degree to which achievable potential as a subset of economic potential is constrained by specific program designs or is a barrier applicable to all program designs; and
  - Based on review of above points, determine whether future potential studies should be modified.
- Assess options for developing an EE potential projection capability:
  - Prepare options; [Staff]
  - Assess pros and cons of options through discussions with stakeholders; [Staff, CPUC/ED, IOUs]
  - Select long-term option and path to get there. [Staff and Committee]
- Review Itron report in support of CPUC 2012+Beyond Goal Setting for concepts to use in establishing potential and macro goals. [Staff]
- Review features, and if desirable, acquire Itron spreadsheet model used to develop 2012+Beyond goals. [Itron and Staff]
- Create a system to "debit" measure penetration (as determined from enhanced measure tracking system described in Section III.b) from potential--to adjust previous potential for remaining potential. [Staff, CPUC/ED, IOUs]
- Work with stakeholders to develop a more thorough characterization of long-term emerging technologies that can be included within potential studies in a manner that does not double count potential savings with savings from other measures. [Itron, CPUC, IOUs, Staff]
- Attempt to develop an ability to use Itron and POU potential studies to develop improved estimates of magnitudes and costs of high penetrations of EE called for in joint GHG regulation decision (progress is limited by resources available):

- Work with Sy Goldstone to extract his knowledge of how Itron potential studies have been developed, how the ASSET model operates, and how it does/does not compare to CEC demand forecasting model architecture; [Staff]
- Work with selected POU representatives to determine what POU measure, program, and potential data is available.

- Establish functional capability to prepare EE load modifiers for use in the MarketSym or equivalent production cost model:
  - Review documentation provided by Navigant Consulting for Scenario Analyses Project to determine how estimates of potential in annual energy terms are processed; [Staff]
  - Adapt or replace linkages to potential or goal studies for future use. [Staff]
- Undertake a long-term effort with CPUC and IOUs to upgrade EE potential studies in the context of AB32 implementation plans, which includes:
  - Sponsor conceptual studies of sequencing of price effect, programs, standards, etc., for use in attribution between programs;
  - Develop an ability to use Itron and POU potential studies to develop improved estimates of magnitudes and costs of high penetrations of EE called for in a joint GHG regulation decision that is expressly linked to the demand forecast as a point of reference for incremental effects.
- Undertake a fundamental effort to align demand forecast end-uses, Itron ASSET model measure characteristics, and the fundamental building stock and econ/demo projections used as assumptions in baseline demand forecasts and EE program/potential impact projections:[9] [Staff, Itron, CPUC/ED]
  - Some initial product based on Itron's 2008 spreadsheet model used for the 2012+Beyond Goals study should be able to be implemented in house to create an projection capability;
  - Developing a better projection capability could take many paths, but continuing with a spreadsheet-based model linked to a modified ASSET is one option.

Suggested Methods for Achieving the Objective

- Develop a mechanism for CPUC/ED to provide its advice as the project proceeds. [Staff and CPUC/ED]
- Digest materials already on hand and consult with original authors, as needed.
- Establish a multi-year working group with workplans, budgets, schedules, management oversight, etc.
- Work with CPUC/ED to fund Itron to undertake efforts to better link the measure opportunity assumptions in the potential studies with those used in the CEC demand forecast.

[9] For example, Staff's model could benefit from segregating lighting as a separate end-use from plug loads and other miscellaneous consumption to allow a more explicit treatment of lighting retrofit measures. This might already be required to analyze the impacts of the Huffman bill requirements.

Specific Product for 2009 IEPR Cycle

- It is unclear what product is needed for key policy questions, or whether some product of any kind is needed to show progress in developing this capability to satisfy external critics.