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California Energy Commission
Docket Office, MS-4
Re: Docket No. 11-IEP-1C, 11-IEP-1K, 11-IEP-1L
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Re: California Energy Commission ("Energy Commission") Docket No. 11-IEP-1C, 11-IEP-1K, 11-IEP-1L: 2011 IEPR - Electricity, Natural Gas and Transportation Energy Forecasts

To Whom It May Concern:

Southern California Edison Company ("SCE") appreciates the Energy Commission's efforts in developing the 2011 Integrated Energy Policy Report ("IEPR") and inviting interested stakeholders to participate in the Energy Commission Joint Committee Workshop on Economic, Demographic, and Energy Price Inputs for Electricity, Natural Gas and Transportation Fuel Demand Forecasts ("Workshop") on February 24, 2011. The Workshop gave interested stakeholders an opportunity to discuss and provide suggestions on the proposed methods, inputs, and assumptions which will be used for the long-term energy demand assessments and forecasts to develop the recommendations for the 2011 IEPR. SCE appreciates the opportunity to provide the following written comments to the Workshop.[1]

Electricity Demand Forecast and Scenarios

SCE supports the Energy Commission's inclusion of econometric-based forecasts of energy demand in addition to an end-use approach. By using both forecasting approaches, the Energy Commission will have a greater ability to reconcile its forecasting results with those of SCE, Pacific Gas and Electric Company ("PG&E") and San Diego Gas and Electric Company ("SDG&E") (SCE, PG&E and SDG&E are collectively referred to as "IOUs") as the IOUs all utilize an econometric approach to produce electricity demand forecasts.[2]

One concern that SCE has with the electricity demand forecast and scenarios is that the electricity rate assumption from the Energy and Environmental Economics ("E3") Greenhouse Gas

[1] SCE was granted an extension to March 11, 2011 to provide written comments to the Workshop. SCE appreciates this extension from the Energy Commission.

[2] SCE understands that PG&E and SDG&E also utilize econometric-based forecasts for energy demand.

Calculator Electricity Rate Scenario S3 ("S3")[3] may be too low. The E3 S3 case assumes that electricity rates increase by 8 percent in real terms from 2009 to 2022,[4] whereas the California Public Utilities Commission's ("CPUC") *33% Renewables Portfolio Standard Implementation Analysis, Preliminary Results* (June 2009)[5] (the "Study") indicates that achievement of the 33 percent renewable target would increase statewide electricity rates by 28 percent in real terms between 2008 and 2020.[6]

Electric Transportation

At the Workshop, the Energy Commission requested information relating to residential plug-in electric vehicle ("PEV") rate plans offered by the IOUs. SCE currently provides two specific PEV rate plans.[7] (1) Home & Electric Vehicle Plan (TOU-D-TEV), a time-of-use rate that is based on SCE's standard residential rate plan with lower rates at night when PEVs are more likely to be charged; and (2) Electric Vehicle Plan (TOU-EV-1), a separately metered time-of-use PEV rate. A detailed explanation of the different rate plans is available on SCE's website at http://www.sce.com/PowerandEnvironment/PEV/rate-charging-options.htm.

SCE believes that in order to more accurately forecast the cost of electricity for PEV customers, the Energy Commission's assumptions should take into account off-peak and on-peak charging loads. SCE provides its customers with specific PEV rates that vary substantially depending on time of usage (i.e., on-peak or off-peak usage). As a result, an average of overall rates would not accurately reflect the cost of electricity for PEV customers. Additionally, SCE suggests considering a higher adoption rate of PEVs corresponding to the high economic scenario and a lower adoption rate of PEVs in the low economic scenario to evaluate the potential impacts of a more descriptive level of uncertainty. Finally, SCE encourages the Energy Commission to consider including other sources of potential future load increase such as cold ironing at ports, electric forklifts, electrified truck stops and electric rail extensions and conversions.

Natural Gas Forecast

SCE supports the Energy Commission's efforts in developing a blended natural gas forecast that will combine the New York Mercantile Exchange Futures ("Futures") market prices for the near term with a fundamental, model-driven forecast for the longer term. SCE recommends that the blending occur in a gradual manner to avoid a large shift in prices during the transition from Futures forecasting to model-driven forecasting.

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[3] *See* 2011 IEPR Preliminary Electricity and Natural Gas Demand Forecast Rate, Efficiency, and Self Generation Assumptions presentation available at http://www.energy.ca.gov/2011_energypolicy/documents/2011-02-24_workshop/presentations/05_CEC-Kavalec_rate_assump_feb_24v2.pdf, pgs. 9 and 12.

[4] *Id*. at 12.

[5] The Study is available at http://docs.cpuc.ca.gov/PUBLISHED/GRAPHICS/102354.PDF.

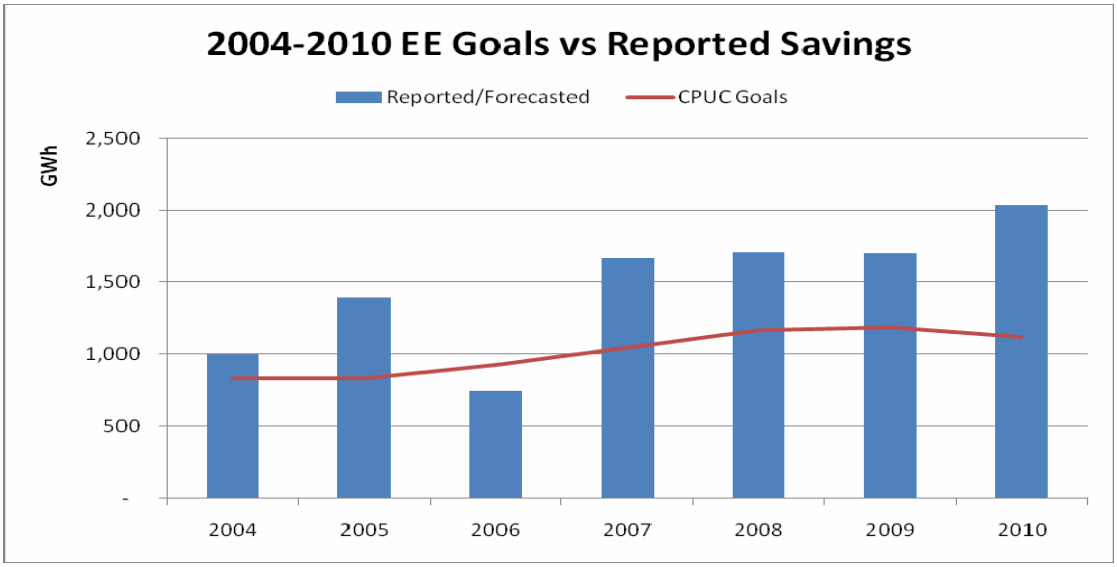
[6] The Study also indicates that the achievement of a 20 percent Renewables Portfolio Standard would increase statewide electricity rates by 20 percent in real terms between 2008 and 2010. Further, the Study indicates statewide electricity rates are expected to increase by 16.7 percent in real terms between 2008 and 2020 even when there is no Renewables Portfolio Standard.

[7] In addition, customers may remain on SCE's standard residential rate plan (Schedule D).

SCE agrees with the Energy Commission that multiple scenarios and plausible ranges of long term natural gas price forecasts are necessary as uncertainties in the natural gas market make it difficult to create a single accurate forecast. SCE respectfully requests a reasonable review period of approximately two weeks to study the reference case assumptions[8] and to provide specific feedback prior to the Energy Commission conducting additional forecast scenarios or sensitivities. SCE also requests a similar review process for the final results prior to the forecast being finalized for the 2011 IEPR. In addition, SCE encourages the Energy Commission to consider the impacts of seasonality on natural gas supply, demand and prices. SCE encourages the Energy Commission to develop monthly natural gas price forecasts as opposed to annual average forecasts because natural gas demand and price significantly impacts SCE on a monthly basis.

Energy Efficiency ("EE")

SCE would like to commend the Energy Commission for its efforts to clearly communicate its proposed EE scenarios. In response to the Energy Commission's proposed scenarios, SCE would like to offer a set of alternate proposals for consideration. SCE proposes using SCE's current 2010-2012 program plans[9] for all EE savings forecast during the committed[10] period. As shown in the figure below, SCE's EE programs have a long, successful track record of delivering savings to its customers and are the most reliable and reasonable expectation of what will occur.



Source: D.04-09-060, D.09-09-047

Note: 2004-2008 results were reported in net savings, 2009-2010 results were reported in gross.

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[8] The Energy Commission indicated at the Workshop that it intends to use the reference case assumptions provided by the Energy Institute of Rice University.

[9] SCE's 2010-2012 program cycle compliance filing and the program designs were specifically designed to be cost-effective, reliable and feasible so as to exceed the CPUC adopted EE savings goals promulgated in Decision ("D") 04-09-060 and D.09-09-047. SCE's 2010-2012 program cycle Compliance Filing (2410-E) dated November 23, 2009 was approved by the CPUC on April 8, 2010.

[10] The Energy Commission has defined committed activities as EE activities which have current delivery mechanisms that exist and have been fully authorized and funded by the associated regulatory agency. It is generally accepted by the Energy Commission, CPUC and the IOUs that the committed period is defined as the current EE program cycle (2010-2012).

The Energy Commission's modeling process and outputs do not easily lend themselves to clearly attributing the effects of EE program savings to IOU EE programs. The Energy Commission's 2009 IEPR model output of historical energy savings consists of four saving sources: (1) Naturally Occurring Savings; (2) Utility and Public Agency Programs; (3) Appliance Standards; and (4) Building Standards.[11] Some IOU EE program savings have been allocated to other saving sources.[12] As a result, the Energy Commission's modeling process and outputs do not accurately portray the savings from IOU EE programs, which contribute a substantial amount of energy savings to several saving sources. The Energy Commission has pledged to work with National Resources Defense Council and other stakeholders to accurately portray EE savings within its forecast by better labeling the model outputs and further documenting the treatment of IOU EE savings.

SCE understands that two previously uncommitted[13] initiatives (2010 Title 24 update and Huffman Bill (through Title 20)) have been reclassified as committed by the Energy Commission and partially included in its end use model. SCE requests further clarification of the impacts that these reclassifications might have on uncommitted EE savings, specifically, in identifying the amount of EE overlap in the Energy Commission forecast.

SCE supports the Energy Commission's plan to incorporate the Total Market Gross ("TMG") goals peak-to-energy ratios ("P/E")[14] in addition to its P/E ratios utilized in its 2009 IEPR forecast. SCE urges the Energy Commission to use the TMG goals P/E ratios in order to consistently apply EE goals across all proceedings.

SCE supports a methodology that deploys a reasonable approach to assumptions regarding the potential for expanded reliance on energy efficiency, bounded by a prudent effort to build flexibility into the resource planning process. SCE proposes bounding the EE scenarios with Low EE (High Demand) and High EE (Low Demand) cases. The Mid EE (Mid Demand) case can be considered a base case. These scenarios, as shown below, reflect the full range of uncertainties in the potential impact of different EE programs and strategies included in the TMG goals.

Scenario Name	Scenario Description
Low EE (High Demand)	TMG with 2004 P/E ratios with modified Big, Bold Energy Efficiency Strategies ("BBEES") to reflect continued IOU program savings
Mid EE (Mid Demand)	TMG with low BBEES (2010 Long Term Procurement Plan) and 2004 P/E ratios
High EE (Low Demand)	TMG Goals with 2004 P/E ratios

[11] California Energy Demand 2010 Adopted Forecast, CEC-200-2009-012-CMF, p. 8.

[12] Incremental Impacts of Energy Efficiency Policy Initiatives Relative to the 2009 Integrated Energy Policy Report Adopted Demand Forecast, Attachment A: Technical Report, CEC-200-2010-001-ATA, Chap. 2.

[13] The Energy Commission has defined uncommitted activities as EE activities that will occur in future delivery mechanisms that have not been fully developed, authorized, and/or funded by the associated program administrator or regulatory agency. It is generally accepted by the Energy Commission, CPUC and the IOUs that the uncommitted period is defined as 2013-2022 for the 2011 IEPR cycle.

[14] *See* D.08-07-047 (August 1, 2008).

Low Energy Efficiency Case

SCE proposes replacing the BBEES savings with a current estimate of the trajectory of savings from SCE's New Construction, Small HVAC, and Low Income Energy Efficiency programs. SCE believes that these changes will be more reflective of the lower bound of TMG goal uncertainty given the significant challenges facing BBEES.[15]

In addition, assumed Huffman Bill[16] savings are likely overstated given changes in the lighting efficiency market since 2007, such as the introduction of 72 watt incandescent light bulbs. However, lumen output data does not currently exist to adequately model the impact of the savings attributable to the Huffman Bill.[17]

Mid Energy Efficiency Case

As directed in the 2010 LTPP[18], SCE proposes using the mid-case results from the Energy Commission's Incremental Impact of Energy Efficiency Policy Initiatives Report[19] for all values, except BBEES, for which the low-case results should be used. This is appropriate given the significant challenges to the BBEES discussed above.

High Energy Efficiency Case

The CPUC 2008 Goals Study characterized the TMG goals as stretch goals. SCE proposes the use of the TMG goals as promulgated in the TMG Goals Decisions[20] or as depicted in the Energy Commission's Incremental Impacts of Energy Efficiency Policy Initiatives Report adjusted to reflect the 2004 P/E ratios.

SCE recommends that, like the 2009 IEPR forecast, uncommitted EE should continue to be calculated and reported outside of the 2011 IEPR load forecasting modeling effort, and that the use of uncommitted EE savings be applied only to resource planning activities.

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[15] *See* Incremental Impacts of Energy Efficiency Policy Initiatives Relative to the 2009 Integrated Energy Policy Report Adopted Demand Forecast, Attachment A: Technical Report, CEC-200-2010-001-ATA, p. 68 ("…regardless of the assumed delivery mechanism, achieving the specific market penetration rates for Zero Net Energy ("ZNE") new construction reflected in the BBEES targets requires, by the CPUC's own characterization, 'an aggressive and creative action plan.' Relative to IOUs programs, Title 24, the AB 1009 lighting standards, and federal appliance standards, therefore, it is reasonable to describe the outcomes associated with the BBEES initiatives for ZNE homes and building as highly uncertain.")

[16] Assembly Bill 1109.

[17] *Id.* at 66.

[18] Administrative Law Judge's Ruling Modifying System Track I Schedule and Setting Prehearing Conference, R.10-05-006, February 10, 2011, p. 10.

[19] Incremental Impacts of Energy Efficiency Policy Initiatives Relative to the 2009 Integrated Energy Policy Report Adopted Demand Forecast, May 2010, CEC-200-2010-001-CTF.

[20] *See* D.08-07-047 (August 1, 2008).

In closing, SCE appreciates the opportunity to provide comments on the Energy Commission's proposed methods, inputs, and assumptions to be used for the long-term energy demand assessments and forecasts in the 2011 IEPR.

Very truly yours,

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