Comments of the Natural Resources Defense Council (NRDC) on the *2011 IEPR – Electricity, Natural Gas, and Transportation Energy Preliminary Forecast*
Docket Numbers 11-IEP-1C, 11-IEP-1K, 11-IEP-1L
March 07, 2011
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I. Introduction and Summary

The Natural Resources Defense Council (NRDC) appreciates the opportunity to offer these comments on the California Energy Commission's (CEC) *California Electricity, Natural Gas, and Transportation Energy Preliminary Forecast* (Preliminary Forecast). NRDC is a non-profit membership organization with a long-standing interest in minimizing the societal costs of the reliable energy services that Californians demand. We focus on representing our more than 124,000 California members' interest in receiving affordable energy services and reducing the environmental impact of California's energy consumption. Our comments focus solely on the energy efficiency estimates in the Staff Forecast, and are summarized below:

- The energy efficiency estimates embedded in the Preliminary Forecast radically reduce past CEC estimates of savings attributed to utility programs.
- The efficiency estimates from programs are incommensurate with estimates from the California Public Utilities Commission and from neighboring regions that have similar histories of energy efficiency.
- NRDC recommends that the final demand forecast use a single total estimate of energy savings as the CEC demand forecast model is not designed to determine attribution of energy savings among various policies.
- We recommend that the 2011 IEPR retract the graph attributing historical energy savings to various policies and sources that was presented in the 2009 IEPR since the depiction of savings from utility programs was inaccurate.
- Since the IEPR is California's preeminent report on the state of energy policy, we recommend that the CEC create a process specifically dedicated to accurately depicting California's historical energy efficiency savings caused by various policies.

II. Discussion

NRDC acknowledges the challenging task of determining the amount of energy efficiency savings attributable to codes and standards, utility programs, and naturally occurring effects and greatly appreciates the hard work of the Demand Analysis Working Group (DAWG) over the past couple years. We have actively participated in the numerous working group meetings and worked with the CEC staff to better understand the underlying data and methodologies used to determine the estimate of energy efficiency in

the demand forecast. We greatly appreciate the CEC staff and participants of the DAWG for all their hard work and for making themselves available to discuss issues surrounding the treatment of efficiency in the demand forecast. We look forward to continuing the collaborative effort and to resolving remaining concerns.

Over the past several years, NRDC raised serious concerns and questions as to how the CEC determines attribution of energy savings among its codes and standards, the utility programs, and "naturally occurring" savings.[1] The current working group has shared information that confirms that there are indeed significant shortcomings in the assumptions and estimates of historical energy efficiency. As such, ***it would be inaccurate for the Commission to adopt the proposed forecast that contains serious errors in the determination and attribution of energy efficiency savings.*** Instead, we urge the CEC to use only the total amount of energy efficiency savings, which is the necessary information for a demand forecast, and not attempt to attribute savings until a further process is developed to specifically address the historical attribution of California energy savings. Since stakeholders within California as well as across the nation often use the information published by the CEC as the official record of California's accomplishments related to energy policies, we strongly recommend that the CEC establish a process specifically focused on accurately portraying the history of California's energy efficiency policies and savings.

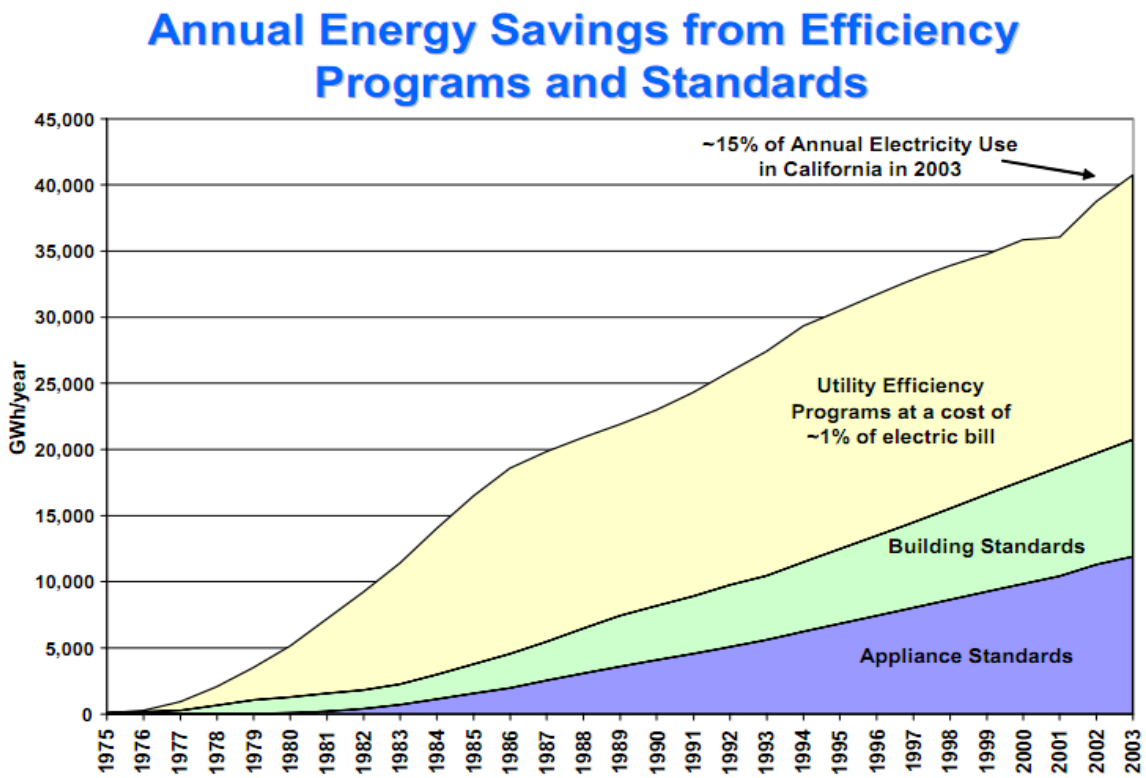
1. The energy efficiency estimates embedded in the Preliminary Forecast radically reduce past CEC estimates of savings attributed to utility programs.

The CEC has published estimates of the cumulative impact of energy efficiency programs and codes and standards over the years. For example, in both the Energy Action Plan II of 2005, and the CEC Loading Order Staff Paper[2], the CEC published the following

[1] E.g.: NRDC, Comments of the Natural Resources Defense Council on the Committee Draft of the 2007 Integrated Energy Policy Report, Docket Number 06-IEP-1A (October 19, 2007); Comments of the Natural Resources Defense Council on Energy Efficiency and Forecasting, Docket Number 08-IEP-1 (March 6, 2008); NRDC, Comments of the Natural Resources Defense Council on Energy Efficiency and Forecasting, Docket Number 08-IEP-1C (August 19, 2008); NRDC, Comments of the Natural Resources Defense Council on the California Energy Demand 2010-2020, Staff Revised Forecast, Second Edition, Docket Number 09-IEP-1C (November 13, 2009); NRDC, Comments of the Natural Resources Defense Council on the Draft Staff Report "Incremental Impacts of Energy Policy Initiatives Relative to the 2009 Integrated Energy Policy Report Adopted Demand Forecast" Docket Number 09-IEP-1C (February 10, 2010).

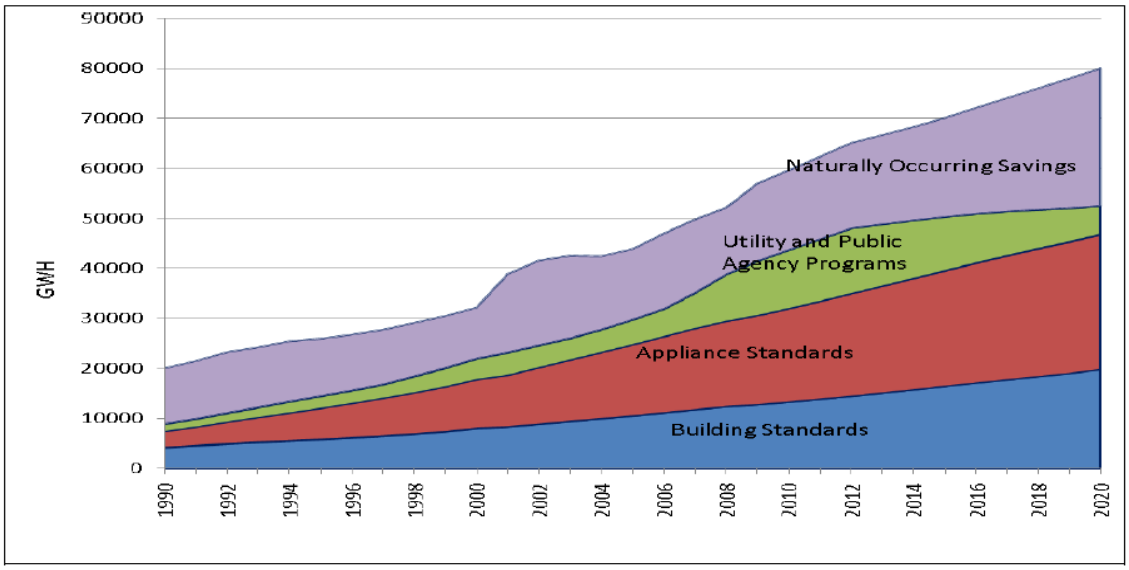
[2] CEC, Implementing California's Loading Order for Electricity Resources, Staff Report, CEC-400-2005-043 (July 2005). Available at: http://www.energy.ca.gov/2005publications/CEC-400-2005-043/CEC-400-2005-043.PDF.

graph:[3]



However, in the 2009 IEPR Demand Forecast, the CEC published the following graph that dramatically changed the picture:

Figure 159: Distribution of Efficiency/Conservation Consumption Savings by Source



Source: California Energy Commission, 2009

[3] California Energy Commission & California Public Utilities Commission, *Energy Action Plan II*, Implementation Roadmap for Energy Policies, at 5 (October 2005). Available at: http://docs.cpuc.ca.gov/word_pdf/REPORT/51604.pdf.

The CEC's 2009 graph reduces the cumulative savings attributed to utility programs ***by over 75%***.[4] In some historical years, the savings attributed to utility programs were reduced by 92% (i.e., the CEC only used 8% of the savings that were reported in those years).[5] These extreme reductions were made without an adequate public process before the CEC, conducted in the absence of any evaluation studies by or on behalf of the CEC, incommensurate with CPUC evaluations of historical savings, and incommensurate with similar estimates of efficiency in similar neighboring regions. For these reasons, among others,[6] it would be unreasonable if the CEC were to adopt these drastic reductions of savings attributed to utility programs.

2. The efficiency estimates from programs are incommensurate with estimates from the California Public Utilities Commission and from neighboring regions that have similar histories of energy efficiency.

The CEC staff determined the current estimate of utility program energy savings by making numerous adjustments to program saving results that were reported by the utilities to the California Public Utilities Commission (CPUC) using established CPUC evaluation, measurement, and verification (EM&V) protocols and reporting requirements. Additionally, the CPUC historically evaluated efficiency program savings and determined energy savings estimates following rigorous ex-post evaluation through the Annual Earnings Assessment Proceedings.[7] These savings estimates, which were adopted by the CPUC following formal public proceedings, were significantly reduced by the CEC's adjustments used in the demand forecasting process. However, there is no compelling justification for these reductions, nor a reasonable explanation of why they would be a more reliable estimate of savings than those determined through the CPUC's formal protocols and public process.

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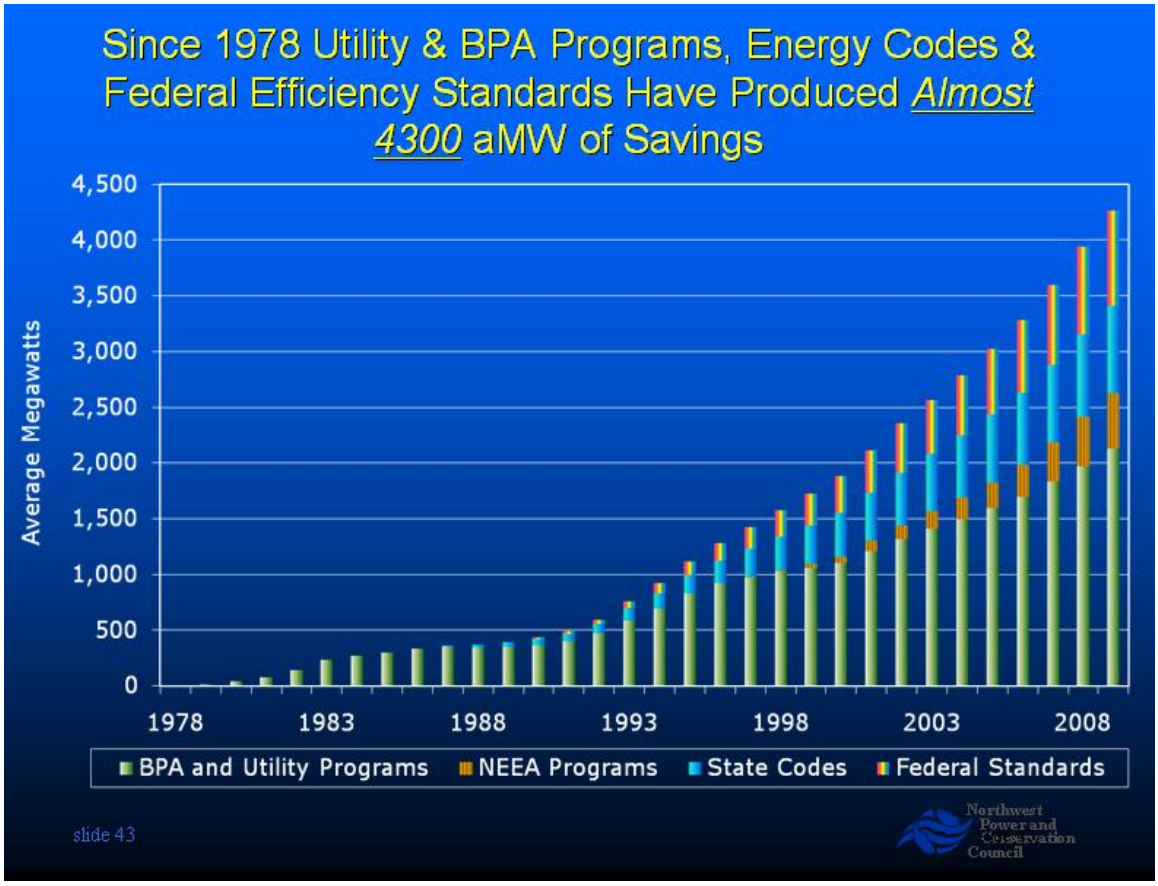
[4] The 2005 Energy Action Plan II estimates of cumulative utility program savings were 17,579 GWh for the most recent year, 2003. The 2009 IEPR reduced the amount attributed to utility programs to 4,273 GWh. This amounts to a 76% reduction. 2009 data from: CEC, California Energy Demand 2010-2020 Adopted Forecast, p. 241 (December 2009). Available at: http://www.energy.ca.gov/2009publications/CEC-200-2009-012/index.html. 2003 data provided by CEC, Sylvia Bender.

[5] Demand Analysis Working Group, Historical and Committed IOU Energy Efficiency Program Impacts – Data Sources and Assumptions for the 2009 IEPR Forecast, Pre-1998 Efficiency Program Savings by Category (February 24, 2011).

[6] *Supra* note 1.

[7] "[In 1993] by Decision (D.) 93-05-063, the Commission established the AEAP as the forum for evaluating earnings claims for utility energy efficiency (EE) and low income energy efficiency (LIEE) programs. The Commission also designated the AEAP as the proceeding for the utilities to submit annual reports on EE and LIEE accomplishments, and measurement and evaluation activities." CPUC, Opinion Addressing 2005 and 2006 Annual Earnings Assessment Proceedings, D-06-09-038, at 1 (September 21, 2006). Available at: http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/60064.pdf.

Furthermore, these newer CEC estimates are incommensurate with how our neighbors in the Pacific Northwest estimate savings from efficiency programs, which are similar to those in California[8]:



Similar to how savings were assessed among programs and codes and standards historically by the CEC (e.g. in the 2005 Energy Action Plan II), the Northwest Power and Conservation Council (NWPCC) estimates cumulative savings from both utility programs and codes & standards. The Northwest efficiency program administrators have been running programs since the 1970s, like California, and have been running programs similar in nature to those of California. The NWPCC estimates about half of the energy savings are attributed to utility programs, similar to the CEC's findings prior to the 2009 IEPR. The NWPCC estimate is commensurate with how savings were attributed in the 2005 Energy Action Plan II. However, the CEC's Preliminary Forecast proposes to use drastically lower values, as described above, which are incommensurate with how our neighboring region estimates efficiency. We recommend that the CEC consult with the NWPCC to compare methodologies and assumptions to better understand how program

[8] Northwest Power and Conservation Council, presentation provided by Tom Eckman.

savings are accounted for and to develop an improved methodology to track California's historical efficiency savings from various sources.

3. NRDC recommends that the final demand forecast use a single total estimate of energy savings as the CEC demand forecast model is not designed to determine attribution of energy savings among various policies.

The CEC demand forecast is designed to project an absolute level of consumption, which is influenced by the total amount of energy savings in the state. The forecast model and methodology is not designed to determine the particular sources or policies that contribute to the total amount of historical energy savings. For example, the forecasting model shows that there were no savings from the industrial sector from utility programs. While such treatment of savings might be compensated for in other parts of the forecasting model, it does not correctly assess the savings that came from the utility programs. Additionally, the forecasting model will change the amounts of energy savings attributed to utility programs and naturally-occurring depending on the order in which it is run. While such treatment of savings might still yield an accurate total amount of energy savings, it does not correctly determine how much savings are coming from utility programs. NRDC has raised numerous additional concerns regarding how savings are treated.[9] Because the forecasting methodologies are not intended to determine attribution, it would be inappropriate for the CEC to adopt the attribution results as part of the demand forecast. Instead, NRDC recommends that the demand forecast use a single total estimate of energy savings.

4. We recommend that the 2011 IEPR retract the graph attributing historical energy savings to various policies and sources that was presented in the 2009 IEPR since the depiction of savings from utility programs was inaccurate.

In the 2009 IEPR, the CEC acknowledged that uncertainties remained regarding attribution of savings in the demand forecast: "Staff made no assumptions concerning interactive impacts between utility programs and market changes, potentially underattributing savings effects of utility programs."[10] Additionally: "Because higher rates may spur both voluntary actions and participation in utility programs, some naturally occurring savings may be attributable to utility programs."[11] Since 2009, additional uncertainties about the process to determine attribution have surfaced, as described above.

[9] *Supra* note 1.
[10] CEC, California Energy Demand 2010-2020 Adopted Forecast, CEC-200-2009-012-CMF, p.238 (December 2009).
[11] *Id.*

In addition to the technical reasons why the 2009 graph should be retracted, there are significant policy concerns about such a portrayal of energy savings. If policymakers were to erroneously conclude based on the 2009 IEPR graph that efficiency programs have had little effect and that savings would have largely occurred without programs to overcome market barriers, it could severely undermine the state's commitment to energy efficiency. NRDC recommends that the CEC retract the graph of historical energy savings attributed to various policies and sources, from the 2009 IEPR.

5. **Since the IEPR is California's preeminent report on the state of energy policy, we recommend that the CEC create a process specifically dedicated to accurately depicting California's historical energy efficiency savings caused by various policies.**

Given the import of the state's biennial energy report and the complications with historical attribution of savings in the 2009 IEPR and currently in 2011 IEPR process, NRDC recommends that the CEC create a process specifically dedicated to accurately depicting California's history of energy efficiency. These topics are challenging and the NRDC commends the CEC and the DAWG for all their efforts in discussing these issues.

California has made remarkable progress over the last 40 years at improving energy efficiency through an integrated effort of public interest research and development, energy efficiency programs, and the CEC's building codes and appliance standards. Each of these key policies has worked in tandem with the others to move markets toward more efficient products and services. State law and the CEC's policy have made cost-effective energy efficiency the state's top priority energy resource. Therefore, it is essential that the CEC accurately track the state's progress at capturing energy savings through various policies. Today, California needs the benefits that efficiency can provide more than ever as it seeks to stimulate the economy, reach aggressive GHG reduction goals, and save customers money on their energy bills

III. Conclusion

NRDC appreciates the opportunity to comment on the 2011 Preliminary Demand Forecast. It is crucial that the CEC regularly publish accurate estimates of the cumulative impact of the state's numerous efficiency efforts to document progress towards the state's goal of capturing all cost-effective savings and ensure continued strong support for key energy efficiency policies. Without an accurate representation of the state's historical accomplishments, the state's top priority energy resource could be jeopardized. We greatly

value the efforts and the extensive task undertaken by the staff and working groups to date, and thank you for considering our recommendations.