Comments of the Natural Resources Defense Council (NRDC) on the *Final 2011 Integrated Energy Policy Report (IEPR)*

Docket Number 11-IEP-1A
Final 2011 IEPR
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Submitted by:
Siddhartha Oza, Lara Ettenson, and Sierra Martinez

NRDC appreciates the opportunity to offer these comments on the Final 2011 Integrated Energy Policy Report (IEPR). NRDC is a nonprofit membership organization with a long-standing interest in minimizing the societal costs of the reliable energy services that Californians demand. We represent our nearly 100,000 California members' interests in receiving affordable energy services and reducing the environmental impact of California's energy consumption. We commend the California Energy Commission (CEC) Staff for the considerable effort involved in creating this Final Report and applaud the overall focus of the Final IEPR on increasing energy efficiency and meeting renewable energy targets.

However, we continue to strongly urge the CEC to include expected energy efficiency in its projections of energy consumption. The CEC has calculated the amount of energy efficiency it expects, but chooses not to include it. It is reasonable to include such savings based on decades of experience and achievements. Furthermore, excluding such information produces an inaccurate energy demand forecast and is inconsistent with state policies.

As noted in Chapter 8 "Electricity and Natural Gas Demand Forecast" of the January 25, 2012 Final IEPR, "Staff will release a revised [California Energy Demand] forecast in mid-February and expects to adopt a final version in early spring 2012."[1] NRDC strongly recommends that this revised CED, in addition to the energy forecast in the IEPR, include savings from future energy efficiency programs.

[1] California Energy Commission, 2011. ***2011 Integrated Energy Policy Report.*** Publication Number: CEC-100-2011-001-LCF. p.99.

I. Discussion

1. NRDC urges the CEC to include projected energy efficiency in the forecast, which would produce a more accurate forecast, complies with California state policies, and is consistent with other state agencies.

Since 2003, NRDC has repeatedly recommended that the CEC include energy efficiency in demand forecasts.[2] However, nearly nine years later, the 2011 Final IEPR's energy consumption projections still exclude all savings from future energy efficiency programs. This exclusion inaccurately forecasts energy growth from 2012-2022 to be ***48% higher*** than it will likely be when accounting for future energy efficiency.[3] Moreover, excluding energy efficiency creates inconsistency with other state agencies and state policy. The California Public Utilities Commission (CPUC) and the California Air Resources Board (CARB), both include future energy efficiency in their energy and emissions projections.

Per California law, the utilities integrate expected savings from efficiency into their long term procurement planning processes, which are reviewed and approved by the CPUC.[4] The CPUC recently conducted this process and found that including future efficiency substantially reduces projected demand, eliminating the need for **11 large (500 MW) power plants**. (see Figure 1 below). Furthermore, CARB depends on energy efficiency in its assessment of how California will reduce the business as usual emissions through 2020. Efficiency is expected to reduce emissions by 11.9 MMTCO2E by 2020.[5] Also, it is important to note that CARB relies on these projected savings despite the fact that all future programs would be considered "uncommitted" according to CEC staff (i.e., they do not have final funding yet).[6] Forecasting this future efficiency is essential, as California will not meet its strong climate goals without it.

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[2] "Comments of the Natural Resources Defense Council (NRDC) on the CEC Draft Reports," February 28, 2003.

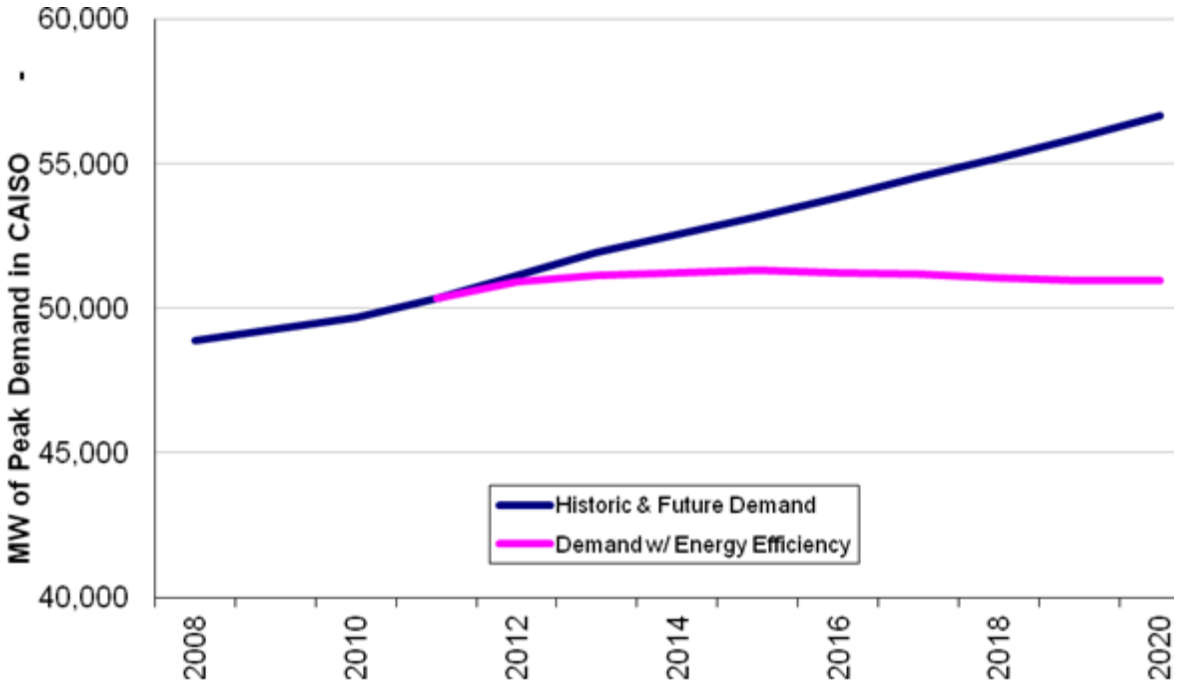
[3] For more on this matter, see Attachment A - Excerpt from NRDC Comments on the Draft IEPR - December 23, 2011.

[4] "The Legislature finds and declares that, . . . a principal goal of electric and natural gas utilities' resource planning and investment shall be to minimize the cost to society of the reliable energy services that are provided by natural gas and electricity, to encourage the diversity of energy sources through improvements in energy efficiency . . ." Pub. Util. Code § 701.1(a). "The electrical corporation will first meet its unmet resource needs through all available energy efficiency and demand reduction resources that are cost effective, reliable, and feasible." Pub. Util. Code § 454.5(b)(9)(C).

[5] California Air Resources Board, Status of AB 32 Scoping Plan Recommended Measures, p. 3 (July 22, 2011). Available at: http://www.arb.ca.gov/cc/scopingplan/status_of_scoping_plan_measures.pdf.

[6] "Achievement of these emission reductions is dependent on continued funding and implementation of efficiency programs." *Id.* at 3.

Figure 1: Electricity Demand in California ISO From 2008 to 2020[7]



For the CEC to ignore future efficiency in its forecast sends the wrong message that California is not expecting to reduce demand through efficiency. It also creates confusion as to the inconsistencies among agencies, and could be perceived as different commitment levels across California agencies. Rather, the CEC, CPUC and CARB should be sending the singular strong message that California is depending heavily on efficiency as the first procurement resource to substantially reduce greenhouse gas emissions and reduce our energy consumption.

[7] CPUC, Revised Scoping Memo Assumptions, Populated Load & Resource Tables for System, Scenario: 33% Trajectory (2011). Available at: http://www.cpuc.ca.gov/PUC/energy/Procurement/LTPP/LTPP2010/2010+LTPP+Tools+and+Spreadsheets.htm. Demand from 2008 and 2009: CEC, IEPR, Demand Forecast, Form 1.5b (2009). Available at: http://www.energy.ca.gov/2009publications/CEC-200-2009-012/index.html. It should be noted that this graph covers demand from the CAISO balancing authority, which excludes some publicly-owned utilities' balancing authorities within California state limits. However, CAISO covers about 80% of statewide peak demand. *Id.* Furthermore, the CPUC assumes that POUs will be contributing a proportionate amount of energy savings relative to the IOUs, so it is reasonable to assume that they will also be contributing a proportionate amount of demand savings. *See* CPUC, Revised Scoping Memo Assumptions, Technical Attachment Spreadsheet, Load for RPS Calculation, fn 43 (2011).

We urge the Commission to uphold California law and truly treat efficiency as the top priority resource by including future efficiency in its final demand forecast.

2. NRDC recognizes the distinction between committed and uncommitted savings, and urges the CEC, at a minimum, to show how projected efficiency efforts will reduce demand.

NRDC understands the rationale behind classifying projected savings as "uncommitted" instead of "committed," but has long objected to omitting the uncommitted savings.[8] While future standards or efficiency programs may not be finalized yet, neither have the numerous other factors that create demand. The CEC's committed/uncommitted distinction creates asymmetrical treatment of the uncertainty for factors that create, as opposed to reduce, demand. There are reasonable estimations of what California can expect through efficiency efforts, all of which are nonzero amounts. Energy saving from future energy efficiency programs are reasonably likely to occur--as seen by decades of achievements, supporting state laws, and requirements to meet climate goals. If the Commission decides to publish a forecast that contains zero future efficiency, NRDC urges that the Commission, at a minimum, indicate *on that same graph* how efficiency would reduce the demand forecast.

Omitting savings from future energy efficiency programs will result in a gross overestimation of growth in energy demand. This will have significant consequences for policymakers, utilities, and other interested parties (both inside and outside of California) who rely on the CEC forecast and CEC policy guidance on how to make efficiency the top priority resource.

II. Conclusion

NRDC appreciates the opportunity to comment on the Final 2011 IEPR and recommends that the Commission adopt the 2011 IEPR with the inclusion of energy efficiency program savings in the energy consumption demand forecast.

[8] "Committed efforts to reduce demand include authorized utility programs, finalized building and appliance standards, and other policy initiatives that have implementation plans, firm funding, and a design that can be technically assessed to determine probable future impacts. Committed savings also include price and market effects, which represent savings from rate increases and other market effects not related directly to standards and programs. These savings are incorporated directly into the forecast. Uncommitted savings—which, while plausible, have a great deal of uncertainty surrounding the method, timing, and relative impact of their implementation—are considered separately within the *CED 2011 Preliminary* analysis." California Energy Commission, 2011. ***2011 Integrated Energy Policy Report.*** Publication Number: CEC-100-2011-001-LCF. P.108.

ATTACHMENT A:
Excerpt from NRDC Comments on the Draft IEPR - December 23, 2011

Chapter 7: Electricity and Natural Gas Demand Forecast

1. *NRDC strongly urges the CEC to include expected energy efficiency in its projections of energy consumption.*

NRDC recommends that the CEC include expected energy efficiency in its projections of energy consumption as excluding such information produces an inaccurate energy demand forecast. Over the last several years, CEC staff and stakeholders have done significant work to determine projected energy efficiency in the demand forecast. However, this work is not reflected in projections of energy consumption and demand.[9] Currently, the Draft 2011 IEPR's projections of future energy consumption excludes all savings from efficiency programs coming online in 2013-2022—nearly the entirety of the forecast period.[10] While these savings might not be considered "committed" by CEC definition, energy efficiency will continue to provide savings, as it has for the past 35 years, and will continue to be California's top priority resource. Additionally, the CPUC includes projected energy efficiency in its projections of energy consumption.[11] In order to maintain consistency across state agencies and with state policy, the CEC should include the projected efficiency savings (what it deems "uncommitted") in its projections of energy consumption.

Excluding the savings from projected efficiency programs and policies not only counteracts state policy, but it creates an inaccurate forecast as the savings from efficiency <u>are</u> reasonably likely to occur (as seen through the inclusion of efficiency in the IOU procurement plans), which is the criterion for determining what should be included in the forecast. Excluding future efficiency savings causes the forecasted growth to be off by 48%. That is, energy growth from 2012-2022 is expected to be **<u>about half</u>** of what is presented in the statewide electricity consumption forecast, after accounting for future energy efficiency.[12]

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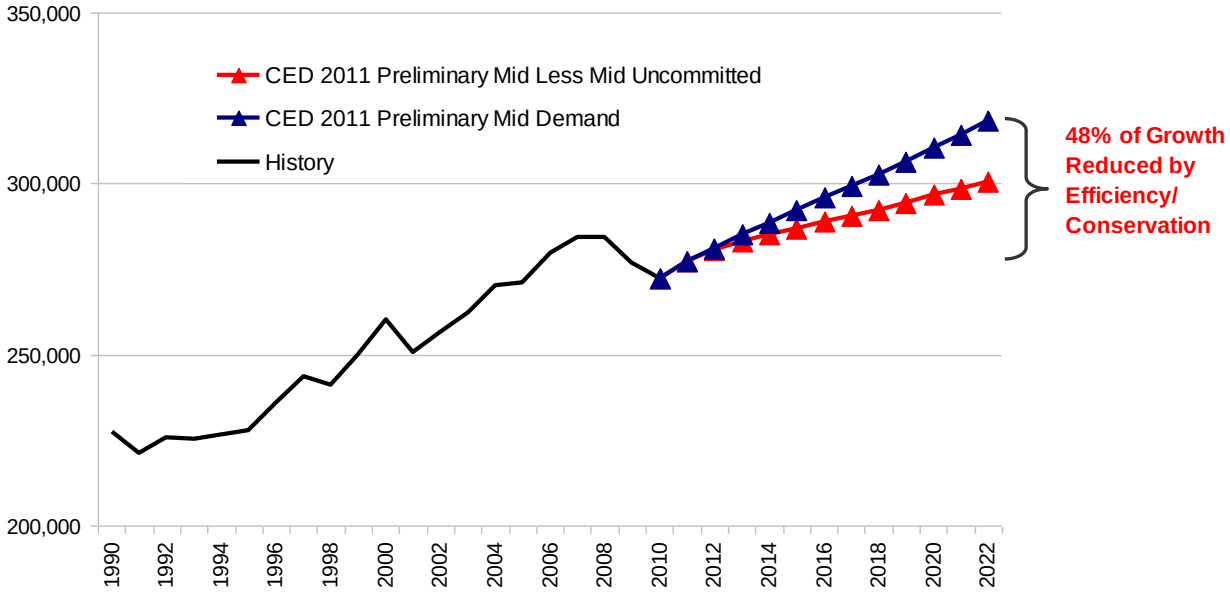
[9] Draft 2011 IEPR, Table 8, Figures 7, 8, pp. 102-104.
[10] "[T]he Energy Commission does not yet consider this set of delivery mechanisms to be committed, so their estimated impacts are not included in the forecasts presented in previous chapters." *Preliminary Forecast*, p. 182.
[11] CPUC, Long Term Procurement Plan Proceeding, Revised Scoping Memo Assumptions, R.10-05-006, Populated Load & Resource Tables for System, (2011). Available at: http://www.cpuc.ca.gov/PUC/energy/Procurement/LTPP/LTPP2010/2010+LTPP+Tools+and+Spreadsheets.htm.
[12] Energy growth from 2012-2022 in the Mid Case is 37,260 GWh. *Preliminary Forecast*, Form 1.1, Mid Statewide Demand Preliminary Forecast. Available at: http://www.energy.ca.gov/2011_energypolicy/documents/2011-08-30_workshop/mid-case/01_Mid_Statewide_Demand_Preliminary_Forecast_Forms.xls. Incremental uncommitted

Figure 1: CEC Projected Energy Demand Growth With and Without Energy Efficiency[13]



While there might be settings in which energy consumption without energy efficiency is needed,[14] the context of the IEPR is one in which including energy efficiency is essential. The IEPR is intended to give an overview of the state of energy in California, which includes projected energy consumption. There are a myriad of factors that lead to increased and decreased energy consumption. To systematically exclude energy efficiency, which decreases energy consumption, creates an inaccurate projection of future energy consumption. In order to improve the accuracy of the demand forecast and treat efficiency as a resource, the CEC should incorporate projected efficiency into the general forecasts of electricity consumption.

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efficiency is expected to reduce that by 17,828 GWh in the Mid Case. *Preliminary Forecast*, Table A-8, Energy Efficiency/Conservation Consumption Savings (GWh), Residential and Non-residential Mid Demand Scenario. Available at: http://www.energy.ca.gov/2011_energypolicy/documents/2011-08-30_workshop/mid-case/10_Mid_Electricity_Efficiency_Conservation_Savings_by_Planning_Area_and_Sector.xls. Energy growth would be 48% lower (17,828/37,260) if incremental uncommitted efficiency were included.

[13] *Id.*; *See* Nick Fugate, IEPR Committee Workshop Presentation, "Efficiency/Conservation," Slide 13 (August 30, 2011). Available at: http://www.energy.ca.gov/2011_energypolicy/documents/2011-08-30_workshop/presentations/02_Nick_Fugate_Efficiency_Conservation_Self-Generation.pdf.

[14] *See* NRDC, *Comments of the Natural Resources Defense Council (NRDC) on the 2012-2022 Preliminary Staff Electricity and Natural Gas Demand Forecast*, (September 15, 2011) (showing the numerous reasons why excluding energy efficiency from the overall graph of projected consumption is incorrect).