

**Comments of the Natural Resources Defense Council (NRDC) on the
Revised California Energy Demand Forecast 2012-2022 (Revised Forecast)**

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NRDC appreciates the opportunity to offer these comments on the *Revised California Energy Demand Forecast 2012-2022* (the “Revised Forecast”). 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 effort involved in creating the Revised Forecast. We value the opportunity to provide the following three suggestions:

- (1) NRDC strongly urges the Commission to include uncommitted energy efficiency in projections of energy consumption, given that such savings are based on decades of achievements, that excluding such information produces an inaccurate demand forecast, and that excluding the future efficiency is inconsistent with state policy.
- (2) NRDC strongly recommends that the CEC at least calculate the amount of uncommitted energy efficiency savings, even if the CEC does not include it in consumption projections, because other state agencies such as the CPUC need the CEC’s estimate to conduct integrated resource planning.
- (3) NRDC supports the CEC’s decision to release a document regarding updated assumptions about uncommitted energy efficiency later in 2012; however, not *to the exclusion* of using the best available estimates in the Final Forecast.
- (4) NRDC recommends that CEC include estimated savings for the 2010 Title 24 residential standards, given that these significant energy savings are reasonably expected to occur.
- (5) NRDC commends the Staff for including some amount of the savings from TV standards in the Revised forecast; however, we recommend that the CEC properly

account for the full impact of the TV standards by using the more accurate methodology of the Appliances and Process Energy Office.

I. Discussion

- 1. NRDC strongly urges the Commission to include uncommitted energy efficiency in projections of energy consumption based on the best available estimates. Excluding all future savings is inconsistent with the decades of savings achievements, produces an inaccurate forecast, and is inconsistent with state policy.**

Since 2003, NRDC has repeatedly recommended that the CEC include uncommitted energy efficiency in demand forecasts.¹ However, nearly nine years later, the 2011 Final Integrated Energy Policy Report's (IEPR) energy consumption projections still excludes all savings from future energy efficiency programs. NRDC had hoped that the Revised Forecast would include energy efficiency. CEC's continual exclusion of efficiency savings inaccurately forecasted energy growth from 2012-2022 to be **48% higher** than it will likely be when accounting for future energy efficiency.² 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.

The Revised Forecast incorrectly excludes all uncommitted energy efficiency from its projections.³ This excludes all future efficiency programs beyond 2011 for POUs⁴ and beyond 2012 for IOUs, and excludes all future codes and standards updates. Plainly, this assumption is incorrect. California has many decades of experience that show significant efficiency savings. The CEC itself shows the significant achievement of approximately 60,000 GWh worth of savings to date.⁵ It is not a reasonable assumption that these programs and standards will stop in 2012, this year. Not only has the CPUC set ten-year long term efficiency goals for the IOUs, but the POUs have set ten-year goals for savings as well. Additionally, the other state agencies are assuming that efficiency efforts will continue beyond 2012 in order to plan for meeting our

¹ "Comments of the Natural Resources Defense Council (NRDC) on the CEC Draft Reports," February 28, 2003.

² See NRDC Comments on the Draft IEPR (December 23, 2011).

³ "Uncommitted efficiency impacts are not estimated for this report, . . ." CEC, Revised California Energy Demand Forecast 2012-2022, p. 32 (February 2012).

⁴ "Committed period extends to 2011 only." CEC, Efficiency/Conservation Presentation, 2012 IEPR Workshop, slide 5 (February 23, 2012).

⁵ *Revised Forecast* at 33.

climate goals and for our procurement future. Therefore, the CEC should not exclude uncommitted efficiency from the Final Demand Forecast.

Excluding uncommitted efficiency produces inaccurate results. Take, for example, POU efficiency programs. The Revised Forecast excludes POU savings from efficiency programs that start after 2011. In other words, this forecast assumes POU efficiency programs currently being run, today, are not actually being run. The fact that POU efficiency programs are currently being run, today, proves incorrect the CEC's assumption that POU programs in would stop in 2012. Plainly, the assumption that uncommitted savings will be zero is not reasonable.

For the CEC to ignore future efficiency in its forecast sends the wrong message that California is not expecting to reduce consumption through efficiency. In particular, the CEC has spent much time working with the POUs, who have scaled up their efficiency operations and achievements over the years. For the Revised Forecast to exclude their current savings contradicts the CEC's productive work with POU efficiency programs over the years. 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 cohesive and 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. We urge the Commission to uphold California law and treat efficiency as the top priority resource by including future efficiency in its final demand forecast.

To accomplish this, we recommend that the CEC use the best available estimate of efficiency for the uncommitted period. There are previous estimates of uncommitted efficiency conducted by the CPUC in 2008, the CEC in 2010, and the CPUC again in 2011. The CEC could use these most recent estimates, or modify all or some of the assumptions in these most recent estimates. The CEC simply needs to use the best available estimate, which is incomparably more reasonable than using zero.

We understand that there is uncertainty in forecasts. But uncertainty does not preclude the inclusion of efficiency. In fact, uncertainty is characteristic of every other variable that is *included* in the forecast. There is uncertainty in what income-per-capita will be in 2022, what commercial-floor-space-per-capita will be in 2022, and what the state's population will be in 2022. But all of these are included. Even more uncertain, the Revised Forecast includes assumptions about all the following: whether "national unemployment rate falls to around 6% by

the end of 2015,” whether the “European debt crisis is resolved,” whether the “European debt crisis worsens,” and whether “the Federal deficit is reduced to a long-term structural level by 2015.”⁶ All these future events have uncertainty—and all are included in the forecast. The Commission simply uses its best available estimates. We only ask the same treatment for efficiency.

- 2. NRDC strongly recommends that the CEC at least calculate the amount of uncommitted energy efficiency savings, even if the CEC does not include it in consumption projections, because other state agencies such as the CPUC need the CEC’s estimate to conduct integrated resource planning.**

NRDC understands the rationale behind *classifying* projected savings as “uncommitted” and “committed,” but has long objected to omitting the uncommitted savings from the consumption forecast.⁷ However, CEC has taken this omission a step further in the Revised Forecast by failing to even calculate the uncommitted savings. While future standards or efficiency programs may not be finalized yet, neither have the numerous other factors that create demand, as detailed in Section 1. The CEC’s committed/uncommitted distinction creates asymmetrical treatment of the uncertainty for factors that create, as opposed to reduce, demand. There are reasonable estimates of what California can expect through efficiency efforts, all of which are nonzero amounts. Energy savings 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. In the least, the Commission must calculate the amount of uncommitted efficiency, even if it declines to include it in consumption forecasts.

Omitting even the basic calculation of uncommitted efficiency savings will have significant consequences for policymakers, utilities, and other interested parties (both inside and outside of California) who rely on the CEC forecast on how to make efficiency the top priority resource. In particular, the California Public Utilities Commission (CPUC) depends on CEC’s uncommitted efficiency savings estimates for its resources planning process. By failing to

⁶ *Revised Forecast* at 25.

⁷ “Committed Initiatives include utility and public agency programs, codes and standards, and legislation and ordinances having final authorization, firm funding, and a design that can be readily translated into characteristics capable of being evaluated and used to estimate future impacts...” Kavalec, Chris, Nicholas Fugate, Tom Gorin, Bryan Alcorn, Mark Ciminelli, Asish Gautam, Glen Sharp, and Kate Sullivan. 2012. *Revised California Energy Demand Forecast 2012-2022*. California Energy Commission, Electricity Supply Analysis Division. Publication number: CEC-200-2012-001-SD-V1. p32.

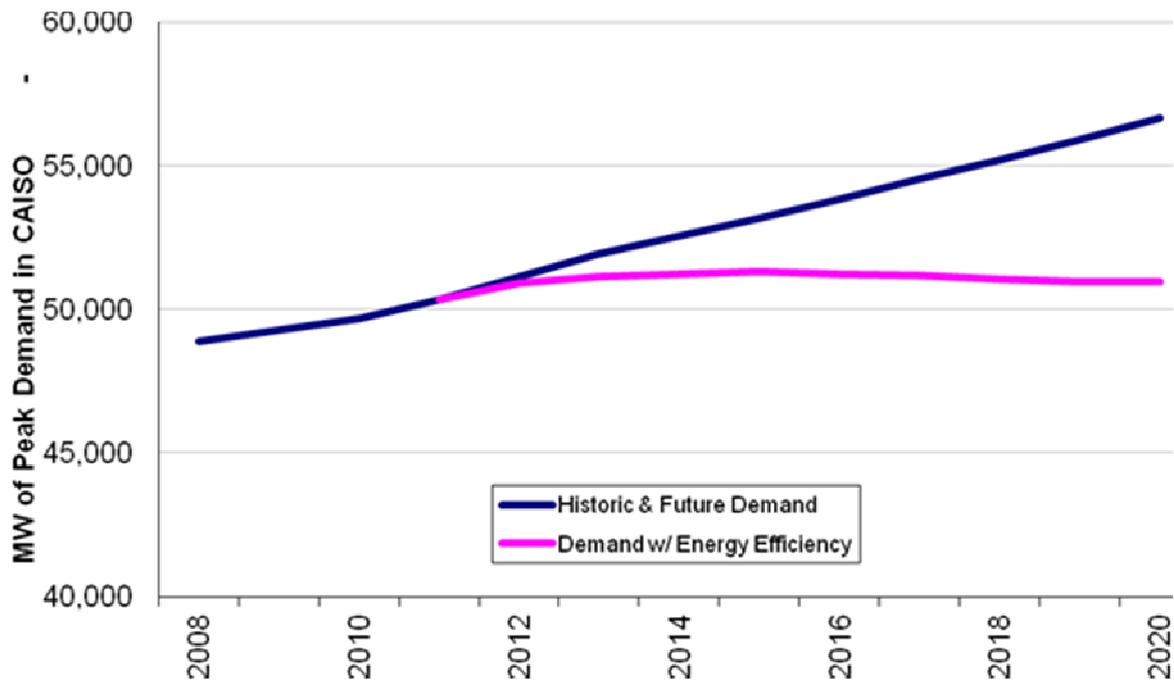
calculate uncommitted savings, CEC will hamper the CPUC's process of accurately forecasting California's energy resource needs.

For example, the CPUC requires that the utilities integrate expected savings from uncommitted efficiency into the utilities long term procurement planning processes, per California law, which are then reviewed and approved by the CPUC.⁸ In the last Long Term Procurement Plan proceeding, the CPUC 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 2020.⁹ These agencies need the CEC's estimate of uncommitted efficiency in order to conduct integrated resource planning and to plan to meet the State's strong climate goals.

⁸ "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).

⁹ 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.

Figure 1: Electricity Demand in California ISO From 2008 to 2020¹⁰



As shown in Figure 1, the difference between including future efficiency and failing to do so, is significant. It is absolutely essential that the CEC at least calculate the amount of uncommitted efficiency, even if it does not include it in its consumption projections, in order for other agencies to fulfill their duties.

3. NRDC supports the CEC’s decision to release a document of new uncommitted efficiency assumptions later in 2012; however, not to the exclusion of using the best available estimates in the Final Forecast.

The CEC has indicated that it intends to develop a separate report in summer 2012 that will include updated calculations of incremental uncommitted efficiency impacts. We encourage this report. However, nothing about releasing a future document precludes the CEC from

¹⁰ 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).

including the best available estimates of uncommitted efficiency in the Final Forecast. There will always be more up-to-date estimates of every variable in the forecast, including economic growth, population growth, etc.—however, we do not assume zero values for these variables as an interim measure. Instead, the CEC uses the best available estimate, which is the reasonable methodology. We simply ask that the CEC do the same for efficiency.

4. NRDC recommends that CEC include estimated savings for the 2010 Title 24 residential standards, given that these significant energy savings are reasonably expected to occur.

NRDC recommends that CEC incorporate 2010 Residential Title 24 Standards into the Final Forecast. Staff excluded the Residential Title 24 Standards, without substitution, due to lack of resources and time.¹¹ While NRDC respects Staff’s time and resource constraints, creating an accurate forecast is essential to the resource and program planning needs of the state. Staff excluded the residential T24 because residential impacts from this update to Title 24 were relatively less significant than in the commercial sector.¹² Although the residential impacts may be less significant than the commercial impacts, the residential impacts of the Title 24 update still affect the amount of energy needed between 2012 and 2022. To exclude an efficiency standard because its savings are relatively lower than another standard’s does not comply with the Staff’s principles of including all savings *reasonably expected to occur*. Therefore, we recommend including these savings in the Final Forecast.

5. NRDC commends the Staff for including some amount of the savings from TV standards in the Revised forecast; however, we recommend that the CEC properly account for the full impact of the TV standards by using the more accurate methodology of the Appliances and Process Energy Office.

NRDC greatly appreciates the CEC’s inclusion of the TV standards in the Revised Forecast. However, the methodology incorrectly underestimates the actual savings from the TV standards. The methodology of the original estimate of the TV standards was to compare a post-standard LCD or plasma, with a pre-standard LCD or plasma. As the Revised Forecast correctly notes, future purchases are by and large not going to be CRTs.¹³ Thus, the savings should be determined by the difference between what a consumer *would* be buying (pre-standard LCD or

¹¹ *Revised Forecast* at 66.

¹² *Id.*

¹³ *Id.* at 67.

plasma) and what a consumer *will* be buying (post-standard LCD or plasma). That difference yields the correct total savings of the TV standards. However, the Revised Forecast uses the difference between a post-standard TV and a CRT. While we understand that the consumer might have previously owned a CRT, the TV that the consumer was going to replace it with, was *not* going to be a CRT. Thus, because the consumer was presumably not planning to buy a new CRT, the comparison should not be made with a CRT, but rather, a pre-standard LCD or plasma. Therefore, we recommend that the Commission use the correct methodology that was originally used to determine the appliance standard savings by the Appliances and Process Energy Office.

II. Conclusion

NRDC appreciates the opportunity to comment on the Revised Forecast. We look forward to continuing to work with CEC and Staff to incorporate all energy efficiency that is reasonably expected to occur, which includes uncommitted efficiency savings, into the Final Demand Forecast.