BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans.	Rulemaking 12-03-014 (Filed March 22, 2012)

CALIFORNIA ENVIRONMENTAL JUSTICE ALLIANCE'S COMMENTS ON THE CALIFORNIA ENERGY COMMISSION'S INCREMENTAL ENERGY EFFICIENCY FORECAST

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The California Environmental Justice Alliance (CEJA) submits these comments on the use of the California Energy Commission's (CEC's) incremental energy efficiency (EE) forecast in this proceeding. These comments are timely submitted within seven days of receiving the forecast on August 1, 2012 pursuant to the schedule set forth in the June 27, 2012 Assigned Commissioner's Ruling. According to the CEC, its July 2012 incremental EE estimates provided are to be used in the LTPP as a "key component" in determining a forecast for procurement purposes.[1] The CEC developed a high, mid, and low case energy savings scenario.[2] Pursuant to the June 27, 2012 Assigned Commissioner's Ruling, parties comments' should address "what combination of values within that analysis are appropriate for each range in the LTPP."[3]

The Commission should carefully consider this issue as need estimates can be significantly reduced depending on what incremental EE value is adopted. At a minimum, the estimate should include savings from the Big Bold Energy Efficiency Strategies. The Commission should also utilize the highest energy efficiency value in this LTPP consistent with the State's environmental and energy goals and policies.

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[1] *Energy Efficiency Adjustments for a Managed Forecast: Estimates of Incremental Uncommitted Energy Savings Relative to the California Energy Demand Forecast 2012-2022*, California Energy Commission (July 18, 2012), at p. 1 [Hereinafter CEC Incremental EE Memorandum].
[2] *Id.* at pp. 1-2.
[3] Assigned Commissioner's Ruling, Attachment at p. 12.

DISCUSSION

1. The Commission Should Include Savings from the Big Bold Energy Efficiency Strategy (BBEES).

None of the values presented by the CEC include *any* savings from the BBEES.[4] This is not reasonable. The four strategies included in the BBEES are: "(1) all new residential construction will be zero net energy (ZNE) by 2020; (2) all new commercial construction will be ZNE by 2030; (3) the heating, ventilation and air cooling industry will be reshaped to deliver maximum system performance by 2020; and (4) all eligible low-income customers will be provided an opportunity to participate in the Energy Savings Assistance Program and will be provided all cost-effective efficiency measures in their homes by 2020."[5] These strategies have been considered "cornerstones" for the State's energy efficiency goals, and they have been incorporated into Scoping Plan for AB 32.[6] To implement these strategies, "action plans are currently completed for commercial Zero Net Energy, lighting, and HVAC, and underway for residential Zero Net Energy, research and technologies, and industrial."[7]

California should expect to meet at least some of these cornerstone goals to be met in compliance with AB 32.[8] For instance, air conditioning units can be expected to be high particularly given advances in newer, more efficient models.[9] In addition, the zero net energy goals are bolstered by a 2012 Executive Order by the Governor calling for 50 percent of government commercial buildings to reach zero net energy.[10] The Commission also released the *2010-2012 Zero Net Energy Action Plan* to support the state's zero net

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[4] *See* CEC Incremental EE Memorandum at p. 10.
[5] D.12-05-015 at p. 15, n.9.
[6] D.12-05-015 at p. 16.
[7] D.12-05-015 at pp. 17-18.
[8] *See* D.12-05-015 at p. 16; *see also* Assistance in Updating the Energy Efficiency Savings Goals for 2012 and Beyond, Itron at p. 15 (March 24, 2007) http://www.cpuc.ca.gov/NR/rdonlyres/D72B6523-FC10-4964-AFE3-A4B83009E8AB/0/GoalsUpdateReport.pdf.
[9] *See supra* at pp. 6-7.
[10] *See* Governor Edmund G. Brown Jr., *Executive Order B-18-12* (Apr. 25, 2012), http://gov.ca.gov/news.php?id=17508

energy goals.[11] New legislation such as AB 758 directs the CEC to implement a program to reduce energy consumption in existing buildings,[12] and AB 1109 requires an 11 percent reduction in electricity consumption from residential lighting and an 8.6 percent reduction from commercial lighting.[13]

It has been estimated that "cumulative gross savings from the BBEES initiatives are estimated to reach approximately 4,600 GWh by 2020."[14] Ignoring the significant impact of these goals is inconsistent with these policy measures and the basis of the decisions that make up the Strategic Plan.

Further, not including any BBEES savings would be a departure from the last LTPP. The Commission has also previously relied on savings from the BBEES in the 2010 LTPP.[15] For all the above reasons, CEJA strongly recommends that the Commission include at least a mid-level value of savings from the BBEES.

2. The Commission Should Assume that the Highest Energy Efficiency Value Will Be Achieved.

California has a host of energy efficiency programs and measures that will dramatically increase EE savings in coming years. In addition, new and innovative energy efficiency programs are constantly being developed. As such, the Commission should rely on the CEC's high-case scenario in this proceeding.

a. Greater Energy Efficiency Savings Will Result from Proper Implementation of the Loading Order and Pursuit of AB 32 Goals.

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[11] *Zero Net Energy Action Plan 2010–2012*, California Public Utilities Commission (Sep. 2011) http://www.cpuc.ca.gov/NR/rdonlyres/6C2310FE-AFE0-48E4-AF03-530A99D28FCE/0/ZNEActionPlanFINAL83110.pdf

[12] *AB 758 Comprehensive Energy Efficiency Program for Existing Buildings*, California Energy Commission http://www.energy.ca.gov/ab758/.

[13] *2011 Integrated Energy Policy Report*, California Energy Commission, at p. 67.

[14] Assistance in Updating the Energy Efficiency Savings Goals for 2012 and Beyond, Itron at p. 51 (March 24, 2007) http://www.cpuc.ca.gov/NR/rdonlyres/D72B6523-FC10-4964-AFE3-A4B83009E8AB/0/GoalsUpdateReport.pdf.

[15] *See* Administrative Law Judge's Ruling Modifying System Track I Schedule and Setting Prehearing Conference in R.10-05-006, Attachment 1, Standardized Planning Assumptions (Part 1) for System Resource Plans (Feb. 10, 2011) at p. 46 (listing the BBEES assumptions for each utility for the Commission's incremental uncommitted EE assumption).

EE savings can be expected from proper implementation of the loading order. The state's loading order establishes EE as the most preferred resource, thus requiring all cost-effective EE to be procured prior to any other sources. "Energy efficiency is the first priority in California's loading order for energy resources."[16] The Commission has most recently provided new guidance to the utilities on implementing the loading order. Specifically, the Commission has clarified that the "loading order applies to all utility procurement, even if pre-set targets for certain preferred resources have been achieved."[17]

As embodied in the loading order, EE is expected to play a major part in California's energy future, including in achieving AB 32's greenhouse gas reduction goals. In its AB 32 Scoping Plan, the California Air Resources Board (CARB) estimates that a significant portion of the greenhouse gas (GHG) reductions necessary to meet AB 32's 2020 goal will come from EE measures.[18] In addition, the *Scoping Plan* includes the goal of reducing demand by 32,000 GWh via EE measures.[19] To reach this goal, CARB recommended "[e]xpanding and strengthening existing energy efficiency programs as well as building and appliance standards"[20]

b. California's Numerous EE Goals and Programs Will Significantly Increase EE Savings

A host of other EE programs shows that the Commission can rely on the CEC's hig-case incremental EE scenario. For instance, the Commission's *California Long-Term Energy Efficiency Strategic Plan* sets a number of EE savings goals including:

- A 70 percent reduction in energy usage in 25 percent of existing homes by 2020;

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[16] Application 08-07-031, *Proposed Decisions Approving 2010 to 2012 Energy Efficiency Portfolios and Budgets*, http://docs.cpuc.ca.gov/published/AGENDA_DECISION/107378.htm#P209_7607 at p. 2.
[17] D.12-01-033 at p 20.
[18] California Air Resources Board, AB 32 Scoping Plan at p. 17, http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf.
[19] Climate Change Scoping Plan, California Air Resources Board (Dec. 2008) http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf at p. 44.
[20] California Air Resources Board, AB 32 Scoping Plan at p. ES-3, http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf.

- a goal for 50 percent of existing commercial buildings to reach zero net energy by 2030;
- a 50 percent reduction in air conditioning loads by 2020;
- efficiency of heating, ventilation, and air conditioning systems will be 50 percent by 2020 and 75 percent by 2030.[21]

Moreover, the Governor's *Clean Energy Jobs Plan* also calls for a substantial EE savings in new and existing buildings.[22] The Plan identifies that "[n]ew buildings can be designed today to use 1/3 to 1/2 less energy than they use today, with little or no cost increase."[23] The CEC has also previously predicted a rate of decline in electricity demand from energy efficiency efforts to be about 10,000 GWh every four years from 2013 forward.[24] This estimate also pre-dates the ambitious goals established in the *Energy Efficiency Strategic Plan*.

c. Energy Efficiency Levels Will Continue to Improve with Advances in Air Conditioning Efficiency

Previous estimates regarding energy efficiency savings from efforts targeting air conditioning have relied on older, less efficient technology. Specifically, previous EE estimates have been based on savings from the Seasonal Energy Efficiency Ration (SEER) 15 air conditioning units.[25] Competitively-priced central air conditioning units with ratings as high as SEER 21 and greater and currently commercially available.[26] Newer more

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[21] California's Long-Term Energy Efficiency Strategic Plan (January, 2011 Update) http://www.cpuc.ca.gov/NR/rdonlyres/A54B59C2-D571-440D-9477-3363726F573A/0/CAEnergyEfficiencyStrategicPlan_Jan2011.pdf at p. 11.

[22] Governor Jerry Brown's Clean Energy Jobs Plan (2010) http://gov.ca.gov/docs/Clean_Energy_Plan.pdf

[23] *Id.* at p. 5.

[24] *Achieving All Cost-Effective Energy Efficiency for California*, California Energy Commission (Dec. 2007) at p. 103, Figure 38.

[25] *See Incremental Impacts of Energy Efficiency Policy Initiatives Relative to the 2009 Integrated Energy Policy Report Adopted Demand Forecast*, California Energy Commission (May 2010) at p. 31.

[26] *Do the Math . . . High Efficiency Air Conditioners Drastically Reduce Costs!,* Horizon Services http://www.horizonservicesinc.com/reference/tips-articles/high-efficiency-air-conditioners-reduce-energy-costs ("Older air conditioning systems have a SEER rating of 10 or under. Today's more efficient air conditioning systems have SEER ratings as high as 23."); Norland, Jim, How High Will SEER Go? Air Conditioning, Heating, and Refrigeration News (Aug. 7, 2006) http://www.achrnews.com/articles/how-high-will-seer-go ("Half a year after 13 SEER became the minimum for new air conditioning systems, equipment offering nearly twice that efficiency rating is on the market. Several manufacturers say their sales of higher-than-minimum efficiency units, generally in the teens, are better than expected. . . Nordyne and the systems it markets in Tappan, Westinghouse, Maytag, and Frigidaire brand lines offer 23 SEER models now in two-ton

efficient units will continue to replace older units, helping to achieve greater levels of energy savings. An incremental EE improvement of nearly 30 percent is realized by selecting a SEER 21 unit over SEER 13 when compared to the SEER 10 basecase.

The CEC's Energy Demand Forecast and its Energy Efficiency Adjustments memorandum do not discuss what SEER rating is used in formulating its efficiency forecasts. However, the presence of more efficient air conditioning units being commercially available on the market should allow the Commission to rely on the high-case scenario presented by the CEC.

d. Expanded Investments in Energy Efficiency Measures is More Cost Effective and Less Economically Risky than Procuring Additional Fossil-Fuel Power Plants

As shown most recently in a report by Ceres (an advocacy organization for sustainable business practices and investment), procurement of additional conventional generation carries with it various risk factors that, particularly when compared to energy efficiency, make it economically risky in the long-term planning context.[27]

Specifically, the report found that: "With an estimated $2 trillion of utility capital investment in long-lived infrastructure on the line over the next 20 years, regulators must focus unprecedented attention to risk—not simply keeping costs down today, but minimizing overall costs over the long term, especially in the face of possible surprises." Further, "[p]lacing too many bets on the conventional basket of generation technologies is the highest risk route."[28] The report recommends greater emphasis on procuring non-traditional resources, especially energy efficiency, which the report shows is the lowest-cost, lowest-risk resource.[29]

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capacity and, as part of the same product line, 21 SEER in three- and four-ton sizes . . . 'Interest in the 23 SEER product has been strong. We've trained over 75 distributor technical service advisors and we're back-ordered on the product. ").

[27] *Practicing Risk-Aware Electricity Regulation: What Every State Regulator Needs to Know*, Ceres (April 2012) http://www.rbinz.com/Binz%20Sedano%20Ceres%20Risk%20Aware%20Regulation.pdf

[28] *Id.* at p. 3.

[29] *See id.* at p. 29, 35.

e. The CEC's Mid-Case Scenario Can Be Used by the Commission for a Sensitivity Analysis.

The Commission should rely on the CEC's high-case scenario when formulating its energy efficiency assumption. Other scenarios provided by the CEC should only be relied on should the Commission opt to conduct a sensitivity study.

Respectfully submitted,

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