



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
WASHINGTON, D.C. 20460

March 24, 2008

OFFICE OF  
AIR AND RADIATION

California Public Utilities Commission  
California's Investor Owned Utilities (PG&E, SCE, SDG&E and SoCalGas)  
Other Interested Parties

RE: Comments of the U.S. Environmental Protection Agency on the California Preliminary Energy Efficiency Strategic Plan (Rulemaking 06-04-010, Supplemented Draft, March 6, 2008)

Dear Sirs and Madams:

The United States Environmental Protection Agency (USEPA) appreciates the opportunity to provide comments on the draft California Energy Efficiency Strategic Plan (Plan). We provide our comments based on our experience in several areas. These include as a:

- Member of the Clean and Diversified Energy Advisory Committee (CDEAC) of the Western Governors Association,
- Sponsor of the National Action Plan for Energy Efficiency (National Action Plan), and
- Agency that has worked with the California investor owned utilities (IOUs) and numerous other utilities as part of the ENERGY STAR program for many years.

Overall, California is outlining an aggressive expansion in energy efficiency and renewable energy use in the state that is consistent with the policy recommendations and implementation steps of the CDEAC and the National Action Plan. USEPA applauds the CPUC, the California IOUs, and all the other active stakeholders for creating this aggressive draft Strategic Plan.

I would like to specifically comment on how California's Plan helps implement key recommendations and goals of the National Action Plan. I would also like to comment on a number of aspects of utility program planning, implementation and evaluation that could be considered in the development of the IOUs 2009-2011 energy efficiency portfolios to be filed with the CPUC in May, 2008.

### **National Action Plan on Energy Efficiency**

The National Action Plan is the result of representatives from more than 60 leading and diverse organizations from across the country coming together to review the barriers to greater investment in cost-effective energy efficiency and to develop goals and recommendations for overcoming these barriers. A number of leaders from California-based organizations have participated in this effort as well as have joined together in a California-wide commitment to advance energy efficiency under this effort.

The National Action Plan was developed because organized energy efficiency programs such as those outlined in the Plan can capture energy savings at a lower cost than the cost of building new generation and thereby contribute to lower energy bills and lower emissions of greenhouse gases than would otherwise occur. Through its Vision for 2025, the National Action Plan now outlines a set of 10 implementation goals for pursuing an aspirational goal of achieving all cost-effective energy efficiency by 2025.

California has already addressed many of the implementation goals of the Vision for 2025, and the draft Plan contains further support for these goals, by including:

- A vision statement that all cost-effective, reliable, and feasible energy efficiency measures and actions are implemented in an integrated manner.
- New goals for the energy use of all residential and commercial new construction by 2020 and 2030.
- New work to improve the consistency and availability of the energy use information available to energy consumers.
- New energy efficiency programs such as Home Performance with ENERGY STAR and Quality Installation that help improve the quality of energy efficiency services being delivered to the residential market place.

### **Utility Program Planning, Implementation and Evaluation**

Comments in this area are organized by three program types: consumer products, commercial buildings, and homes (new and existing).

#### Consumer Products

ENERGY STAR products are widely recognized in the marketplace. Today, there are over 50 product categories of products, ranging from battery chargers to commercial kitchen equipment where ENERGY STAR models are available and these products offer significant savings over typically purchased products. Nationally, over 500 electric and gas utilities have adopted ENERGY STAR as an energy efficiency branding platform, and rely on the program for specifications, marketing materials, and as a network for collaboration with other market actors. As the breadth of products expands, some utilities are finding the need to adapt their energy efficiency program designs away from consumer rebates, towards other market intervention techniques. In our comments below, USEPA details some suggestions on efficiency programs that may be useful to consider as the 2009-2011 energy efficiency program portfolios are developed.

- Adapt evaluation, measurement, and verification (EM&V) methods to the needs of a new set of products such as consumer electronics. USEPA has found that the current CPUC requirements, requiring a high degree of certainty that every product rebated goes to a specific ratepayer, will likely create a barrier for several product types that are necessary to reduce energy use in homes. Specifically, consumer electronics, which are a growing source of energy use, are not well suited for consumer rebate strategies, since typically justifiable rebates of \$10 or \$15 have little impact on the purchase decision when a consumer is purchasing a television worth \$800 or far more. Requiring utilities to provide consumer level data will introduce a barrier to the successful promotion of more

energy efficiency products. New EM&V methods that track bulk purchases, market share, or market trends may provide more flexibility and allow IOUs to implement more market oriented, dynamic programs. Allowing for flexibility and a fast moving program is particularly important in this product area, where products change every year.

- Adapt EM&V methods to account for lighting savings that exceed Title 24. On the basis of the work that USEPA has done with California IOUs, we have found that they have difficulty developing programs that go "beyond Title 24" with respect to lighting. The key problem relates to finding a method for accounting for a Title 24 "baseline" and how to count and take credit for savings in excess of Title 24. USEPA estimates these lighting savings to be substantial—on the order of 1,000 kWh per home per year. We are interested in working with the CPUC and other stakeholders on developing innovative EM&V methods to account for these savings that are possible today, but not being pursued by IOUs. We believe that home raters, who could count fixtures (rather than the builders), may be able to play a role in program documentation, but there are likely to be several viable approaches.
- Expand the scope of market transformation program efforts. USEPA agrees with the draft Plan's goals for expanding market building and transformation activities, and would like to emphasize the importance of increased funding for activities such as retail staff training, advertising, and general awareness. An integrated approach to building market share is needed, particularly for products that will not respond to small rebates such as TVs and desktop computers.
- USEPA recommends that the IOUs in their 2009-2011 plans begin to take steps to plan for a long term lighting strategy, placing a larger emphasis on permanent hard-wired fixtures. Market share for CFLs has grown significantly (now at 20% nationally—up from 11% in 2006), while ENERGY STAR light fixtures have a market share of 5%, leaving large untapped potential at both the retail level, and in the new construction markets.

### Commercial Buildings

There is increasing national awareness of the value of measuring energy use and energy savings based upon whole building energy performance. The need to measure and communicate actual building energy performance is underscored in the draft Plan. Benchmarking and labeling are key elements of California's proposed commercial buildings strategy, with the goal of aligning commercial building labels and benchmarking practices to most effectively address energy efficiency. At the national level, USEPA has enabled the measurement of building performance by developing the national energy performance rating system for commercial buildings. Use of this system is growing rapidly in California and throughout the country, with more than 70,000 buildings already receiving ratings. In California, buildings owner and managers, state facility managers, energy service providers and utilities have used the USEPA rating and other benchmarking features available on-line through the Portfolio Manager tool to achieve their goals. Using these national program resources more than 7,800 buildings in California have received ratings, and the state is now positioned to further accelerate benchmarking and leverage

the momentum it has generated through Executive Order S-20-04, passage of AB 1103, and the use of the USEPA rating in current utility energy efficiency programs.

The Plan recognizes the importance of measuring building energy performance comprehensively to place a building on a trajectory to meet the goal of zero net energy buildings. The utilities can support this in their 2009-2011 energy efficiency portfolio filings in the following ways.

- Continue to provide national leadership in commercial building benchmarking using the national platform provided through US EPA's Portfolio Manager tool. The IOUs and the CPUC are already promoting whole-building energy benchmarking as an integral step in moving towards zero net energy buildings. Great progress has been made by the California IOUs in benchmarking state buildings under the governor's Green Building Executive Order S-20-04. USEPA remains committed to work with the IOUs to facilitate a robust, quick, and easy automated benchmarking program that is applicable in all utility customer classes, and which will assist with implementation of AB 1103.
- Adopt strategies that motivate businesses to strive for energy performance labeling. The strategic Plan recognizes the potential value of an annual energy label on a whole building basis to send signals to the market players that actual energy performance is a value in the commercial building market. Currently, the ENERGY STAR label for high performing commercial buildings is positioned in the California market for the purposes of recognizing the best performing buildings and could be used to support this strategic objective. ENERGY STAR Building labels are already a well-recognized, national brand that rewards buildings that perform in the top 25% of buildings in their sector with an ENERGY STAR label. In California, roughly 950 buildings have already earned the ENERGY STAR label.
- Adopt EM&V methods to consider the energy impact at the whole building level, for example, whole-building energy benchmarking. The use of such methods allows for the measurement of the benefits of important operational, management and behavioral changes that can result in real and persistent energy savings, for example, retrocommissioning. These are the opportunities that traditional demand side management programs have tended to overlook or undervalue, in part because of the structure of EM&V protocols. In contrast, a whole building performance strategy linked to utility programs can encourage building owners and operators to find and exploit these opportunities, and then maintain the savings. We have found that the current CPUC requirements, requiring a high degree of certainty at the energy-efficient equipment level creates a barrier for holistic energy efficiency improvements necessary to reach net zero energy buildings. Shifting stakeholders' attention toward whole building performance will bring substantial benefits to the commercial building sector in California
- Encourage performance-driven incentive strategies that are linked to benchmarking and the overall energy performance of a building. The Plan encourages utility programs to integrate additional strategies beyond traditional customer incentives that focus on energy efficient equipment. USEPA has found that simply installing energy efficient equipment does not guarantee improvement in the overall energy performance of buildings.

Aligning incentives to reward performance improvements is a final, key step in moving buildings onto the path to zero net energy. The IOUs can begin to explore performance-drive incentives within their 2009-2011 portfolios.

## Homes

Improving the energy efficiency of both new and existing homes has been an important part of ENERGY STAR for many years. The ENERGY STAR for Homes program started in 1996 and experienced exponential growth. By the end of 2006, over 3,500 homebuilder partners were active in the program and nearly 750,000 qualified homes had been built. Nearly 12 percent of all new housing starts in 2006 were ENERGY STAR qualified and, in many areas, ENERGY STAR qualified homes represented 20 percent or more of local home starts. Home Performance with ENERGY STAR was launched in 2001 to capture the significant savings potential of improving whole-house performance. Since 2001, contractors participating in over 20 locally-sponsored home performance programs have improved the energy efficiency of over 35,000 homes.

- USEPA shares California's Strategic Plan goals to transform the housing market to new homes with low carbon impact. EPA has observed that Title 24 code performance compliance currently does not recognize key next-generation, energy efficiency technologies and construction practices targeted in future specifications for ENERGY STAR Qualified Homes. As a result, USEPA recommends further cooperation with California stakeholders to help promote these energy efficiency technologies and construction practices with ENERGY STAR Qualified Homes specifications for California that continue to ensure at least 15 percent greater efficiency than the prevailing Title 24 code.
- For existing homes, USEPA agrees that a whole-house systems approach will be necessary to reduce energy use by 40%. We encourage utilities to continue to support Home Performance with ENERGY STAR and develop consistent criteria and standards for programs throughout California. The adoption of incentive strategies that promote a whole house approach, without competing with other consumer rebates, is critical to success. USEPA has seen that customer financing with attractive rates (i.e. buy down rate) or a cash rebate (of equivalent value) for comprehensive improvements can be effective strategies when available through participating home performance contractors. Similarly, the methods for assessing cost-effectiveness need to be better aligned with this strategy and less driven by the cost-effectiveness of incremental measures that are often chosen by the homeowner for reasons other than direct energy savings.
- Finally, USEPA supports California's heating, ventilation and air conditioning (HVAC) strategy that promotes quality installation and maintenance. ENERGY STAR launched an HVAC Quality Installation program this year that is based on an ANSI approved quality installation specification developed by the Air Conditioning Contractors of America. This program can be the platform for promotion of quality installation in California through the IOU's 2009-2011 plans.

In closing, USEPA looks forward to working together in partnership with all California stakeholders on the further development of the Plan, as well as its implementation in the coming years.

Sincerely,

A handwritten signature in black ink, appearing to be 'KH', with a long horizontal flourish extending to the right.

Kathleen Hogan, Director  
Climate Protection Partnerships Division