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By Regular and Electronic Mail

(strategicplanningcomments@semprautilities.com)

Cathy Fogel, Coordinator
Energy Efficiency Strategic Planning Process
California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102

RE: Comments of California Attorney General on Preliminary Energy Efficiency Strategic Plan

Dear Ms. Fogel:

Thank you for the opportunity to provide comments on the Preliminary Energy Efficiency Strategic Plan (Plan) to the Public Utilities Commission (PUC).¹ The Plan is intended to serve as a long-term blueprint for the State to achieve all available energy efficiency for new and existing buildings. Accordingly, the Plan is very broad, identifying research and development needs; modifications to the state building code; new legislation; improvements in federal efficiency standards; training and education; local building codes and enforcement; and rebates, incentives and financing programs. The Plan also will provide a basis for the investor owned utilities' 2009-2011 energy efficiency portfolio proposals. (Plan at p. ix)

We commend the PUC for endorsing the California Energy Commission's (CEC) statewide policy of meeting growing electricity demands by first implementing all economically feasible energy efficiency and demand reduction measures (2007 Integrated Energy Policy Report, December 5, 2007). The CEC's Energy Action Plan II (CEC 2005) declares that "cost effective energy efficiency is the resource of first choice for meeting California's energy needs. Energy efficiency is the least cost, most reliable, and most environmentally-sensitive resource, and minimizes our contribution to climate change." The recent update to the Energy Action Plan identifies energy efficiency as "the most important tool for addressing greenhouse gas emissions in the energy sector... ." (Energy Action Plan Update (CEC February 2008, p.6)). The CEC also notes that:

[m]eeting our AB 32 goals will require, under any scenario, unprecedented levels

¹ The Attorney General provides these comments pursuant to his independent power and duty to protect the natural resources of the State from pollution, impairment, or destruction in furtherance of the public interest. (See Cal. Const., art. V, § 13; Cal. Govt. Code, §§ 12511, 12600-12; *D'Amico v. Board of Medical Examiners*, 11 Cal.3d 1, 14-15 (1974).) These comments are made on behalf of the Attorney General and not on behalf of any other California agency or office.

of energy efficiency investment. This necessitates a more rigorous examination of our energy efficiency options and the setting of more aggressive energy efficiency goals. (Id.)

The CEC indicates that the next steps to reaching these goals must include “[n]ew strategies to address existing buildings, going beyond current utility programs and emphasizing a more comprehensive approach.” (Id., p.9.)

We applaud the PUC for its actions to support these goals, including the 3-part “vision” established by the PUC for the Energy Efficiency Strategic Plan as well as the the PUC’s “Big Bold Energy Efficiency Strategies,” which include that all new residential construction in California will be zero net energy by 2020 and all new commercial construction in California will be zero net energy by 2030.

We are submitting these comments not to criticize the excellent work that the PUC has done, but to try and suggest some possible improvements by urging consideration of programs and priorities that, if included in the Strategic Plan and the 2009-2011 portfolio proposals, could potentially increase energy savings and renewable generation in the State, and accelerate achieving the greenhouse gas reductions required by AB 32 and Executive Order S-03-05. Given the State’s aggressive targets for energy savings, all proposals that could help achieve those goals should be considered, even if there are some uncertainties or impediments to implementation.

The Plan focuses in large part on increased energy efficiency for new buildings, research and development to achieve greater efficiency in new buildings, and building code and legislative changes. Therefore, our comments focus on energy efficiency programs that the utilities could implement to reduce energy use in *existing* buildings. Here are some examples for your consideration:

- Expand the utilities’ cool roof programs to increase promotional and educational outreach to the roofing industry, builders, and homeowners about the benefits of lighter colored roofs, the availability of higher reflectance cool roof products, and rebates that the utilities offer.² In addition to reducing electricity use for air conditioning, cool roofs also increase surface reflectiveness, which, in its effect on climate, is equivalent to reducing the amount of CO₂ in the atmosphere.³ Because of this, cool roofs can be an

² The utilities offer rebates for new roofs with solar reflectance of at least 0.25. (See [http://www.sce.com/RebatesandSavings/Residential/ Heating+and+Cooling/CoolRoof/](http://www.sce.com/RebatesandSavings/Residential/Heating+and+Cooling/CoolRoof/) and <http://www.pge.com/myhome/saveenergymoney/rebates/remodeling/coolroof/>, select PG&E Catalog and Rebate Application). The most common type of residential re-roofing product, asphalt shingles, are now being manufactured that meet this standard. See, Application/Spec. Sheet for “Prestique Cool Color Series” at http://www.elkcorp.com/application_instructions/PrestiqueCoolColorFinal02.07.pdf

³ See “Energy End-Use Efficiency, March 1, 2008, Art Rosenfeld, Commissioner, California Energy Commission, pages 23-28 http://www.energy.ca.gov/commission/commissioners/rosenfeld_docs/index.html

important tool in the fight against global warming.

- Adopt “feed-in tariffs” that allow smaller generators to invest in excess renewable generation capacity. These tariffs would combine features of the existing net zero metering tariff (which does not require the utility to pay for a customer’s excess electricity) and a requirement that the utility purchase excess electricity at a rate that fully values the environmental and other benefits of the renewable power. The Plan could identify this as a Near Term strategy in Chapter 8 (Demand Side Management). A feed-in tariff allows for greater use of available space on large commercial building roofs and parking lots for solar PV generation, and will also allow for greater generation of electricity from biomass wastes and residues from agricultural, forestry and municipal waste. Only 15% of the technically recoverable potential of these wastes is currently being converted into clean energy in California.⁴ This approach has been extremely successful in increasing solar generation in other countries.⁵
- Focus a substantial share of the utilities’ energy efficiency expenditures on the geographic areas where the load reduction is most needed (i.e, where the utility’s capacity to meet peak demand is most constrained); load reduction in those areas would provide the greatest benefit because it could avoid the need to operate the least efficient power plants to meet peaks in demand, and could avoid or delay the need for new power plants and/or transmission lines.
- Create and expand programs for on-bill financing (or “pay as you save”) for energy efficiency improvements to existing buildings; expand the on-bill financing programs that are offered to small businesses to include all utilities and businesses, as well as multi-family and residential customers (for example, use on-bill financing to fund (in whole or part) combined heat and power facilities; replacement of old, inefficient central air conditioning systems or heating systems; window replacement; solar hot water heater installation, purchase of efficient washing machines and refrigerators, etc.). The Plan refers to developing “loans that remain with the property through owner/occupant turnover” as a financing tool for *new* buildings (Plan, p.27, #1). This could also be a tool for financing energy efficiency improvements to *existing* buildings (Plan, p.27, #2).
- Adopt a grant program for retro-commissioning of existing buildings; for 13 facilities that underwent retro-commissioning, Los Angeles County’s Internal Services Department reported average facility electricity savings of 20% and natural gas savings

⁴ Recommendations of the Economic and Technology Advancement Advisory Committee to CARB, February 2008, p.5-14.

⁵ Germany has 23% of total global solar energy production, and accounted for 58% of all new solar generation capacity installed in 2005. Stern Review on economics of climate change (October 2006), Part IV, p. 367 (Report to Prime Minister and Chancellor of the Exchequer), at <http://www.occ.gov.uk/activities/stern.htm>

of 40%.⁶ While the Plan includes “develop[ing] tools and industry standards” for retro-commissioning as a Near Term strategy (Plan, p.27), actual programs to implement retro-commissioning could be accelerated to a “Near Term” strategy, using the extensive guidance that already exists.⁷

- Require that the largest 10% of utility customers undertake an independent, comprehensive energy efficiency assessment within 12 months. Once a customer has this information, they are much more likely to implement cost-effective energy efficiency measures that have been identified. The assessment could be provided at no cost under existing programs offered by the California Energy Commission and/or U.S. Department of Energy, Industrial Technologies Program (which provides free assessments for businesses with annual energy bills of \$100,000 or more),⁸ or it could be funded by the utilities. This will help achieve reductions in energy use in commercial buildings, which are the largest power consumer in the State (38% of all electricity and 25% of natural gas). As the Plan notes, the commercial sector is “arguably the best opportunity to adopt successful and cost-effective energy efficiency standards.” (Plan, p.24). Recently, the City of Chula Vista adopted a requirement that businesses conduct an energy assessment every three years and upon change of ownership.⁹
- Instead of mail-in rebates, consider distributing discount cards to consumers who request them (either on-line, or by sending in a request card). The discount cards could be used at participating retailers for instant discount on purchases of the most energy efficient appliances. (For example, the card could be used to purchase the most efficient washing machines (Tier 3), that qualify for a \$200 rebate in most areas of the State).

⁶ County of Los Angeles Internal Services Department, Memorandum to Supervisors from Dave Lambertson dated August 1, 2007, Attachment 1, page 4; and see “A Competitively Bid Retrocommissioning Project In the County of Los Angeles - A Model Process?”, R. Pierce and N. Amarnani, at www.peci.org/ncbc/proceedings/2006/09_Pierce_NCBC2006.pdf

⁷ This guidance includes the California Commissioning Guide: Existing Buildings and California Commissioning Guide: New Buildings (2006 California Commissioning Collaborative) at www.documents.dgs.ca.gov/green/commissioningguideexisting.pdf and www.documents.dgs.ca.gov/green/commissioningguidenew.pdf and A Retrocommissioning Guide for Building Owners (2007) developed by Portland Energy Conservation, Inc. with funding from U.S. EPA Energy Star Program, link provided at <http://www.peci.org/CxTechnical/resources.html>.

⁸ See <http://www.energy.ca.gov/process/industry/> and <http://www1.eere.energy.gov/industry/>.

⁹ See Climate Change Working Group Final Recommendations Report (4/1/08) (recommendation #3) at <http://www.chulavistaca.gov/clean/conservation/Climate/ccwg1.asp> and Los Angeles Times, April 6, 2008, “Chula Vista adopts green building and remodeling standards” at <http://latimesblogs.latimes.com/pardonourdust/2008/04/chula-vista-the.html>

- Focus on programs to increase use of existing, available products and technology to reduce energy use in existing buildings. For example, create and expand utility programs to fund “Standard Offer Contracts” to reduce energy use in buildings as an effective way to reduce energy use in existing commercial and multi-family residential buildings that minimizes paperwork and transaction costs.¹⁰
- Increase energy efficiency of new multi-family residential construction as a Near Term (2009-11) activity (see Plan, p. 11-12). The Plan indicates that “[n]ew multi-family dwellings were not considered in detail.” Including multi-family buildings could provide a significant benefit because in many urban areas of the State a large portion of new residential units are condominiums or other multi-family dwellings.
- Expand existing rebate and incentive programs to include solar hot water heaters for single family and multi-family residences to address the high upfront installation costs that impede wider use of this technology. As the Plan notes, natural gas use in residences accounts for 36% of all natural gas consumption in the State. (Plan, p.9.)
- Create and expand programs to provide training and incentives to implement a Time of Sale Energy Checkup Program. Some areas, including San Diego Gas & Electric, are implementing such a program in partnership with EnergyWise REALTORS®.¹¹
- Provide incentives (including rebates, on-bill financing or other low-cost financing) relating to HVAC under Strategy # 4. Incentives for advanced HVAC technology is identified as a Short Term (2012-2015) strategy, but it would seem that providing incentives for using currently available advanced technology could be a Near Term strategy (2009-11). The Plan could include a goal of replacing all central air conditioners performing below the level of 8.0 energy efficiency ratio (EER) with units that perform above 13 EER. These incentive programs should target the oldest, most inefficient systems, including systems that do not comply with Title 24 standards.
- Adopt programs to aggressively deploy current Light Emitting Diode (LED) technology for downlighting and cove lighting applications, and other applications where they can replace halogen bulbs. This was recommended to the Air Resources Board in “Recommendations of the Economic and Technology Advancement Advisory Committee (ETAAC), Final Report,” February 11, 2008, p.5-5 to 5-6.

¹⁰ Extensive Standard Offer programs are implemented in Texas for both residential and commercial building energy efficiency. See, Texas New Mexico Power 2008 Residential & Small Commercial Standard Offer Program, <http://www.tnpeefficiency.com/Res/resindex.shtml>; AEP Hard-to-Reach Standard Offer Program, <http://www.aephtrsop.com/>; Excel Energy Commercial Standard Offer Program, <http://www.xcelefficiency.com/CI/Index.shtml>; El Paso Electric Residential and Small Commercial, Hard-to-Reach, and Commercial and Industrial Standard Offer Programs, <http://www.epelectricefficiency.com/>

¹¹ See http://californiaenergyefficiency.com/calenergy_old/sdge/3036.doc and http://californiaenergyefficiency.com/calenergy_old/pge/2032.pdf

The actions we suggest above have been implemented in some locations and/or recommended by experts in the field. If they have the potential to provide cost-effective energy reductions or increased generation of renewable energy, it makes sense to fully investigate the feasibility of implementing these actions on a wider scale. We appreciate your efforts to address this critically important issue and welcome the opportunity to discuss these issues with you further.

Sincerely,

/Sandra Goldberg/

SANDRA GOLDBERG
Deputy Attorney General

For EDMUND G. BROWN JR.
Attorney General